# NPDES Permit #IDS027561
# Permit Appendix B - Annual Report Form

This Annual Report is due no later than January 30 of each year, beginning in Calendar Year 2023, and reflects the relevant reporting period, starting October 1, 2021. See Permit Part 6.4.2

Annual Reports and any attachments must be sent to IDEQ by U.S. Postal Mail to the following address:

*Regional Administrator*
*Idaho Department of Environmental*
*Quality Attn: Water Quality Program*
*Boise Regional Office*
*1445 N. Orchard St.*
*Boise, ID 83706*

Complete Sections 1 through IV. Do not leave any questions blank.

**MS4 Permittee Name/Organization:** Ada County Drainage District No. 3

## Permit Number: IDS027561

Reporting Period:

- ○ **Year 1 Reporting Period:** Oct. 1, 2021 – Sept. 30, 2022 – **Annual Report due date:** January 30, 2023
- ○ **Year 2 Reporting Period:** Oct. 1, 2022 – Sept. 30, 2023 – **Annual Report due date**: January 30, 2024
- ○ **Year 3 Reporting Period** Oct. 1, 2023 – Sept. 30, 2024 – **Annual Report due date:** January 30, 2025
- ◉ **Year 4 Reporting Period** Oct. 1, 2024 – Sept. 30, 2025 – **Annual Report due date:** January 30, 2026
- ○ **Year 5 Reporting Period** Oct. 1, 2025 – Sept. 30, 2026 – **Annual Report due date: September 30, 2026**
- ○ Other

Certification: *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

**Signature:**

**Printed Name:** Steve Sweet

**Title:** Ada County Drainage District No. 3 Chairman

**Date:** January 21, 2026



Clear Page 1

Clear Page 2

## Section I. General Information

**MS4 Facility Site Name:** Ada County Drainage District No. 3

**MS4 Facility Organization Formal Name:** Ada County Drainage District No. 3

**MS4 Facility Contact Name:** Abigail R Germaine

**Title:** Legal Counsel for Ada County Drainage District No. 3

**MS4 Contact Telephone:** (208) 343-5454

**MS4 Contact Email Address:** arg@elamburke.com

**MS4 Facility Contact Type (all that apply):** ☐ Owner ☐ Operator ☑ Main Contact

**MS4 Facility Site Address:** 251 E Front Street, Suite 300

**MS4 Facility Site City, State, Zip Code:** Boise, Idaho 83702

**MS4 Facility Site Mailing Address:** ***if different from above*** Same as above

**Is the MS4 Facility Site Located On Tribal Land?** ◯ **Yes** ◉ **No**

**MS4 Facility Jurisdiction Type (check all that apply):**

- ☐ Federal
- ☐ State
- ☐ College or University
- ☐ State Highway Department
- ☐ Municipal:
- ☐ County
- ☐ City or Town
- ☐ Highway District
- ☐ Tribal
- ☑ Other: Drainage District

## List All Receiving Water(s) For the MS4 Discharges:

The Boise River and Loggers Creek, a tributary of the Boise River.

Clear Page 3

**Section II. Permittee Responsibility:**
*Please answer all questions. If the answer is "No," or "Not Applicable" and no other direction is provided, use the Comments field at the end of this section to explain the reason and the expected date(s) that the requirement will be met, and/or to explain why the requirement does not apply.*

1. **This Permittee organization shares implementation responsibility for Permit compliance with one or more Permittees.**
   ◉ *Yes* ○ *No* ○ *Not Applicable*

   *Is the agreement between the Permittees described/cited in the Stormwater Management Program (SWMP) Document?*

   ◉ *Yes* ○ *No* ○ *Not Applicable*

2. **This Permittee organization shares implementation responsibility for Permit compliance with one or more outside (non-Permittee) entities.**

   *Is the agreement with these other entity(ies) described/cited in the SWMP Document?*

   ○ *Yes* ◉ *No* ○ *Not Applicable*

3. **This Permittee organization maintains relevant ordinances or other regulatory mechanisms to control pollutant discharges into and from the MS4 to meet the requirements of the ermit.**
   ○ *Yes* ◉ *No* ○ *Not Applicable*

   *(If "No," use the Comment field to specify on overall progress to adopt adequate ordinances or utilizing available regulatory mechanisms.)*

4. **This Permittee organization's SWMP Document is posted on a publicly accessible website.**
   ◉ *Yes*

   Identify the URL for the webpage where the SWMP Document can be accessed:

   http:// https://adacountydrainagedistrict3.org/

   ○ *No*

   ○ *Not Applicable*

5. **The Permittee organization provided a summary of total costs associated with SWMP implementation over the reporting period.**

   ◉ *Yes;*

   ○ *No*

   ○ *Not Applicable*

Clear Page 4

6. **This Permittee organization regularly tracks certain activities to set priorities and assess compliance with the Permit requirements.**

(●) *Yes* ( ) *No* ( ) *Not Applicable*

7. **During the reporting period, responsibility for SMWP implementation has changed due to a Transfer of Ownership or Operational Authority over a geographic portion of the MS4.**

**This Permittee's SWMP Document has been updated to reflect these changes in responsibility for any new or transferred areas served by the MS4.**

( ) *Yes*

*If yes, use the Comments field to provide a brief statement summarizing the change in ownership or operational authority.*

(●) *No*

( ) *Not Applicable*

***Section II Comments***:

Questions 1: Please see Attachment K - Ada County Drainage District No. 3 Stormwater Management Plan (NPDES Permit #IDS-027561) and attached Appendix A - Amended and Restated Intergovernmental Agreement for Roles and Responsibilities Under the National Pollutant Discharge Elimination System Permit (NPDES Permit #IDS-027561).

Question 3: Ada County Drainage District No. 3 does not have the authority or jurisdiction to implement ordinances or regulations to control pollutant discharges. The district boundaries of Ada County Drainage District No. 3 fall within the jurisdiction of Boise City and Ada County Highway District ("ACHD"). Both Boise City and ACHD have enforcement authority. Ada County Drainage District No. 3 does implement education and information outreach as necessary at the Ada County Drainage District No. 3 facilities.

Question 5: Please see Attachment A - SWMP Implementation Costs

Clear Page 5

**Section III. Status of SWMP Control Measures**
*Please answer all questions for each SWMP control measure and associated component activity. In the Comments field, cite any relevant information and/or statistics that helps illustrate the Permittee's implementation of the required action/activity.*

*If the answer is "No," use the Comments field to explain the reason, and outline the expected dates that the requirement will be met.*

*If the requirement does not apply to the Permittee's organization, mark "NA" and explain why it does not apply in the Comments field.*

***Public Education, Outreach and Involvement Program (Permit Part 3.1)***

8. **This Permittee organization conducts an education, outreach, and public involvement program based on stormwater issues of significance in the Permittee's jurisdiction.**

- ○ *Yes, this organization conducts the education, outreach, and involvement activities required by the Permit*
- ◉ *Yes, this organization works through contract with other entities to conduct the education, outreach, and involvement activities required by the Permit*
- ○ *No*
- ○ *Not Applicable*

9. **Target Audience: During the reporting period, this Permittee organization focused its education, outreach, and public involvement messages to the following audience(s):**

- ☑ ***General Public*** *(including homeowners, homeowner's associations, landscapers, and property managers)*
- ☑ ***Business/Industrial/Commercial/Institutions*** *(including home based and mobile businesses)*
- ☑ ***Construction/Development*** *(e.g., Engineers, Contractors, Developers, Landscape Architects, Site Design Professionals)*
- ☑ ***Elected Officials, Land Use Policy and Planning Staff***
- ☐ Other *(describe in Comments section below)*

10. **Topics: During the reporting period, this Permittee organization focused its education, outreach, and public involvement messages on the following topics** *(select all that apply):*

- ☑ General impacts of stormwater flows into surface water, and appropriate actions to prevent adverse impacts;
- ☑ Impacts from impervious surfaces, techniques to avoid adverse impacts;
- ☑ Yard care techniques protective of water quality, such as composting;
- ☑ Proper use, application & storage of pesticides, herbicides, and fertilizers;

Clear Page 6

- [x] Litter & trash control and recycling programs;
- [x] BMPs for power washing, carpet cleaning, auto repair &maintenance;
- [x] Low Impact Development/green infrastructure techniques, including site design, pervious paving, retention of mature trees/vegetation, landscaping and vegetative buffers;
- [x] Maintenance of landscape features providing water quality benefits;
- [ ] Stormwater treatment and volume control practices;
- [x] Technical standards for stormwater site plans; including appropriate selection, installation, and use of required construction site control measures
- [x] Source control BMPs and environmental stewardship;
- [x] Impacts of illicit discharges and how to report them;
- [x] Actions and opportunities for pet waste control/disposal,
- [x] Water wise landscaping, water conservation, water efficiency
- [x] BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, vehicle wash soaps and other hazardous materials;

11. **During the reporting period, this Permittee organization began and/or continued distribution of the selected messages/activities to the intended target audience.**

(●) *Yes*

*Please summarize the message/activity conducted during the reporting period in the Comments section below.*

( ) *No*

*Note: Permit Part 3.1.3 requires Permittees to conduct at least eight (8) educational messages or activities no later than* ***September 30, 2026.***

( ) *Not Applicable*

12. **During this reporting period, this Permittee organization assessed, or participated in efforts to assess, the understanding and adoption of intended behaviors by the target audience.**

(●) *Yes; In the Comments section below, please summarize efforts to assess the selected education, outreach and public involvement activities conducted during the reporting period. If information is available, describe how this information is used to improve the education/outreach efforts.*

( ) *No*

( ) *Not Applicable*

Clear Page 7

13. **During this reporting period, this Permittee organization offered (or worked with others to offer) training/education regarding construction site runoff control measures to site operators working in the Permittee's jurisdiction.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.1.7.1 requires Permittees to offer outreach/training on construction site control measures at least once per year during the permit term, no later than* ***September 30, 2026.***

- ( ) *Not Applicable*

14. **During this reporting period, this Permittee organization offered (or worked with others to offer) training/education regarding permanent stormwater controls to audiences working in the Permittee's jurisdiction.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.1.7.2 requires Permittees to offer outreach/training on permanent stormwater controls at least once per year during the permit term, no later than* ***September 30, 2026.***

- ( ) *Not Applicable*

15. **This Permittee organization maintains and promotes a publicly-accessible website that provides current SWMP-related information cited in Permit Part 3.1.8. This website was recently updated prior to submitting this Report.**

- (●) *Yes*

  *URL for the Permittee's webpage:*

  *http://* https://www.partnersforcleanwater.org/ https://adacountydrainagedistrict3.org/

- ( ) *No*
- ( ) *Not Applicable*

***Comments on Public Education, Outreach, and Involvement Program:***
*Use this Comments field to explain or discuss unique implementation schedules, summarize nature of the education, outreach, and public involvement activities conducted during the reporting period*

Questions 8-15: Pursuant to the Amended and Restated Intergovernmental Agreement for Roles and Responsibilities Under the National Pollutant Discharge Elimination System Permit (NPDES Permit #IDS-027561), entered into by the Permittees on December 7, 2022, Appendix A to Ada County Drainage District No. 3 SWMP (Attachment K), Boise City is the primary Permittee responsible for education and outreach as discussed by questions 8-15 above. Please refer to Boise City's annual report and associated attachments for specifics of the Permittees' joint activities. The information regarding the Boise City public education and outreach program, target audiences, activities, stormwater pollution prevention messaging, assessment and tracking, etc. can be found in Attachment B - The 2024 Public Education, Outreach, and Involvement Program.

Clear Page 8

***Illicit Discharge Detection and Elimination Program (Permit Part 3.2)***

16. **To the extent allowable pursuant to authority granted under Idaho law, this Permittee organization conducts and enforces a program to detect and eliminate illicit discharges into the MS4.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.2 requires Permittees to revise and update their existing programs as necessary to comply with Permit Parts 3.2.2 through 3.2.9 no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

17. **This Permittee organization maintains a current MS4 Map and Outfall Inventory as described in Permit Part 3.2.2.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.2 requires Permittees to update their Map(s) and Inventory no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

18. **To the extent allowable pursuant to authority granted under Idaho law, this Permittee organization prohibits non-storm water discharges into the MS4 (*except those identified in Permit Part 2.4*) through an ordinance or other regulatory mechanism.**

- (●) *Yes – if yes, please provide citation/web address to the ordinance/regulatory mechanism:*

  Boise City Code 10-6-2 and http://www.achdidaho.org/Documents/ACHDpolicyManual/7000to9000/Section8000_DrainageStormwaterManagement.pdf (Section 8006 - Legal Authority for Stormwater Management)

- ( ) *No*

  *Note: Permit Part 3.2 requires Permittees to revise and update their existing programs as necessary no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

19. **This Permittee organization maintains a dedicated telephone number, email address, and/or other means for the public to report illicit discharges,**

- (●) *Yes – if yes, please provide phone number/web address:*

  Stormwater Pollution Prevention Hotline: (208) 395-8888; DD3 Hotline: (208) 602-1713

- ( ) *No*

  *Note: Permit Part 3.2 requires Permittees to revise and update their existing programs as necessary no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

Clear Page 9

20. **This Permittee organization responds and investigates illicit discharge complaints or reports within two working days.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.2 requires Permittees to revise and update their existing programs as necessary no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

21. **Number of Public Complaints/Reports Received During this Reporting Period:**

~~6~~

22. **Number of Illicit Discharge Complaints/Reports Investigated through field visits, sampling or other follow-up action** 0

23. **Number of Illicit Discharge Complaints/Reports Resolved** 0

24. **This Permittee organization conducts a dry weather analytical and field screening monitoring program to identify non-stormwater flows from MS4 outfalls.**

(●) *Yes* ( ) *No* ( ) *Not Applicable*

25. **During the reporting period, this Permittee organization used its written protocols to prioritize and identify MS4 outfalls for dry weather discharge investigation.**

(●) *Yes* ( ) *No* ( ) *Not Applicable*

26. **Total Number of MS4 Outfalls in the Permittee's jurisdiction of the Permit Area:**

4

27. **During the reporting period, this Permittee organization completed visual dry weather screening on at least 20% of MS4 outfalls.**

- (●) *Yes*
- ( ) *No* – Total # outfalls < 7, so only one outfall screened this reporting period
- ( ) *Not Applicable*

28. **Of the 20% of MS4 outfalls screened during the reporting period:**

**How many outfalls were discharging during dry weather?** 1

**How many of these identified dry weather discharges were sampled or otherwise investigated to determine the discharge source?** 0

**How many of the identified dry weather discharges resulted in the Permittee action to address and eliminate the discharge source?** 0

Clear Page 10

29. **During this reporting period, how many of the Permittee's MS4 outfalls have been identified as having dry weather flows caused by irrigation return flow or ground water seepage?**
**Number of outfalls identified this reporting period** 0
**Total number of MS4 outfalls identified to date, as having dry weather flows from irrigation or groundwater seepage** 0

*Note: Permit Part 3.2.6 requires Permittees to provide a complete list of MS4 outfalls locations identified as having dry weather flows caused by irrigation return flow or ground water seepage as part of the Permit Renewal Application no later than* ***April 3, 2026.***

30. **This Permittee organization maintains written spill response procedures and coordinates appropriate spill prevention, containment and response activities with other organizations in the Permit Area to ensure maximum water quality protection at all times.**
(●) *Yes* ( ) *No* ( ) *Not Applicable*

31. **This Permittee organization coordinates with appropriate local entities to educate employees and the public of the proper management and disposal or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes.**
(●) *Yes* ( ) *No* ( ) *Not Applicable*

32. **This Permittee organization's staff responsible for investigating, identifying and eliminating illicit discharges, spills, and illicit connections into the MS4 are trained to conduct such activities**
(●) *Yes* ( ) *No* ( ) *Not Applicable*

***Comments on Illicit Discharge Detection and Elimination Program:***
*Use this Comments field to explain any unique implementation schedules, highlight investigation results or follow-up actions, discuss subsequent enforcement actions, etc. that were conducted during the relevant reporting period.*

Questions 16 and 18: The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All applicable enforcement ordinances are governed by Boise City or ACHD and both entities have enforcement jurisdiction over activities occurring within the Ada County Drainage District No. 3 boundary. Boise City and ACHD are the primary Permittees responsible for illicit discharge detection and elimination program implementation as discussed by questions 16 and 18 above.

Question 17: Please see Attachment D - MS4 Map and Outfall Inventory.

Question 21-23: Please see Attachment M - DD3 Stormwater Pollution Hotline Report. All known public complaints and reports were followed up on and resolved by Ada County Drainage District No. 3's manager, Dean Callen.

Clear Page 11

***Construction Site Runoff Control Program (Permit Part 3.3)***

33. **This Permittee organization uses an ordinance or other regulatory mechanism to require erosion, sediment, and waste material management controls at construction project site activity that results in land disturbance of one (1) or more acres and discharges to the MS4.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

34. **This Permittee organization requires construction site operators to submit construction site plans for Permittee review.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

35. **This Permittee organization inspects construction sites to ensure compliance with applicable requirements for erosion, sediment and waste material management controls.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

36. **This Permittee organization inspects construction sites using an inspection prioritization system.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

**37. This Permittee organization implements a written escalating enforcement response policy or plan (ERP) for construction site runoff control.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

**38. This Permittee organization ensures that all persons responsible for preconstruction site plan review, site inspections, and enforcement of construction site runoff control requirements are appropriately trained to conduct such activities – specifically, this organization provides orientation and training for new staff working on construction runoff control issues within the first six (6) months of employment.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.3 requires Permittees to update their construction site runoff control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

***Comments on Construction Site Runoff Control:***
*Use this Comments field to explain unique implementation schedules, summarize the number of site inspections, follow-up actions, and/or any subsequent enforcement actions, etc that were conducted during the relevant reporting period.*

Questions 33-38: The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All applicable enforcement ordinances are governed by Boise City or ACHD, and both entities have enforcement jurisdiction over activities occurring within the Ada County Drainage District No. 3 boundary and are responsible for construction site runoff control program implementation as discussed by Questions 33-38 above. Please refer to Boise City and ACHD annual reports for specifics of Boise City and ACHD's enforcement of applicable ordinances and regulations. The Construction Site Discharge Control (CSDC) Enforcement Response Policy (ERP) was revised in May 2022 and approved by the ACHD Commission in September 2022 for incorporation into the CSDC Program and ACHD Policy. The CSDC ERP is available in the Phase I SWMP, Appendix H.
ACHD implements the Construction Site Runoff Control Program county-wide. In reporting year 2024-2025, qualified ACHD staff reviewed 149 Site Specific Erosion and Sediment Control (ESC) Plans in the Phase I permit area. Forty construction site ESC inspections were conducted by ACHD staff or ACHD contractors in the Phase I permit area during the 2024-2025 reporting year. Of the 40 inspections conducted, 19 did not require additional follow-up actions, 21 required corrective actions by the construction site responsible person, and one Notice of Violation (NOV) was issued as a result of these inspections. Attachment H to ACHD's annual report provides a summary of ESC plan reviews and inspections by month and a map illustrating the locations of these activities.

Please see Attachment F - Enforcement Response Policy.

Please see Attachment F.1 - Boise City Construction Site Runoff Control

Please see Attachment Attachment G - Erosion and Sediment Control Plan Reviews and Site Inspection Map.

Clear Page 13

***Post Construction Stormwater Management in New Development & Redevelopment (Permit Part 3.4)***

39. **Through ordinance or other regulatory mechanism, this Permittee organization requires the installation and long-term maintenance of permanent stormwater controls at new development and redevelopment project sites that result from land disturbance of 5,000 square feet or more, excluding individual one- or two-family dwelling development or redevelopment and the infill or redevelopment of public pedestrian infrastructure projects. Required controls are sufficient to retain onsite the runoff volume produced from the first 0.6 inches of rainfall from a 24-hour event preceded by 48 hours of no measurable precipitation, and/or require runoff treatment providing equal or greater level of water quality benefit as this onsite retention standard.**

(●) *Yes*

*Please cite to the ordinance containing the permanent stormwater control requirements:*

See Boise City Code 10-6-3 and https://www.achdidaho.org/Documents/ACHDpolicyManual/7000to9000/Section8000_DrainageStormwaterManagement.pdf (Section 8007.2)

( ) *No*

*Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

( ) *Not Applicable*

40. **This Permittee organization requires permanent storm water controls through written specifications.**

(●) *Yes*

*Please cite to the document containing the permanent stormwater control requirements:*

See Boise City Code 10-6-3 and https://www.achdidaho.org/Documents/ACHDpolicyManual/7000to9000/Section8000_DrainageStormwaterManagement.pdf (Section 8007.2), and Attachment G and H

( ) *No*

*Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

( ) *Not Applicable*

41. **This Permittee organization requires preconstruction site plan review and approval for permanent storm water controls at new development and redevelopment sites.**

(●) *Yes*

( ) *No*

*Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

( ) *Not Applicable*

Clear Page 14

### 41.b *This Permittee organization cooperates in the implementation of the Green Infrastructure Strategy to employ innovative approaches to control stormwater quality and quantity in the Lower Boise River watershed.*

*Use this field below to describe any relevant Permittee actions during the reporting period, as applicable. .*

Questions 39-41: The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All applicable enforcement ordinances are governed by the Boise City or ACHD, and both entities have enforcement jurisdiction over activities occurring within the Ada County Drainage District No. 3 boundary and are responsible for post construction stormwater management in new development and redevelopment as discussed by questions 39-41 above. Please refer to Boise City and ACHD annual reports for specifics of the Boise City and ACHD's enforcement of applicable ordinances and regulations.

In addition, Ada County Drainage District No. 3 utilizes drainage agreements with developers who wish to conduct development projects in or around Ada County Drainage District No. 3's drains or outfalls. These drainage agreements require additional post construction site protocols to help manage stormwater post construction.

Question 41b: The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All new, rebuilt, and retrofitted ACHD stormwater basins are vegetated to mitigate stormwater pollutants and GSI opportunities are explored for all new roadway projects. In the Phase I Permit area, ACHD owns and actively manages stormwater tree cells, vegetated basins and bioretention swales. The inventory for Phase I ACHD-Owned Vegetated Basins and Bioretention Swales for 2024-2025 is available in Attachment I, Table 1 to the ACHD annual report. Additionally, 22 GIS projects were designed or constructed in 2024-2025 that are not yet added to ACHD's actively maintained inventory (Attachment I, Table 2). These projects are either owned and operated by ACHD and/or primary maintenance responsibilities belong to ACHD. ACHD works cooperatively through an agreement with the City of Boise to maintain stormwater tree cells located in the Greater Downtown Boise Area. ACHD maintains and cleans the stormwater tree cell inlets and distribution pipe, and the City of Boise maintains the soil and trees. ACHD continues development and implementation of the GSI Program through piloting and refining strategies and processes to improve the success of newly constructed GSI facilities and basin retrofits. GSI Program activities and project descriptions are provided in Attachment I of ACHD's annual report in the following tables:

- Table 1 – Phase I ACHD-Owned Vegetated Basins and Bioretention Swales 2016 - 2025
- Table 2 - GSI Projects Designed or Constructed 2020 -2025
- Table 3 – Phase I ACHD GSI Program Updates 2024-2025

More information on activities ACHD conducts to address requirements for post-construction stormwater management for new development and redevelopment is described in the ACHD Phase I SWMP, Section 5.4.2.2. (See attachments for GSI tables 1-3)

42. **This Permittee organization has identified high priority locations in the jurisdiction where the Permittee regularly inspects the installation, and long-term operation, of permanent stormwater controls.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

43. **This Permittee organization has an enforcement strategy to ensure and maintain the functional integrity of permanent stormwater controls within this jurisdiction.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

44. **This Permittee organization uses a database inventory to track and manage the operational condition of permanent stormwater controls within this jurisdiction.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***

- ( ) *Not Applicable*

45. **This Permittee organization requires enforceable and transferable O&M Agreements, where parties other than this Permittee organization are responsible for operation and maintenance of permanent storm water controls?**

- (●) *Yes*
- ( ) *No - Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***
- ( ) *Not Applicable*

46. **This Permittee organization ensures that all persons responsible for reviewing site plans for permanent stormwater controls and/or for inspecting the installation and operation of permanent controls are trained to conduct such activities**

- (●) *Yes*
- ( ) *No - Note: Permit Part 3.4 requires Permittees to update their permanent stormwater control requirements no later than* ***April 3, 2026.***
- ( ) *Not Applicable*

Clear Page 16

***Comments on Post Construction Stormwater Management in New Development and Redevelopment***

*Use this Comments field as necessary to explain any unique implementation schedules, summarize inspections, actions, etc. that were conducted during the relevant reporting period.*

Questions 42-46: The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All applicable enforcement ordinances are governed by Boise City or ACHD, and both entities have enforcement jurisdiction over activities occurring within the Ada County Drainage District No. 3 boundary and are responsible for permanent storm water controls in construction as discussed by questions 42-46 above. Please refer to Boise City and ACHD's annual reports for specifics of Boise City and ACHD's enforcement of applicable ordinances and regulations.

In addition, Ada County Drainage District No. 3 utilizes drainage agreements with developers who wish to conduct development projects in or around Ada County Drainage District No. 3's drains or outfalls. These drainage agreements require additional permanent storm water controls to help manage storm water post construction.

Clear Page 17

***Stormwater Infrastructure and Street Management (Permit Part 3.5)***

**47. This Permittee organization inspects all MS4 catch basins and inlets in the jurisdiction at least once every two years and takes appropriate maintenance or cleaning action based on those inspections.**

- (●) *Yes*
- ( ) *No – Permittee uses an alternate inspection & maintenance schedule as outlined in the SWMP Document.*
- ( ) *No*

  *Note: Permit Part 3.5 requires Permittees to update their* pollution prevention and good housekeeping *as needed to properly operate and maintain their MS4s no later than* ***April 3, 2026.***
- ( ) *Not Applicable*

**Total Number of catch basins and inlets inspected this reporting period** 6.0

**48. This Permittee organization operates and maintains Streets, Roads, Highways and/or Parking Lots in its jurisdiction in a manner that protects water quality and reduces the discharge of pollutants through the MS4.**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026***
- ( ) *Not Applicable*

**49. This Permittee organization operates all street/road maintenance material storage locations in a manner that prevents pollutants in stormwater runoff from discharging to the MS4 or into any receiving waterbody. A description of each Material Storage Location is included in the SWMP Document, as required by Permit Part 3.5.4**

- (●) *Yes*
- ( ) *No*

  *Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than .*
- ( ) *Not Applicable*

**50. This Permittee organization sweeps all streets, roads, highways, and parking lots according to a sweeping management plan and the sweeping schedule outlined in Permit Part 3.5.5.**

◯ *Yes*

◯ *No*

*Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026***

◉ *Not Applicable*

**51. This Permittee organization has reviewed its operation and maintenance activities for the types of activities listed below and confirms that all such activities are conducted in a manner that protects water quality and reduces the discharge of pollutants through the MS4**. Municipal Activities to be addressed include: *grounds/park and open space maintenance operations; fleet maintenance and vehicle washing operations; building maintenance; snow disposal site operation and maintenance; solid waste transfer activities; municipal golf course maintenance; materials storage; hazardous materials storage; used oil recycling; and spill control and prevention measures for municipal refueling facilities.*

◯ *Yes*

◯ *No*

*Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026***

◉ *Not Applicable*

***52.*** **This Permittee organization ensures appropriate practices to reduce the discharge of pollutants to the MS4 associated with the application, storage and disposal of pesticides, herbicides and fertilizers. All employees or contractors applying pesticides, etc. are instructed to follow all label requirements, including those regarding application methods, rates, number of applications allowed, and disposal of the pesticide/herbicide/fertilizer and rinsate.**

◉ *Yes*

◯ *No*

*Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026.***

◯ *Not Applicable*

**53. This Permittee organization uses site specific Storm Water Pollution Prevention Plans for all Permittee-owned material storage facilities, heavy equipment storage areas, and maintenance yards located in the Permit Area.**

◯ *Yes*

◯ *No*

*Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026.***

◉ *Not Applicable*

**54. This Permittee organization ensures that all persons responsible for municipal operations and maintenance activities are trained to conduct such activities**

◯ *Yes*

◯ *No*

*Note: Permit Part 3.5 requires Permittees to update their requirements pollution prevention/good housekeeping for MS4 Operations no later than* ***April 3, 2026.***

◉ *Not Applicable*

***Comments on Stormwater Infrastructure and Street Management***

*Use this Comments field as necessary to explain any unique implementation schedules, summarize inspections, actions, etc. that were conducted during the relevant reporting period*

Question 47 - Ada County Drainage District Manager, Dean Callen, inspects all Ada County Drainage District No. 3 facilities at least once every two years. Please see Attachment N - DD3 Manager, Dean Callen, Inspection Logs.

Questions 48-50 - ACHD is responsible for the maintenance and operations of all roads and right-of-ways within Ada County Drainage District No. 3's district boundary.

Question 51 - This question does not apply to Ada County Drainage District No. 3 as it does not maintain any of the above mentioned facilities or does not participate in such activities listed.

Question 52 - Ada County Drainage District No. 3's Manager, Dean Callen, is instructed to follow all label requirements, including those regarding application methods, rates, number of applications allowed, and disposal of the pesticide/herbicide/fertilizer.

Question 53 - Ada County Drainage District No. 3 does not maintain any material storage facilities, heavy equipment storage areas, or maintenance yards.

Question 54 - This question does not apply to Ada County Drainage District No. 3 as it is not a municipal operation.

Clear Page 20

## Industrial and Commercial Stormwater Discharge Management (Permit Part 3.6)

**55.** ***This Permittee organization maintains an inventory of industrial & commercial facilities within the Permit Area, and inspects such facilities on a prioritized basis as required by Permit Part 3.6.***

***Use this comment box to summarize Permittee activities related to Permit Part 3.6.***

The Ada County Drainage District No. 3's district boundary is within Boise City and ACHD's jurisdiction. All applicable enforcement ordinances are governed by Boise City or ACHD, and both entities have enforcement jurisdiction over activities occurring within the Ada County Drainage District No. 3 boundary and are responsible for industrial and commercial facilities compliance with stormwater discharge management. Please refer to Boise City and ACHD annual report for specifics of the Boise City and ACHD inventory of such enforcement efforts. ACHD's jurisdiction is limited to public right of way and does not include private property. To implement the ccommercial and industrial monitoring program, ACHD contracts with the City of Boise and City of Garden City to maintain an inventory of industrial and commercial facilities described in Permit Part 3.6.2. A narrative description of the inventories and additional information on ACHD's Industrial and Commercial Stormwater Discharge Management Program is provided in ACHD's Phase I SWMP, Section 5.6. An inspection summary table and facility inspection reports for reporting year 2023-2024 are in ACHD's Phase I SWMP, Appendix L.

Attachments
- GSI Tables 1-3
- ESC Reviews, Inspections Tables
- ESC Plan Review and Site Inspections Map
- Updated Spill Response Plan (Stand Alone Document on the FTP Site)
- Industrial and Commercial Facility Inspection Reports (Stand Alone Document on the FTP Site)

Clear Page 21

## Section V. Response To Excursions Above Idaho Water Quality Standards

**56. During this or any prior reporting period, did the Permittee submit written notification to EPA and IDEQ regarding MS4 discharge that are causing or contributing to an excursion above the WQS as directed by Permit Part 5.1?**

- ◯ *Yes – if yes, proceed to Q.56*
- ◉ *No*
- ◯ *Not Applicable*

**57. During this or any prior reporting period, did the Permittee submit an Adaptive Management Report to EPA and IDEQ, as directed by Permit Part 5.2?**

- ◯ *Yes – if yes, proceed to Q.57*
- ◉ *No*
- ◯ *Not Applicable*

**58. Provide a summary of the Permittee's efforts to date that address the MS4 discharges contributing to the original water quality excursion, including the results of any monitoring, assessment, or evaluation efforts conducted during the reporting period.**

Question 56 and 57. NA

Question 58 - Pursuant to the Amended and Restated Intergovernmental Agreement for Roles and Responsibilities Under the National Pollutant Discharge Elimination System Permit (NPDES Permit #IDS-027561), entered into by the Permittees on December 7, 2022, Appendix A to Ada County Drainage District No. 3 SWMP (Attachment K), ACHD is the primary Permittee responsible for monitoring and water quality assessments. Please refer to ACHD's annual report and associated attachments for specifics of the Permittees' joint activities. ACHD, on behalf of the Permittees, continued to conduct wet weather stormwater monitoring and subwatershed monitoring as required under the Stormwater Monitoring and Evaluation Program requirements in Permit Part 6.2. Annual monitoring summaries for activities conducted in reporting year 2024-2025 are provided in the following attachments to this annual report:

Attachment L - Temperature Monitoring Approach
Attachment J - NPDES Phase I Stormwater Outfall Monitoring Plan
Attachment C- Stormwater Outfall Monitoring Summary Water Year 2025
Attachment P - Americana Subwatershed Monitoring Summary Report Water Year 2025
Attachment Q - Temperature Monitoring Summary Water Year 2025

Clear Page 22

**59. List any attachments submitted as part of this Annual Report:**

Note: Part 6.2.1 requires an updated *Stormwater Outfall Monitoring Plan* to be submitted as part of the Year 1 Annual Report, due January 30, 2023.

Attachment A - SWMP Implementation Costs
Attachment B - The 2025 Public Education, Outreach, and Involvement Program
Attachment C - Stormwater Outfall Monitoring Summary WY2025
Attachment D - MS4 Map and Outfall Inventory
Attachment E - 2025 DD3 Dry Weather Testing
Attachment F - Enforcement Response Policy
Attachment F.1 - Boise City Construction Site Runoff Control
Attachment G - Erosion and Sediment Control Plan Reviews and Site Inspection Map
Attachment H - ACHD Vegetated Basins, Bioretention Swales, and GIS Program Activities
Attachment I - Industrial and Commercial Discharge Facility Inspection Reports
Attachment J - NPDES Phase I Stormwater Outfall Monitoring Plan
Attachment K - Ada County Drainage District No. 3 Stormwater Management Plan (NPDES Permit #IDS-027561)
Attachment L - NPDES Phase 1 Temperature Monitoring Approach
Attachment M - DD3 Stormwater Pollution Hotline Report
Attachment N - DD3 Manager, Dean Callen, Inspection Logs
Attachment O - Spill Response and Household Hazardous Wastes Controls
Attachment P - Americana Subwatershed Monitoring Summary WY 2025
Attachment Q - Temperature Monitoring Summary WY 2025

# 2025 Attachment A - SWMP Implementation Costs

# DRAINAGE DISTRICT NO. 3
## Transaction Detail by Account
### October 2024 through September 2025

| Type | Date | Num | Name | Memo | Class | Split | Debit | Credit | Balance |
|---|---|---|---|---|---|---|---|---|---|
| **610 · Wages** | | | | | | | | | |
| Paycheck | 10/10/2024 | DD1017 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 753.75 | | 753.75 |
| Paycheck | 11/08/2024 | DD1018 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 877.50 | | 1,631.25 |
| Paycheck | 12/10/2024 | DD1019 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 1,100.00 | | 2,731.25 |
| Paycheck | 01/10/2025 | DD1020 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 1,100.00 | | 3,831.25 |
| Paycheck | 02/10/2025 | DD1021 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 562.50 | | 4,393.75 |
| Paycheck | 03/10/2025 | DD1022 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 832.50 | | 5,226.25 |
| Paycheck | 04/10/2025 | DD1023 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 990.00 | | 6,216.25 |
| Paycheck | 05/09/2025 | DD1024 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 720.00 | | 6,936.25 |
| Paycheck | 06/10/2025 | DD1025 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 945.00 | | 7,881.25 |
| Paycheck | 07/10/2025 | DD1026 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 855.00 | | 8,736.25 |
| Paycheck | 08/08/2025 | DD1027 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 1,100.00 | | 9,836.25 |
| Paycheck | 09/10/2025 | DD1028 | Dean E Callen | Direct Deposit | | 106 · ICCU - C... | 1,102.50 | | 10,938.75 |
| Total 610 · Wages | | | | | | | 10,938.75 | 0.00 | 10,938.75 |
| **615 · Engineering** | | | | | | | | | |
| **615-01 · General** | | | | | | | | | |
| Check | 10/11/2024 | BPc | QRS Consulting... | Inv #2530.1 | GENERAL | 106 · ICCU - C... | 360.00 | | 360.00 |
| Check | 11/04/2024 | BPc | QRS Consulting... | Inv #2582.01 | GENERAL | 106 · ICCU - C... | 288.00 | | 648.00 |
| Check | 12/16/2024 | BPc | QRS Consulting... | Inv #2658.01 | GENERAL | 106 · ICCU - C... | 1,008.00 | | 1,656.00 |
| Check | 03/12/2025 | BPc | QRS Consulting... | Inv. #2821.01 | GENERAL | 106 · ICCU - C... | 792.00 | | 2,448.00 |
| Check | 04/01/2025 | BPc | QRS Consulting... | Inv. #2878.1 | GENERAL | 106 · ICCU - C... | 360.00 | | 2,808.00 |
| Check | 05/12/2025 | BPc | QRS Consulting... | -MULTIPLE- | GENERAL | 106 · ICCU - C... | 2,594.35 | | 5,402.35 |
| Check | 07/10/2025 | BPc | QRS Consulting... | -MULTIPLE- | GENERAL | 106 · ICCU - C... | 1,474.50 | | 6,876.85 |
| Check | 08/01/2025 | 3 | QRS Consulting... | -MULTIPLE- | GENERAL | 106 · ICCU - C... | 9,355.53 | | 16,232.38 |
| Check | 09/08/2025 | BPc | QRS Consulting... | -MULTIPLE- | GENERAL | 106 · ICCU - C... | 3,774.95 | | 20,007.33 |
| Total 615-01 · General | | | | | | | 20,007.33 | 0.00 | 20,007.33 |
| Total 615 · Engineering | | | | | | | 20,007.33 | 0.00 | 20,007.33 |
| **640 · Legal** | | | | | | | | | |
| **640-02 · NPDES** | | | | | | | | | |
| Check | 11/27/2024 | BPc | Elam & Burke | Inv. #210948 | NPDES | 106 · ICCU - C... | 875.00 | | 875.00 |
| Check | 02/18/2025 | BPc | Elam & Burke | Inv. #212580 | NPDES | 106 · ICCU - C... | 3,680.00 | | 4,555.00 |
| Check | 04/01/2025 | BPc | Elam & Burke | Inv. #213122 | NPDES | 106 · ICCU - C... | 100.00 | | 4,655.00 |
| Check | 05/22/2025 | BPc | Elam & Burke | Inv.#214232 | NPDES | 106 · ICCU - C... | 875.00 | | 5,530.00 |
| Check | 07/23/2025 | BPc | Elam & Burke | Inv. #215290 | NPDES | 106 · ICCU - C... | 50.00 | | 5,580.00 |
| General Journal | 02/28/2025 | TJ 2036 | | To move fee t... | NPDES | 665 · Miscellan... | 700.00 | | 6,280.00 |
| Total 640-02 · NPDES | | | | | | | 6,280.00 | 0.00 | 6,280.00 |
| Total 640 · Legal | | | | | | | 6,280.00 | 0.00 | 6,280.00 |
| **658 · Monitoring fees** | | | | | | | | | |
| Check | 10/17/2024 | BPc | Boise City Publi... | #IO402 Partn... | | 106 · ICCU - C... | 963.11 | | 963.11 |
| Check | 10/16/2024 | BPc | ACHD | 4th Qtr (Jul. - ... | | 106 · ICCU - C... | 2,790.29 | | 3,753.40 |
| Check | 02/13/2025 | BPc | Boise City Publi... | #IO414 Partn... | | 106 · ICCU - C... | 105.87 | | 3,859.27 |
| Check | 04/18/2025 | BPc | ACHD | 1Qtr (Oct. - D... | | 106 · ICCU - C... | 2,868.01 | | 6,727.28 |
| Check | 05/22/2025 | BPe | ACHD | 2Qtr (Jan. - M... | | 106 · ICCU - C... | 2,577.52 | | 9,304.80 |
| Check | 06/03/2025 | BPc | Boise City Publi... | #IO420 Partn... | | 106 · ICCU - C... | 211.75 | | 9,516.55 |
| Check | 07/30/2025 | BPc | Boise City Publi... | #IO425 Partn... | | 106 · ICCU - C... | 485.62 | | 10,002.17 |
| Check | 08/08/2025 | BPc | ACHD | 3Qtr (Apr. - Ju... | | 106 · ICCU - C... | 2,231.97 | | 12,234.14 |
| Total 658 · Monitoring fees | | | | | | | 12,234.14 | 0.00 | 12,234.14 |
| **TOTAL** | | | | | | | **49,460.22** | **0.00** | **49,460.22** |

# 2025 Attachment B - 2025 Public Education

## 1. Overview

The City of Boise, Ada County Highway District, Garden City, Ada County Drainage District #3, Idaho Transportation Department District #3, and Boise State University formed Partners for Clean Water (Partners) to develop a cooperative approach to educating the public on stormwater and water quality issues and ensure compliance with the Permit. The City of Boise is the lead agency for this control measure of the Permit with support from the other Partners. The overarching goal of the program is to educate the public on stormwater issues to change specific behaviors that contribute to nutrient, bacteria, temperature, and sediment pollution to the MS4 and local receiving waters.

The City's Stormwater Public Education and Outreach Program is guided by a step-by-step process when developing educational opportunities.

1. Define goals and desired outcomes
2. Identify and analyze target audiences
3. Create messaging for selected audiences
4. Distribute message through chosen methods of outreach
5. Assess the results in order to direct future efforts

The Partners conduct multiple outreach activities and messaging campaigns each year, designed to reach the various target audiences identified in the Permit and focus on stormwater issues of significance in the Permit area. The permittees collaborate each year on which topics and relevant messages the program will focus their efforts on. These activities and messages are further developed and built upon based on feedback and public participation.

Target audiences in Permit Year 4 included the general public, businesses, homeowners, neighborhood associations, pet owners, landscapers, property managers, engineers, contractors, developers, plan review staff, and students. Specific details that meet Permit Part 3.1 requirements can be found below.

## 2. Ongoing Efforts (throughout Permit term):

### Annual Media Campaign

The Partners continue to participate in an annual media campaign which utilize messaging opportunities with radio advertisements, public service announcements, and online ads. The media campaign reaches all target audiences with general messages on water quality with a focus on pet waste, fertilizer reduction, and illicit discharge reporting in 2025.

### Manuals and Reference Materials

Manuals, fact sheets and other education and outreach reference materials are available on the Partners for Clean Water website. These materials are targeted, based on content, to all our targeted audiences. Examples of

these documents include 'Stormwater Facility Maintenance Best Management Practices', 'Stormwater Pollution Prevention: Commercial Landscaping', 'Operation and Maintenance of Stormwater Systems', 'Drainage Plan Checklist' and 'Stormwater Management Resource Guide', among others.

### Website

The website (partnersforcleanwater.org) reaches all target audiences within the Treasure Valley with specific messaging based on audience. More information can be found in section 7 below.

### Boise WaterShed Environmental Education Center

In 2025, The Boise WaterShed reopened as the nation's first climate and water science center, after an extensive remodel. The all-ages, hands-on exhibits explore themes of our changing watershed and how the community can take action to help make our community more resilient to the effects of climate change. The facility is designed to promote water stewardship by teaching people of all ages how to protect and conserve our water resources for future generations.

The staff at the Boise WaterShed incorporates stormwater pollution prevention and stormwater management information into the programs, water renewal facility tours, and lessons offered to visitors. Education of personal impacts to water quality via stormwater, wastewater and pollution prevention tips are integrated throughout most exhibits, lessons, tours, and the center's library resources.

The facility also provides an outdoor River Campus which presents a new dimension to water education with exterior exhibits that show the big picture of the Treasure Valley's water resources. Presented to simulate the workings of the Lower Boise Watershed, the interactive, walk-able, park-like setting takes visitors on a journey from Lucky Peak Reservoir and Dam, through Boise's urban streets, and the Water Renewal Facility. From here they watch cleaned water returned to the Boise River and see it flow downstream to the agricultural zone that sustains our food industry. Ultimately, visitors realize that what we do upstream not only affects downstream users, but also ultimately the overall health of the Snake River and beyond.

### Social Media

The City of Boise and other Partners regularly posts messaging on Twitter, Facebook, and Instagram regarding stormwater, water quality, household hazardous waste collection, leaf litter pick up information, etc. to help distribute these messages to the community through a variety of avenues.

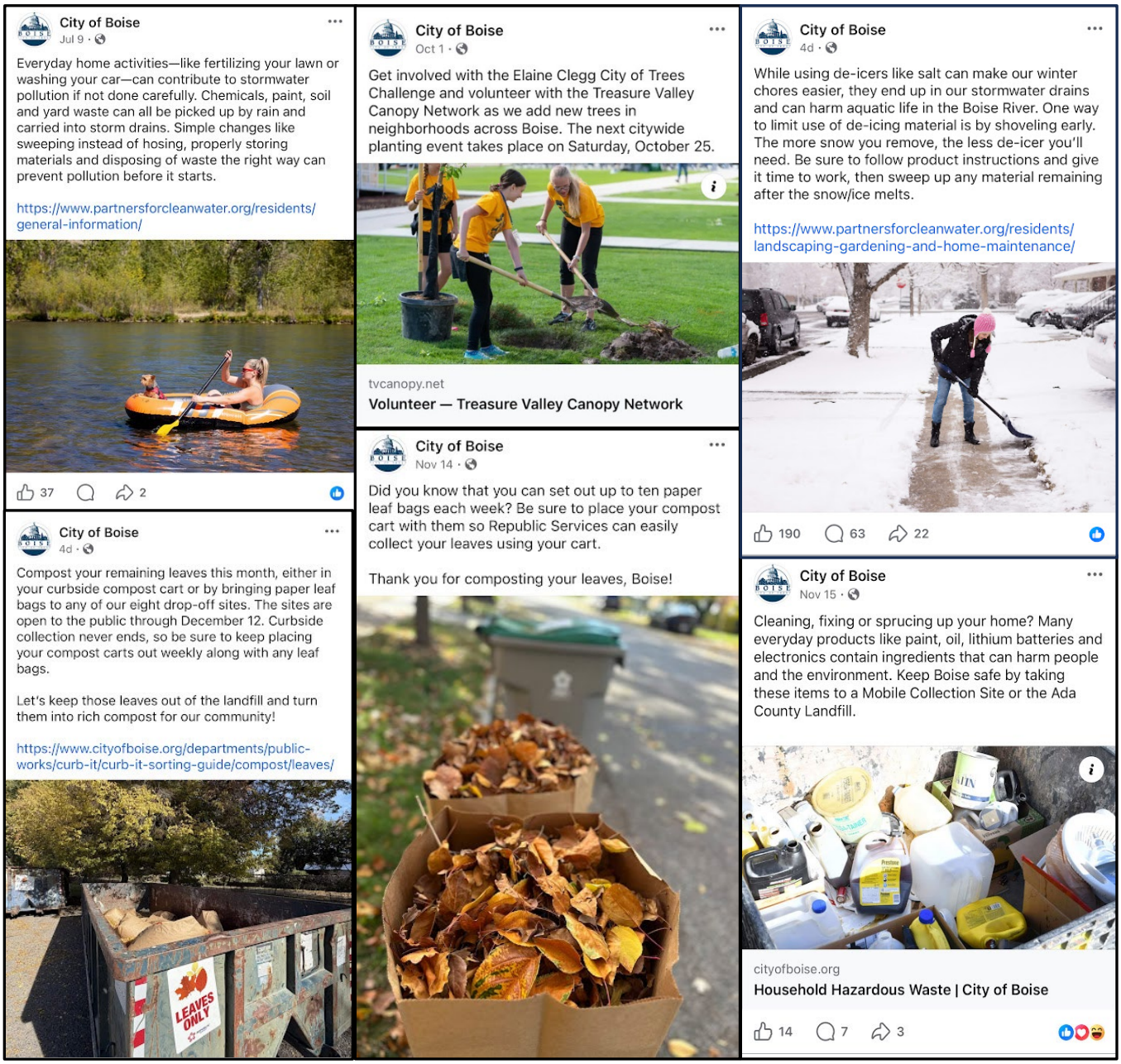



**Figure 1. Examples of 2025 educational social media posts**

## 3. 2025 Outreach Events and Activities:

### Media Campaign

The media campaign for 2025 included radio ads, social media posts, and online ads on websites such as BoiseDev and Google.

Themes highlighted in 2025 include picking up pet waste, illicit discharge reporting, and proper fertilizer use, seen in Figure 2 below.

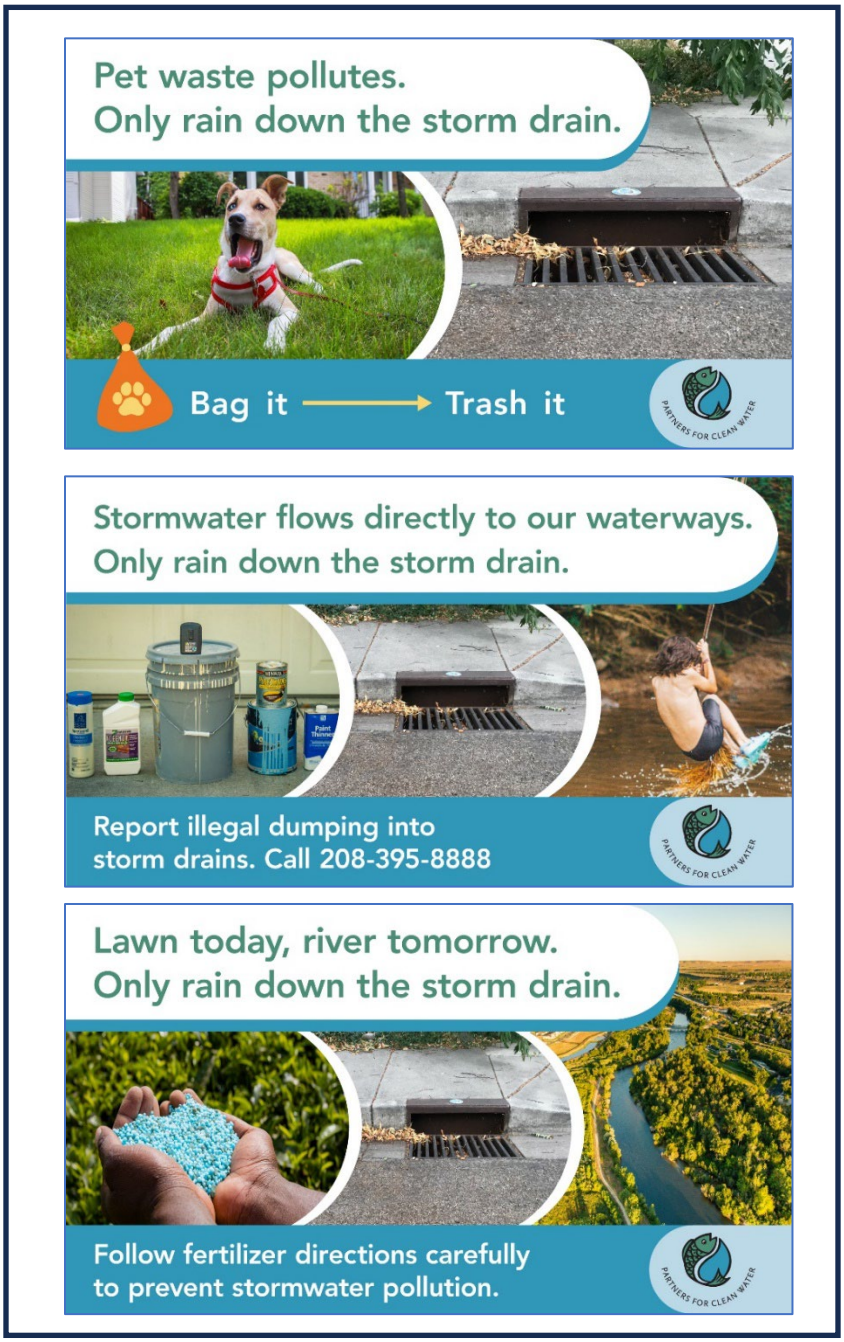



**Figure 2. 2025 Stormwater Educational Graphics**

Radio ads featuring Partners outreach messages were aired on radio stations including KJOT, KRVB, KXLT, KKOO, KIZN, KKGL, LA GRAND, and LA PONDEROSA. Radio ads were broadcast in English and Spanish.

## 2025 Outreach Events

Several events were held during Permit Year 4 for stormwater education and outreach purposes. Each event targeted the general public and focused on general stormwater awareness, illicit discharge reporting, stormwater pollution prevention tips for homes and businesses, and water quality.

### City of Boise Earth Day:




**Figure 3. Partners outreach tent at the 2025 Earth Day celebration**

### Neighborhood Concert Series:



**Figure 4. Partners outreach tent at the Neighborhood Concert Series**

### City of Boise Water Jamboree:

In August, the City of Boise hosted a Water Jamboree at Ann Morrison Park. This event was organized to celebrate 75 years of Water Renewal Services in Boise. This event gathered over 20 local organizations focused on water quality and environmental sustainability, along with food trucks, face painting, and live music. Many families and Boise River floaters were in attendance to participate in the Jamboree.




**Figure 5. Partners outreach tent at the City of Boise Water Jamboree**

## 2025 Treasure Valley Stormwater Conference

In September 2025, Partners for Clean Water co-hosted a regional stormwater conference with the International Erosion Control Association (IECA). The conference successfully brought together over 80 stormwater professionals, regulators, engineers, and contractors for a full day of learning and collaboration focused on one central theme: "Diving Into What Clean Really Means for Idaho Watersheds."

The conference featured technical presentations and case studies covering water-quality trends in the Lower Boise River, revegetation on large construction projects, municipal stormwater volume reduction, advanced treatment BMPs, and

stormwater compliance in challenging environments. Hands-on learning was emphasized through an afternoon workshop on underground modular detention design and construction.

Attendees also connected with exhibitors and sponsors throughout the day, gaining exposure to innovative products and practical solutions for stormwater compliance and water-quality goals. Optional post-conference activities included a field tour of the Warm Springs Creek Aquatic Habitat Improvements and a stormwater trivia networking event at Lucky 13.



**Figure 6. Southwest Idaho Stormwater Conference 2025**

## 4. Assessment

The Partners are consistently assessing the public's understanding of our public outreach messages and the adoption of behaviors that reduce stormwater pollution by our target audiences.

Assessment includes surveys at events that measure general stormwater knowledge to evaluate which topics are being conveyed already, and which topics need additional messaging and awareness. These surveys also resolve which media avenues are most useful to the respondents to guide our outreach in the future.

Data from website usage is also used to assess which programs and messages are reaching the most people and which media avenues generate the most

viewership. The Partners website is updated based on which pages are most viewed and clicked on, in order to make popular topics more accessible (Appendix A).

The results of these continual assessments constantly shape the future of our public outreach and education programming. Focus will be given to programs and efforts that are successful in changing the public's behaviors and practices to reduce stormwater pollution.

### Survey Assessment

Surveys given at events help us gauge what messages should be given more or less emphasis in our outreach program and how to best reach community members with our outreach campaigns. A summary of survey results from the last four years (142 total) and their associated impact to the program are included below.

Surveys can be helpful, but also have sampling bias and response bias, which is why surveys are just one tool to use when assessing outreach efforts.

TABLE 1: ASSESSMENT OF WEBSITE VIEWERSHIP

| Question | Answer Options | Total Response # | Conclusions of Results |
|---|---|---|---|
| Stormwater has a negative effect on water quality in the Boise River | Strongly disagree | 2 | - The general public seems to understand that stormwater negatively affects surface waters<br>- Continue to communicate negative effects of stormwater pollution |
| | Disagree | 8 | |
| | Neutral | 25 | |
| | Agree | 84 | |
| | Strongly Agree | 23 | |
| Stormwater gets treated at Boise's wastewater facilities | True | 68 | - We need to better communicate that stormwater does not get treated at a facility |
| | False | 74 | |
| Circle the activities you currently practice at home to reduce stormwater pollution | Pick up dog poop | 65 | - These results will guide future outreach efforts based on the number of people that report doing or not doing each activity<br>- This question also has bias since not everyone has a dog, irrigates, has a car, has a yard, etc., which can be taken into account when developing outreach materials |
| | Rake leaves | 114 | |
| | Irrigate Efficiently | 97 | |
| | Xeriscaping | 31 | |
| | Take car to car wash | 103 | |
| | Clean oil/grease spills | 51 | |
| | Follow fertilizer directions | 72 | |

| | | | |
|---|---|---|---|
| How familiar are you with Partners for Clean Water? | Not at all | 13 | - Partners will continue promoting our organization and our stormwater pollution hotline, where the community can report illicit discharges and stormwater complaints. |
| | Unfamiliar | 25 | |
| | Somewhat familiar | 78 | |
| | Very Familiar | 26 | |
| Are you interested in learning more about stormwater? | Yes | 130 | - The general public seems very interested in stormwater topics |
| | No | 12 | |
| What is the best way for you to receive information? | Social media | 98 | - The general public receives information depending on various factors such as age, profession, socioeconomic status, etc.<br>- Continue promoting the Partners website and social media outlets<br>- Since these were given at public events, this answer is biased, but still relevant<br>- Continue to create outreach materials such as brochures and items to hand out. |
| | Websites | 107 | |
| | Mailers | 54 | |
| | Brochures | 92 | |
| | Events | 113 | |
| | TV/Radio | 91 | |

## Website Assessment

TABLE 2: ASSESSMENT OF WEBSITE VIEWERSHIP

| Permit Year | Total Viewers | Total Views | Source of Click | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Direct | Google | Boise Dev | City of Boise | Boise Newsletter | Other |
| Year 1 (2022) | 2,790 | 3,376 | 58.20% | 22.90% | -- | -- | -- | 18.90% |
| Year 2 (2023) | 3.360 | 5,113 | 29.30% | 8.20% | 53.60% | 6.00% | -- | 2.90% |
| Year 3 (2024) | 5,046 | 32,775 | 23.50% | 13.70% | 38.60% | 4.00% | 7.50% | 12.70% |
| Year 4 (2025) | 5,161 | 6,792 | 46.00% | 40.80% | 2.70% | 4.00% | 2.00% | 4.50% |

This website data will help direct our media campaign by determining which avenues are most engaging to our viewers. In Year 3, most of our outreach budget was given to our media campaign, as well as the longest amount of time ads appeared on Boise Dev. This is reflected in the numbers of clicks and views that year. We will continue having a strong media presence in the future, as well as using budget to create new ways to promote our website.

## Central Rim Neighborhood Assessment

A more targeted pilot program was started in Permit Year 2 in the Central Rim Neighborhood. The primary goal of this pilot project is to increase stormwater awareness, engage the target audience, and effectively promote proper leaf disposal. By isolating public education and outreach in this neighborhood, we are aiming to achieve higher participation in proper leaf disposal in the Central Rim Neighborhood.

In October 2023, postcards were sent out that outlined the benefits of raking your leaves such as flooding prevention and improved water quality. It also gave instructions for leaf pickup and provided a link to sign up for a free yard sign to encourage neighbors to rake leaves. Signs were displayed in the yards of Central Rim Neighborhood residents.




**Figure 4. Outreach postcard sent to Central Rim Neighborhood residents**

Outreach continued in 2024 and 2025 at the Central Rim's National Night Out. More signs were given to residents and stormwater educational messaging and post cards were provided at a Partners for Clean Water table. Many residents exhibited enthusiasm and interest in the program.

Mailers sent to the Central Rim Neighborhood with post-outreach surveys did not provide enough data to make quantifiable conclusions about the impact of

signage on reported behavior changes. Only four surveys were returned, limiting the potential assessment for this type of outreach. However, we also attained even more quantifiable data from Republic Services of leaf collection amounts from Central Rim neighborhood from the fall seasons of 2021-2024. This data shows a clear increase in leaf litter picked up in this neighborhood over the course of the permit term. It is difficult to conclude that this is the result of Partners outreach, increased Curb It outreach, or another public education factor. This project ultimately concludes that local, neighborhood engagement is successful based on feedback received at neighborhood events and supporting leaf litter data.

| Year | Leaf litter collected in Central Rim Neighborhood (in tons) |
|---|---|
| 2021 | 293 |
| 2022 | 298 |
| 2023 | 307 |
| 2024 | 372 |

## 5. Tracking

A tracking spreadsheet is used by the City of Boise to track and maintain all records of our stormwater education and outreach activities, events, and trainings. This spreadsheet is shared with other permittees during regularly scheduled permittee meetings and is open to feedback and discussion. The tracking spreadsheet is used to compile the annual report.

## 6. Education on SWMP Control Measures

### Construction Site Runoff Control Training

To provide the regional construction community with erosion and sediment control and stormwater pollution prevention education, the City and our Partners have developed the Erosion and Sediment Control (ESC) Responsible Person (RP) training and certification program. The class promotes awareness of the impact of polluted construction site runoff and soil erosion on the MS4 and the Boise River. The class curriculum covers local and state stormwater regulations, principles of ESC Best Management Practices (BMPs), installation and maintenance of common erosion and sediment controls, fugitive dust control, stormwater pollution prevention practices, dewatering, how to conduct the required construction site inspections and updating the ESC plan or SWPPP for the site.

The instructors for the City Responsible Person classes must be qualified and approved by the City. Instructors are required to submit a resume to the City detailing their educational history and experience in erosion control. They must also be able to demonstrate knowledge of the principles of erosion; sediment transport; erosion and sediment control technology, implementation, and maintenance; and local and federal ordinances regulating erosion and sediment control.

Courses are offered through third party entities: Engineering with a Mission LLC, Eagle One LLC, Jones Erosion Control, the College of Western Idaho, and Syman Company throughout the year in various locations in the Treasure Valley as well as online offerings. Boise State University's Construction Management Program also presents the class material to their students, who may receive certification if desired. Additionally, the Nampa school district has a vocational construction site program that utilizes the ESC training presentation. The ESC Inspectors also present the RP course quarterly to train local agency personnel involved in construction projects so that they may implement BMPs on public projects and notify ESC Inspectors if they see runoff pollution and other violations at construction sites. As part of the training participants receive education materials including an illustrated ESC Field Guide to Best Management Practices specific to Idaho.

Construction site operators and contractors must renew their RP certification every 3 years by attending the training and passing an examination. The class is updated regularly to present new ideas and methods in ESC and SWPPP. The Planning and Development permitting system maintains a database of certified RPs. The database is utilized by the City of Boise, ACHD, Garden City, the City of Nampa, and City of Caldwell to verify that construction sites have an individual with ESC training onsite. The RP name and contact information is required to be listed prior to permit issuance, and the RP must have operational control to make corrective actions and knowledge to implement BMPs and work with ESC Inspectors to keep sites in compliance.

In 2025, 511 Responsible Person licenses were issued or renewed..

City staff provide ongoing awareness, education and outreach through the website, annual events, and also can provide site specific training as needed to interested parties and industry groups.

### Permanent Stormwater Controls Training

The September SW Idaho Stormwater Conference fulfilled the requirement to conduct an annual public training focused on permanent stormwater

controls. While the conference covered a lot of other topics, we ensured that O&M of permanent stormwater controls was included in the agenda.




**Figure 5. Conference promotional image**

## 7. Publicly Accessible Website

The City of Boise, on behalf of the Partners for Clean Water, maintains a website that educates the public on stormwater issues for multiple audiences. The website is a key source for stormwater information in Boise and the Treasure Valley.

The website contains relevant contacts for each permittee, as well as each permittee's annual reports, SWMPs, and other relevant compliance and regulation materials. The Intergovernmental Agreement (IGA) that outlines permittee responsibilities is posted, as well as the IPDES permit and the MS4 map. Regularly scheduled permittee meeting agendas and meeting notes are also posted.

The website has topics for varying target audiences, such as homeowners, pet owners, engineers, surveyors, developers, mobile businesses, landscapers, and property maintenance companies. Manuals, checklists, fact sheets and guidance documents are organized into the target audience's respective pages. Individual permittee sites are also linked for more information. Information regarding training, events, and other topics pertinent to educating the community on how to reduce stormwater pollution is easily accessible.

The website continues to be an important way to educate our target audiences and provide a central location for public education and permit compliance information. The Partners continuously develop new outreach materials to post on the website and hand out at events. QR codes that link to the Partners website are often printed on outreach materials.

# Appendix A

## Website data

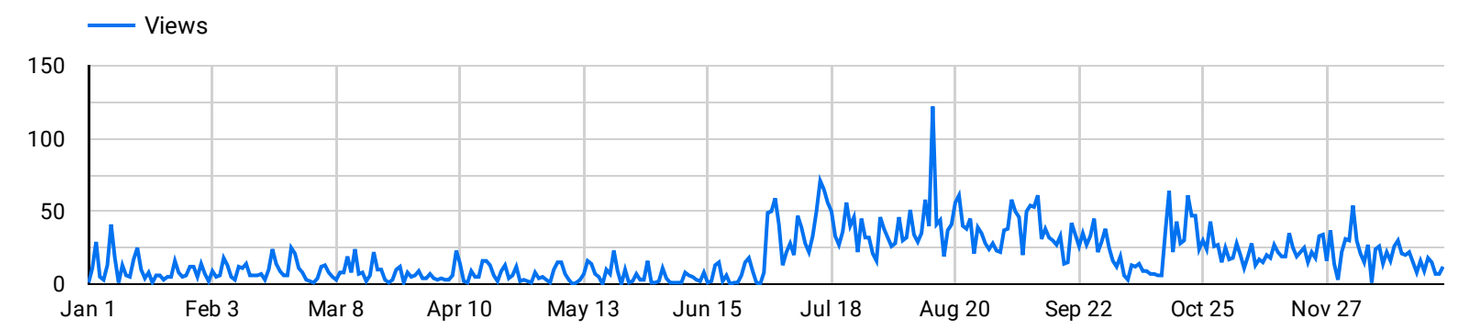
# Partners for Clean Water - 2025 Report

January-December *(Web Analytics)*

| Total users | Views | Average session duration | Bounce rate | Engagement rate |
|---|---|---|---|---|
| 5,161 | 6,792 | 00:00:21 | 92.63% | 7.37% |

| | Session source / medium | Views ▾ | Average session duration | Bounce rate |
|---|---|---|---|---|
| 1. | (direct) / (none) | 3,125 | 00:00:15 | 95.23% |
| 2. | google / cpc | 1,958 | 00:00:21 | 93.76% |
| 3. | google / organic | 810 | 00:00:31 | 88.74% |
| 4. | cityofboise.org / referral | 275 | 00:01:50 | 62% |
| 5. | boisedev.com / referral | 190 | 00:00:00 | 98.4% |
| 6. | In the Know Newsletter / email | 138 | 00:00:07 | 83.62% |
| 7. | bing / organic | 73 | 00:01:03 | 80% |
| 8. | Va guf Xabj Afjfyfggfe / email | 52 | 00:00:00 | 100% |
| 9. | (data not available) | 27 | 00:00:26 | 61.11% |
| 10. | boisestate.edu / referral | 23 | 00:00:37 | 53.85% |
| 11. | m.baidu.com / referral | 17 | 00:00:00 | 100% |
| 12. | us15.campaign-archive.com / referral | 14 | 00:05:42 | 28.57% |
| 13. | statics.teams.cdn.office.net / referral | 13 | 00:00:10 | 88.89% |
| 14. | m.facebook.com / referral | 13 | 00:00:00 | 100% |
| 15. | achdidaho.org / referral | 11 | 00:02:23 | 25% |
| 16. | (not set) | 8 | 00:00:00 | 100% |
| 17. | ieca.org / referral | 5 | 00:00:45 | 33.33% |
| 18. | gbc-powerpoint.officeapps.live.com / referral | 4 | 00:00:11 | 50% |
| 19. | facebook.com / referral | 4 | 00:00:00 | 100% |
| 20. | duckduckgo / organic | 3 | 00:00:00 | 100% |
| | **Grand total** | **6,792** | **00:00:21** | **92.63%** |

## Views Over Time



# Partners for Clean Water - 2025 Report

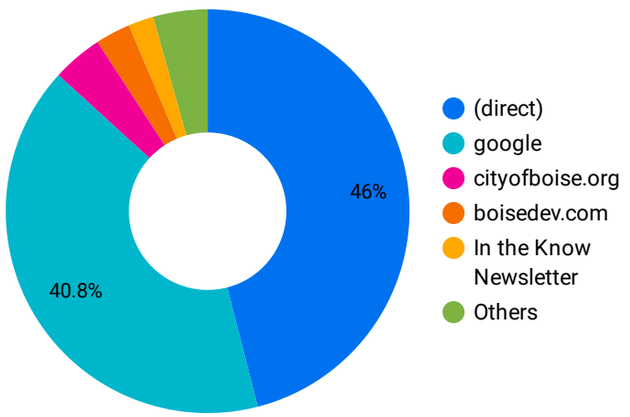
## Views per Page

| | Page title | Views |
|---|---|---|
| 1. | Partners for Clean Water | 2,027 |
| 2. | Report an Issue \| Partners for Clean Water | 1,477 |
| 3. | General Information \| Partners for Clean Water | 648 |
| 4. | Pets \| Partners for Clean Water | 621 |
| 5. | Gophers \| Partners for Clean Water | 453 |
| 6. | Landscaping, Gardening and Home Maintenance \| Partners for Clean Water | 199 |
| 7. | City of Boise \| Partners for Clean Water | 123 |
| 8. | Annual Report \| Partners for Clean Water | 122 |
| 9. | Contact Partners \| Partners for Clean Water | 117 |
| 10. | ACHD \| Partners for Clean Water | 81 |
| 11. | Aphids \| Partners for Clean Water | 80 |
| 12. | Boise State \| Partners for Clean Water | 79 |
| 13. | Partners for Clean Water Meetings \| Partners for Clean Water | 69 |
| 14. | City of Caldwell \| Partners for Clean Water | 64 |
| 15. | Pest Control \| Partners for Clean Water | 61 |
| 16. | Permit Info \| Partners for Clean Water | 59 |
| 17. | Cockroaches \| Partners for Clean Water | 55 |
| 18. | Drainage District #3 \| Partners for Clean Water | 46 |
| 19. | ITD DIST #3 \| Partners for Clean Water | 44 |
| 20. | 2022 Annual Report \| Partners for Clean Water | 44 |
| | **Grand total** | **6,792** |

## Total Users per Landing Page

| | Landing page | Total users |
|---|---|---|
| 1. | / | 1,581 |
| 2. | /report-an-issue | 1,106 |
| 3. | /residents/pets | 454 |
| 4. | /residents/general-information | 382 |
| 5. | /residents/pest-control/gophers | 409 |
| 6. | /residents/landscaping-gardening-and-home-maintenance | 151 |
| 7. | /aboutpartners/city-of-boise | 60 |
| 8. | /report-an-issue/contact-partners | 82 |
| 9. | /residents/pest-control/aphids | 76 |
| 10. | /aboutpartners/annual-report | 35 |
| 11. | /aboutpartners/boise-state | 32 |
| 12. | /businesses/general-information | 58 |
| 13. | /residents/pest-control | 57 |
| 14. | /meetings/partners-for-clean-water-meetings | 33 |
| 15. | /residents/pest-control/cockroaches | 54 |
| 16. | /aboutpartners/permit-info | 34 |
| 17. | /aboutpartners/achd | 40 |
| 18. | /aboutpartners/city-of-caldwell | 49 |
| 19. | /aboutpartners/itd-dist-3 | 36 |
| 20. | /aboutpartners/garden-city | 28 |
| 21. | /businesses | 38 |
| 22. | /aboutpartners/drainage-district-3 | 33 |
| 23. | /meetings | 36 |
| 24. | /residents | 33 |
| 25. | /contact-us | 32 |
| 26. | /aboutpartners | 30 |
| 27. | /residents/pest-control/spiders | 25 |
| 28. | /residents/pest-control/fleas | 25 |
| 29. | /aboutpartners/annual-report/2022-annual-report | 23 |
| 30. | /businesses/engineers-surveyors | 20 |
| | **Grand total** | **5,161** |

## Top 5 Session Source by Views



# 2025 Attachment C - Stormwater Outfall Monitoring Summary WY2025

# Stormwater Outfall Monitoring Summary

## Water Year 2025

Prepared by
Ada County Highway District
November 18, 2025

# Table of Contents

1 Introduction ..... 1
2 Monitoring Sites, Equipment, and Sample Type ..... 1
2.1 Sample Types ..... 2
3 Stormwater Outfall Monitoring Results ..... 2
3.1 Wet Weather Analytical Results ..... 3
3.2 Monitored Event Pollutant Loading Results ..... 4
3.3 Precipitation Results ..... 4
4 Quality Assurance/Quality Control ..... 4
4.1 Data Quality Discussion ..... 4
4.2 QC Sample Results ..... 5
4.2.1 Field QC Samples ..... 5
4.2.2 Equipment QC Samples ..... 5
Appendix A: Figures ..... A-1
Appendix B: Tables ..... B-1
Appendix C: Storm Event Reports ..... C-1

# 1 Introduction

Ada County Highway District (ACHD), Boise State University, City of Boise, City of Garden City, Drainage District #3, and the Idaho Transportation Department District #3 (Permittees) were issued a third-cycle National Pollutant Discharge Elimination System (NPDES) Phase Permit #IDS027561 (Permit) on October 1, 2021. The Permit authorizes the Permittees to discharge from municipal separate storm sewer system outfalls to the Boise River and its tributaries. According to Permit Part 6.2.1, Wet Weather Stormwater Outfall Monitoring, Permittees are required to monitor wet weather stormwater discharges according to the NPDES Phase I Stormwater Outfall Monitoring Plan (ACHD, 2022). The following summary covers wet weather outfall monitoring activities during water year (WY) 2025 (October 1, 2024–September 30, 2025). WY 2025 represents the fourth year of monitoring under the new Permit cycle.

The Stormwater Outfall Monitoring Plan (SWOMP) was developed in line with the Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring (QAPP) (ACHD, 2023) and describes the overall approach to stormwater outfall monitoring. Details about specific site characteristics, equipment, data collection and sample handling procedures, analytical methods, and quality assurance/quality control methodology are found in the SWOMP.

In WY 2025, data collection for the Stormwater Outfall Monitoring Program included precipitation, flow, and water quality samples. Four outfall monitoring sites within the Permit area (Lucky, Whitewater, Main, and Americana) were monitored for flow and water quality. The water quality samples were collected from wet weather discharges and included grab samples with corresponding field parameters and composite samples, which were collected throughout the duration of a storm. A flowmeter was installed up-pipe at the Main Alternate site when high river flows surcharged the Main outfall monitoring site in spring 2025. Grab samples and associated flow data were collected during one storm event at this location. Additionally, four rain gauge sites (East, Front, Cynthia Mann, and Whitewater) were maintained to provide localized precipitation data. Each rain gauge location represents at least one of the monitored subwatersheds and was used to verify that storm criteria were met.

# 2 Monitoring Sites, Equipment, and Sample Type

The Stormwater Outfall Monitoring Program consists of four monitored subwatersheds: Lucky, Whitewater, Main, and Americana. Monitoring stations for each subwatershed are located near the outfalls with dedicated equipment installed at each location. Table 2-1 depicts the equipment types and referenced rain gauge site for each subwatershed. A vicinity map illustrating the location of each subwatershed, monitoring station, and rain gauge site is found in Figure 1 (Appendix A).

Table 2-1. Monitoring Station Equipment

| Monitoring Site | Lucky | Whitewater | Main/ Main Alt | Americana |
|---|---|---|---|---|
| Sampler type | Hach AS950 | ISCO 6712 | ISCO 6712 | ISCO 6712 |
| Flowmeter type | Hach AV9000 | ISCO Signature | ISCO Signature | ISCO Signature |
| Referenced rain gauge | Cynthia Mann | Whitewater | Front | Front and East |
| Rain gauge equipment types | Global Water tipping bucket/HOBO event logger | Hach tipping bucket/ISCO Signature | Global Water tipping bucket/HOBO event logger | Global Water tipping bucket/HOBO event logger |

## 2.1 Sample Types

The sample types collected during WY 2025 included grab samples and composite samples. Grab samples represent a discrete measurement from the overall storm discharge while composite samples represent the entire discharge.

Grab samples were manually collected using a swing sampler. The grab samples were submitted to the Boise City Public Works Water Quality Laboratory (WQL) and analyzed for *E. coli*. At the time that the *E. coli* grab samples were collected, field parameters (temperature, pH, dissolved oxygen [DO], and conductivity) were measured using In-Situ AquaTROLL 400 multiparameter probes.

Composite samples were collected using automatic samplers, which worked in conjunction with flowmeters. After a predetermined volume of flow was discharged, the flowmeters triggered the samplers to collect a subsample. Each subsample was deposited into a 15-liter carboy, resulting in a flow-proportional composite sample. The composite samples were submitted to the WQL, where they were split for analysis. The following constituents were analyzed during WY 2025: biological oxygen demand, 5-day ($BOD_5$); chemical oxygen demand (COD); chloride; hardness as calcium carbonate ($CaCO_3$); turbidity; total suspended solids (TSS); total dissolved solids (TDS); total phosphorus as P (TP); orthophosphate, as P (ortho-P); ammonia, as N; nitrate + nitrite, as N; total Kjeldahl nitrogen (TKN); total arsenic; dissolved and total cadmium; dissolved copper; dissolved and total lead; total mercury; and dissolved zinc.

# 3 Stormwater Outfall Monitoring Results

Wet weather stormwater samples were collected according to the procedures listed in the SWOMP. One of the goals in the SWOMP is to collect three accepted (unqualified) grab and composite samples from each monitoring station during each water year. In WY 2025, samples were attempted during six storms to meet this goal. A summary of the storm dates and sample types collected is shown in Table 3-1. Storm setup and sampling information are included in Table 1 (Appendix B). Storm Event Reports were created after each stormwater sampling event to monitor the status of the SWOMP and discuss the hydrological and analytical data from the grab and composite samples. These Storm Event Reports include details about the storm and weather monitoring, hydrographs, sample collection times, and water quality results. Individual Storm Event Reports for the six sampling events during WY 2025 are included in Appendix C.

Table 3-1. Storm Events and Sample Types

| Date | Lucky | Whitewater | Main | Main Alt | Americana |
|---|---|---|---|---|---|
| December 14, 2024 | G, -- | G, C | G, C | --, -- | G, FD, FB, C |
| January 31, 2025 | --, C | --, C[1] | --, C | --, -- | --, C[1] |
| February 23, 2025 | G, C[2] | G, FD, FB, -- | G, C | --, -- | G, C[1] |
| May 17, 2025 | G, C | --, C | --, -- | G, FD, FB, -- | G, C |
| August 26, 2025 | --, C[2] | G[3], FD[3], FB[3], -- | --, -- | --, -- | --, -- |
| September 29, 2025 | --, -- | --, C[1,2] | --, -- | --, -- | --, C[2] |

*-- = No data*

*Sample types: G = grab, C = composite*

*QC Sample types: FD = field duplicate, FB = field blank*

[1] Composite sample qualified due to lack of representativeness (50%–75%).

[2] *Composite sample qualified due to exceedance of 6.0°C.*

[3] *E. coli sample qualified due to exceeded hold time (>8 and <16 hours).*

## 3.1 Wet Weather Analytical Results

Field parameter results are presented in Table 2 and analytical results are presented in Table 3 (Appendix B). Graphical representation of the analytical results is provided in Figures 2–5 (Appendix A). The following assessment provides minimum and maximum measured values for WY 2025. Qualified data are included in the range of measured/reported values as well as the data analysis. All measurements were recorded in accordance with QAPP and SWOMP procedures.

### DO and oxygen demand

- DO ranged from 4.33 to 10.95 milligrams per liter (mg/L).
- Biological oxygen demand, 5-day ($BOD_5$) concentrations ranged from 2.77 to 56.6 mg/L.
- Chemical oxygen demand (COD) concentrations ranged from 22.0 to 244 mg/L.

### pH, temperature, conductivity, and hardness

- pH values ranged from 6.48 to 8.96 standard units (S.U.).
- Temperature ranged from 6.34 to 23.67 degrees Celsius (C).
- Conductivity ranged from 107.63 to 912.49 micro-siemens per centimeter (µS/cm).
- Hardness ranged from 16.2 to 107 mg/L as calcium carbonate ($CaCO_3$).

### Bacteria

- *E. coli* ranged from 17.3 to 5,210 most probable number per 100 milliliters (MPN/100mL).

### Sediment

- Turbidity ranged from 13.9 to 113 nephelometric turbidity units (NTU).
- TSS ranged from 12.6 to 171 mg/L.
- TDS ranged from 39.0 to 378 mg/L.

### Nutrients

- Ammonia, as N ranged from 0.0779 to 2.11 mg/L.
- Chloride ranged from 1.67 to 176 mg/L
- Nitrate + nitrite, as N ranged from 0.133 to 0.902 mg/L.
- TKN ranged from 0.546 to 4.78 mg/L.

### Phosphorus

- TP ranged from 0.100 to 0.992 mg/L.
- Ortho-P ranged from 0.0395 to 0.519 mg/L.

### Metals

- Total arsenic ranged from 0.89 to 4.0 micrograms per liter (µg/L).
- Dissolved cadmium ranged from below the method detection limit (MDL) (< 0.0100) to 0.034 µg/L.
- Total cadmium ranged from below the MDL (<0.0200) to 0.18 µg/L.
- Dissolved copper ranged from 1.9 to 7.3 µg/L.
- Dissolved lead ranged from 0.026 to 0.22 µg/L.
- Total lead ranged from 0.61 to 11.7 µg/L.
- Total mercury ranged from below the MDL (< 0.0100) to 0.0249 µg/L.

- Dissolved zinc ranged from 10.2 to 95.8 µg/L.

## 3.2 Monitored Event Pollutant Loading Results

Pollutant loading estimates in pounds per acre (lbs/ac) were calculated for the following constituents of concern: TSS; TP; ammonia, as N; nitrate + nitrite, as N; and TKN. The reported concentrations were combined with runoff volumes measured during the storm event at each monitoring station. Formulas that were used, including conversion factors to estimate the loading in lbs/ac, are described in the SWOMP. Table 4 (Appendix B) presents the estimated pollutant loading of the constituents for each monitored storm. The pollutant loading contributions for each site are shown graphically in Figure 6 (Appendix A). Table 5 (Appendix B) is a summary of event loading estimates in pounds per acre for comparison between monitored drainage areas. A summary of the estimated ranges of pollutant loading for the storm events monitored during WY 2025 is presented below.

- TSS loading estimates ranged from 0.158 to 5.098 lbs/ac.
- TP loading estimates ranged from 0.000878 to 0.0173 lbs/ac.
- Ammonia, as N loading estimates ranged from 0.00116 to 0.0352 lbs/ac.
- Nitrate + nitrite, as N loading estimates ranged from 0.00117 to 0.0152 lbs/ac.
- TKN loading estimates ranged from 0.00686 to 0.0945 lbs/ac.

## 3.3 Precipitation Results

Precipitation data from the Front, East, Cynthia Mann, and Whitewater rain gauges were used to validate all targeted storms during WY 2025. Each monitoring station is associated with a rain gauge. Precipitation data recorded for each of the targeted storms can be found in Table 1 (Appendix B). Monthly totals for WY 2025 are shown in Figure 7 (Appendix A).

# 4 Quality Assurance/Quality Control

Quality assurance (QA) and quality control (QC) measures for the Stormwater Outfall Monitoring Program are presented in detail in the QAPP and SWOMP. No deviations from the QAPP and SWOMP occurred during WY 2025. QA and QC measures conducted during the water year are discussed below.

## 4.1 Data Quality Discussion

A data validation review process was used to evaluate the analytical and field parameter results. These checklists were used to compare monitoring methods and monitoring data collected against performance criteria established to meet the data quality objectives described in the QAPP. Analytical results that were qualified are identified in Table 3 (Appendix B). Further information regarding qualified samples is included in the Storm Event Reports located in Appendix C.

The following program criteria are used to identify storm events and representative composite samples.

- Storm criteria are met when the precipitation amount is greater than 0.10 inch, and the storm was preceded by a minimum 72 hours of dry weather from the previous measurable storm event (rainfall greater than 0.10 inch).
- Composite samples are considered representative of stormwater runoff when aliquots represent greater than 75 percent of total runoff volume from the storm or greater than 6 hours of the storm, including the first hour of runoff.

For WY 2025, samples collected during the following storm events were qualified for reasons discussed

below:

**January 31, 2025**

- The composite samples collected at the Whitewater and Americana monitoring stations on January 31 were qualified due to lack of representativeness.

**February 23, 2025**

- The composite sample collected at the Lucky monitoring station on February 23 was qualified due to exceeding the temperature preservation maximum of 6.0℃.
- The composite sample collected at the Americana monitoring station was qualified due to lack of representativeness.

**August 26, 2025**

- The *E. coli* grab sample collected at the Whitewater monitoring station on August 26 was qualified due to exceeded hold time.
- The composite collected at the Lucky monitoring station was qualified due to exceeding the temperature preservation maximum of 6.0℃.

**September 29, 2025**

- The composite sample collected at the Whitewater monitoring station was qualified due to lack of representativeness and exceeding the temperature preservation maximum of 6.0℃.
- The composite sample collected at the Americana monitoring station was qualified due to exceeding the temperature preservation maximum of 6.0℃.

## 4.2 QC Sample Results

QC sampling during WY 2025 consisted of a combination of field QC samples and equipment QC samples. Field QC sampling intervals followed a predetermined schedule, included in the SWOMP. Equipment QC samples were collected during fall maintenance. Sample results for all field QC samples are included in Table 6 (Appendix B).

### 4.2.1 Field QC Samples

Field QC samples include field duplicates, field blanks, and composite blanks.

Field duplicates are field grab samples that were taken alongside a parent grab sample to compare the accuracy of the data. For *E. coli,* the allowable logarithmic relative percent difference (RPD) between the duplicate sample and the parent sample is 40 percent for values where the parent and duplicates are greater than 10 MPN/100mL. All field duplicate samples collected during WY 2025 met the RPD standard.

Analytical results from field blanks and composite blanks are expected to be less than the MDL. If a water quality parameter is detected in a field blank or composite blank, all analytical results associated with the blank that exhibit a concentration of less than five times the concentration detected in the blank, are qualified. All field blank samples collected had results less than the MDL. No composite blanks were collected or analyzed in WY 2025.

### 4.2.2 Equipment QC Samples

Equipment QC samples include an equipment blank and a rinsate blank, both serving as a check on equipment decontamination procedures.

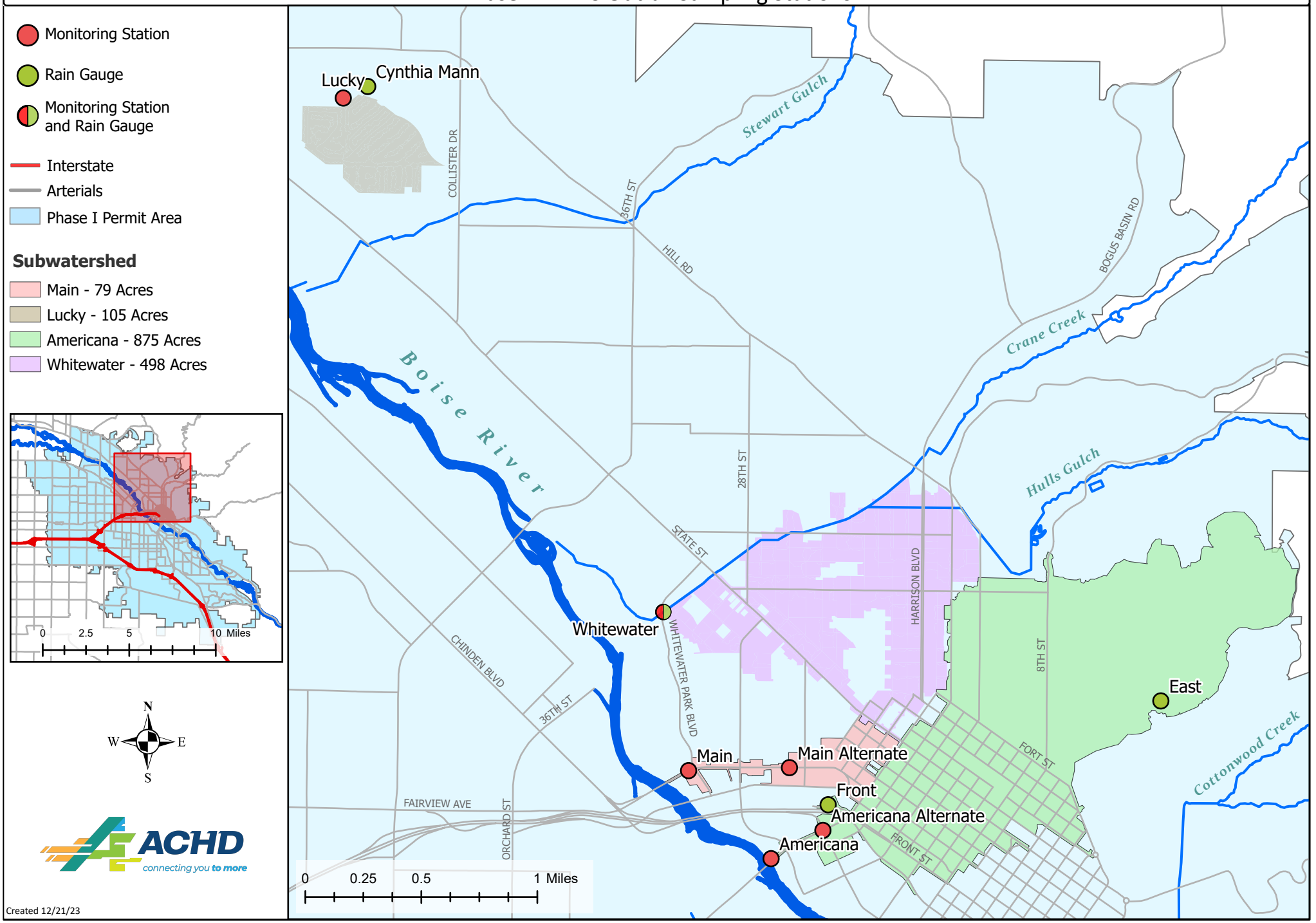
The equipment blank is collected before sampling for the water year begins and when new equipment is installed. For WY 2025, the equipment blanks were collected on September 9, 10, and 17, 2024, at the Lucky, Main, Whitewater, and Americana monitoring stations. Dissolved copper and dissolved zinc were detected in all blank samples. Dissolved copper and dissolved zinc results throughout WY 2025 that are less than five times the value detected in the blank have been qualified and are considered estimates. Total lead was detected in the blank at Main. However, all total lead samples collected throughout the WY were greater than five times the values detected in the blank and are unqualified. All other results were greater than five times the detected value in the equipment blank and are unqualified.

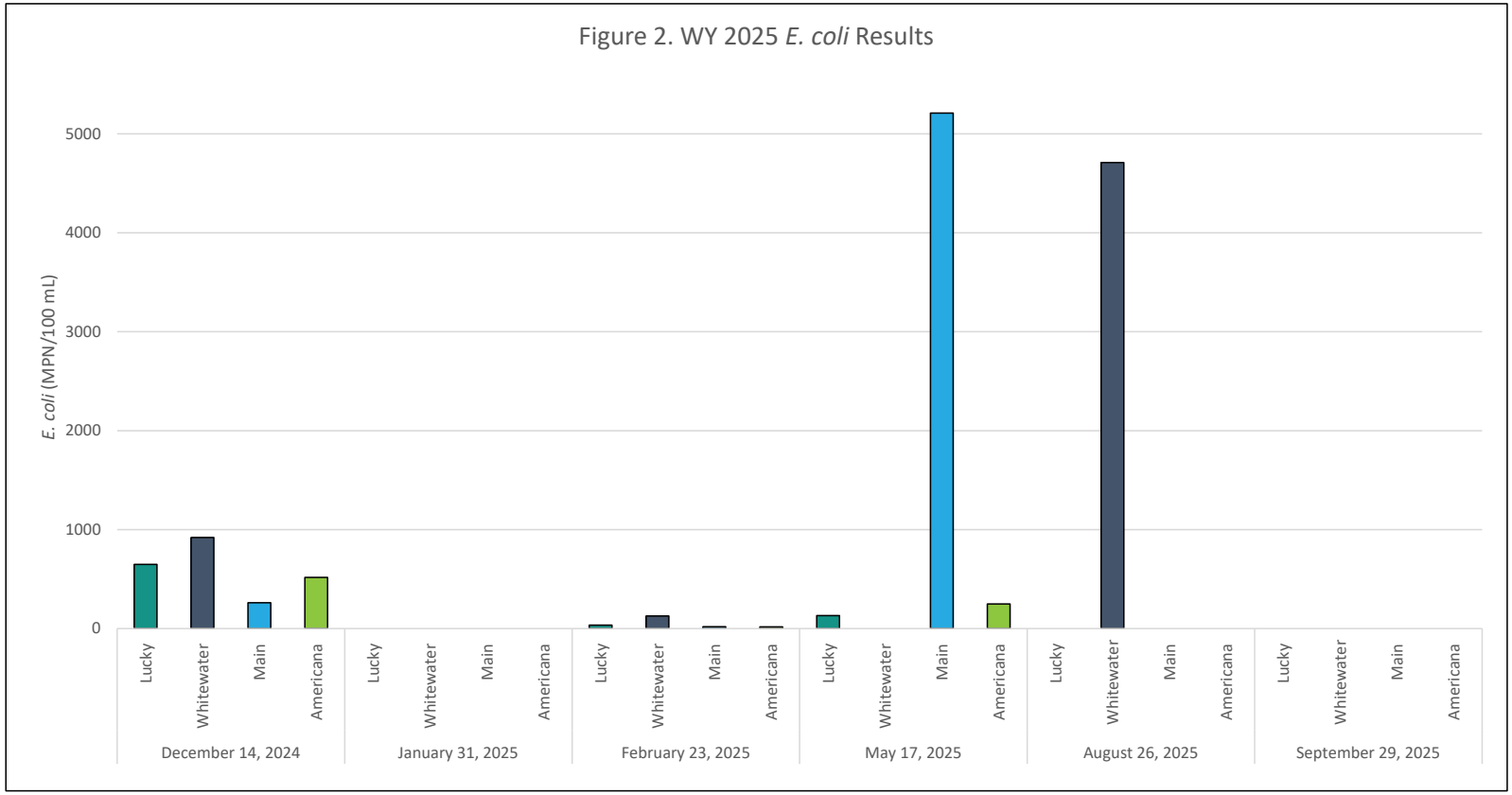
The rinsate blank is collected after sampling for the water year has been completed. The rinsate blanks for WY 2025 were collected on September 8 and 9, 2025, at the Lucky, Whitewater, and Americana monitoring stations. Total arsenic was detected in the Lucky blank. Total lead, dissolved copper, and dissolved zinc were detected in the Whitewater blank, and total lead, dissolved copper, and turbidity were detected in the Americana blank. However, all results collected throughout the WY were greater than five times the values detected in the blanks and are unqualified.

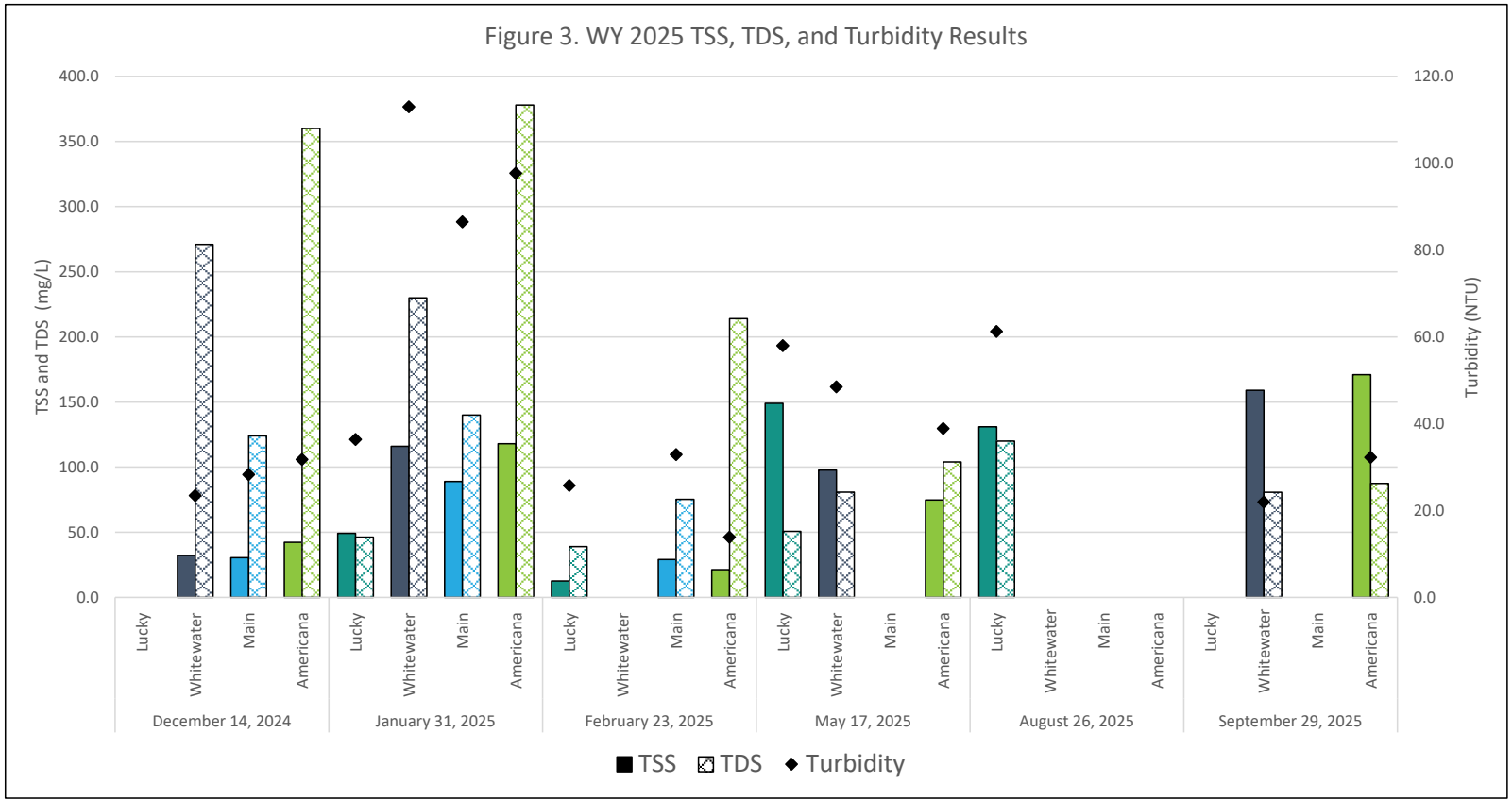
# Appendix A: Figures

Figure 1. Vicinity Map
Figure 2. WY 2025 *E. coli* Results
Figure 3. WY 2025 TSS, TDS, and Turbidity Results
Figure 4. WY 2025 Ammonia, Nitrate + Nitrite, and TKN Results
Figure 5. WY 2025 Total Phosphorus and Orthophosphate Results
Figure 6. WY 2025 Pollutant Loadings
Figure 7. WY 2025 Monthly Precipitation

# Figure 1. Vicinity Map
## Phase I NPDES Outfall Sampling Stations




Figure 2. WY 2025 E. coli Results
E. coli (MPN/100 mL)
5000
4000
3000
2000
1000
0
Lucky
Whitewater
Main
Americana
December 14, 2024
January 31, 2025
February 23, 2025
May 17, 2025
August 26, 2025
September 29, 2025


Figure 3. WY 2025 TSS, TDS, and Turbidity Results
TSS and TDS (mg/L)
Turbidity (NTU)
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Lucky
Whitewater
Main
Americana
December 14, 2024
January 31, 2025
February 23, 2025
May 17, 2025
August 26, 2025
September 29, 2025
TSS
TDS
Turbidity

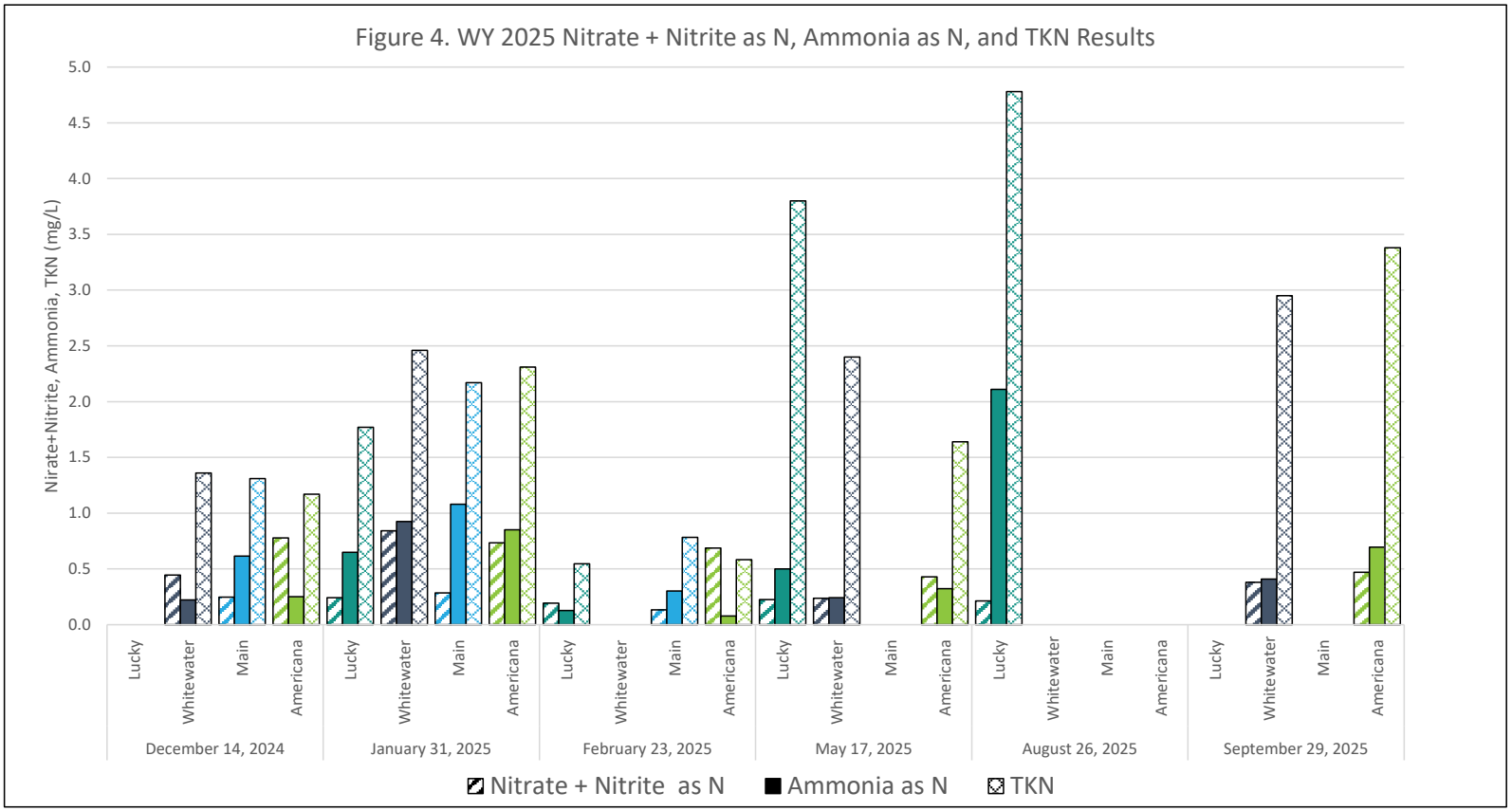
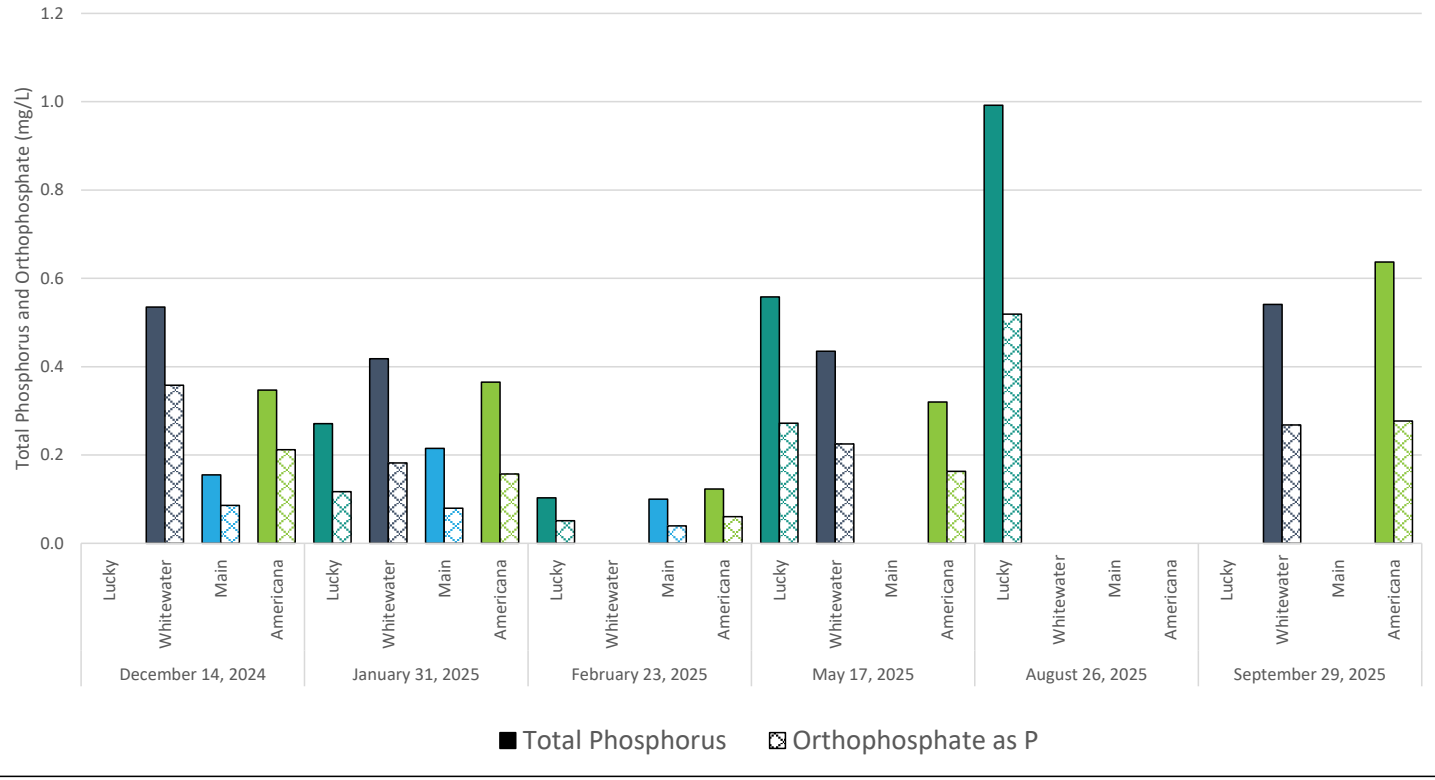
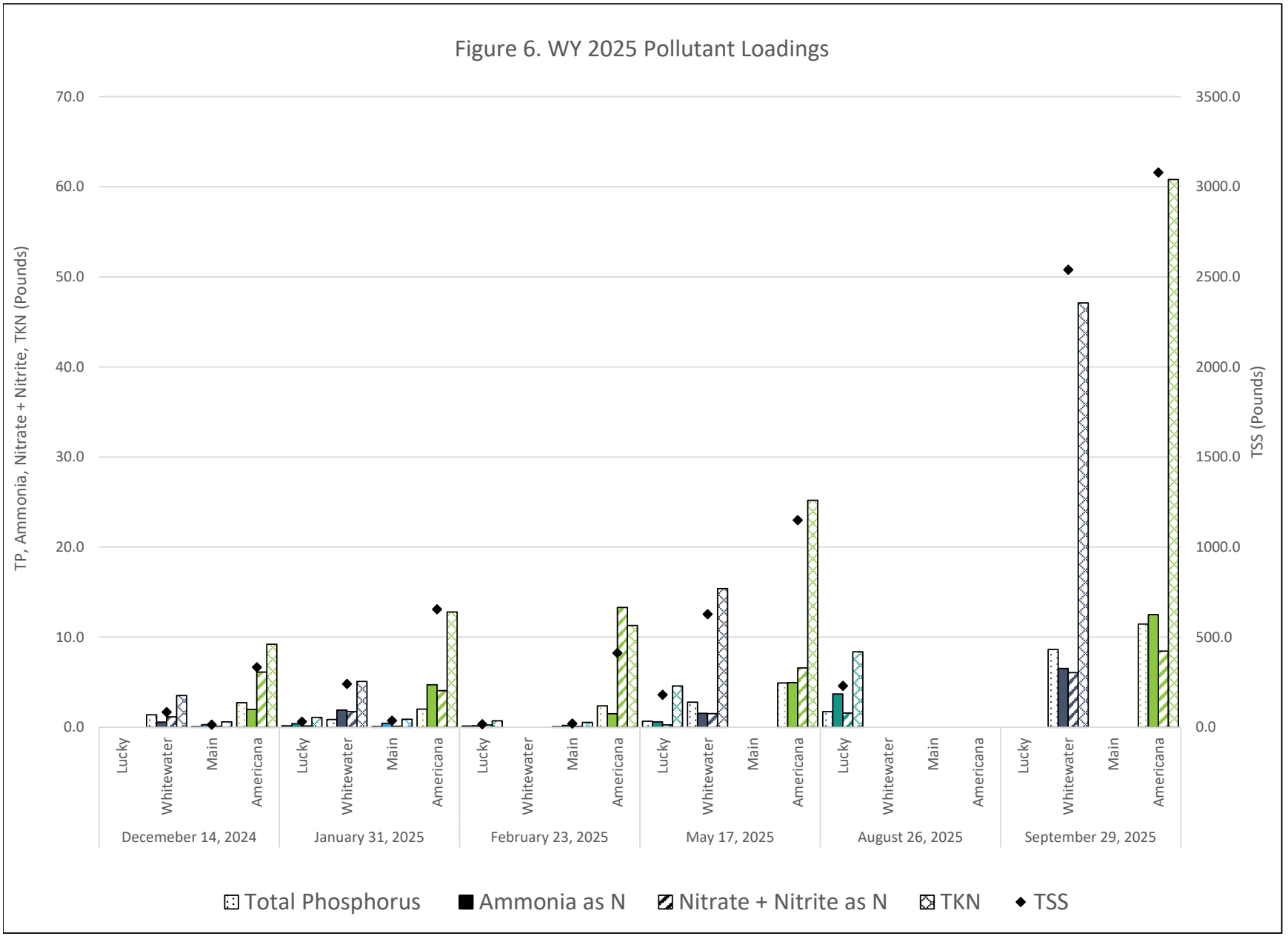
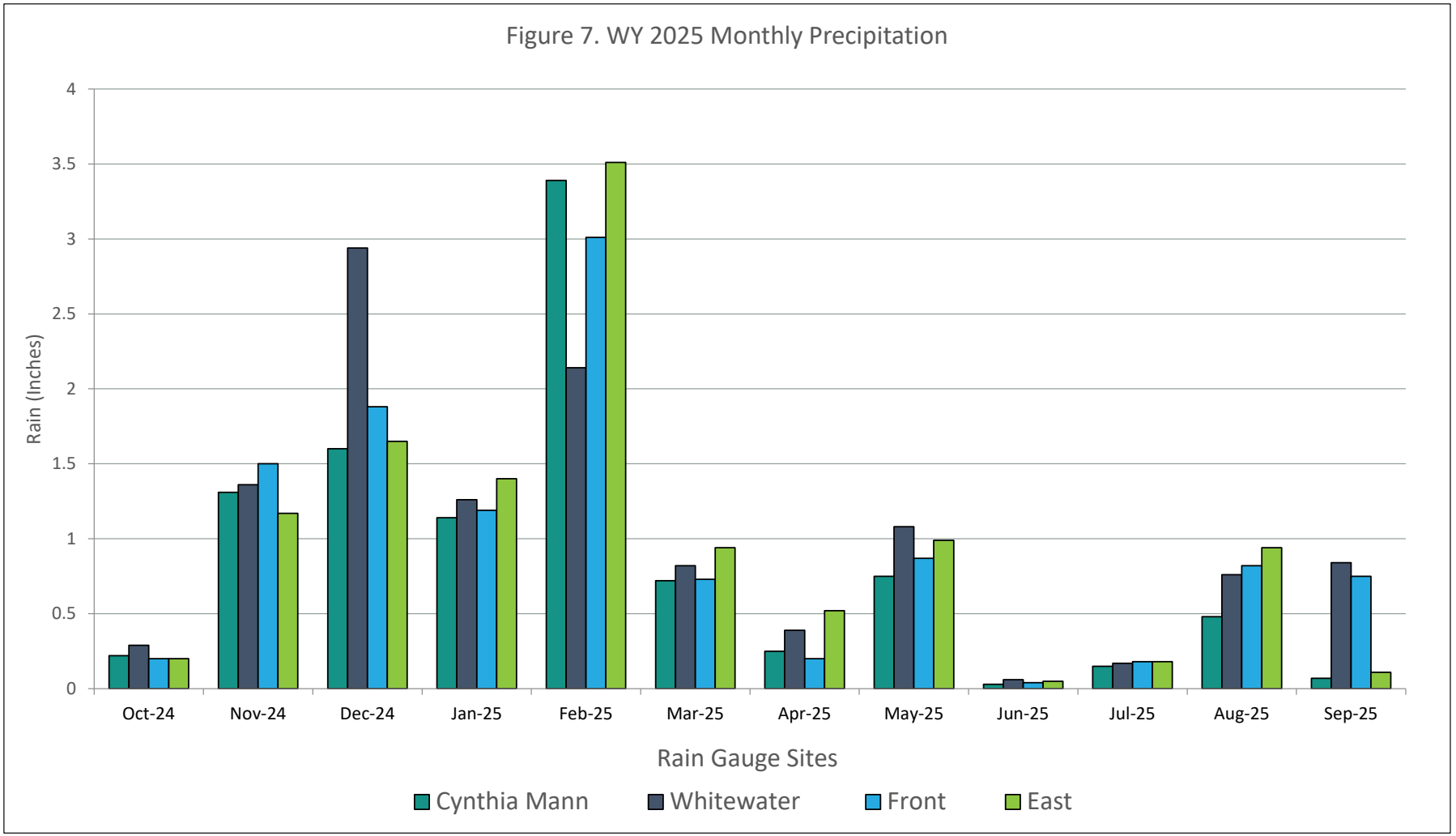

Figure 4. WY 2025 Nitrate + Nitrite as N, Ammonia as N, and TKN Results
Nirate+Nitrite, Ammonia, TKN (mg/L)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Lucky
Whitewater
Main
Americana
December 14, 2024
January 31, 2025
February 23, 2025
May 17, 2025
August 26, 2025
September 29, 2025
Nitrate + Nitrite as N
Ammonia as N
TKN

Figure 5. WY 2025 Total Phosphorus and Orthophosphate as P Results




Figure 6. WY 2025 Pollutant Loadings
TP, Ammonia, Nitrate + Nitrite, TKN (Pounds)
TSS (Pounds)
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
3500.0
3000.0
2500.0
2000.0
1500.0
1000.0
500.0
0.0
Lucky
Whitewater
Main
Americana
Decemeber 14, 2024
January 31, 2025
February 23, 2025
May 17, 2025
August 26, 2025
September 29, 2025
Total Phosphorus
Ammonia as N
Nitrate + Nitrite as N
TKN
TSS




*Note:*

*1. No data was collected at the Cynthia Mann and East rain gauges from 9/11/2025 to 10/1/2025.*

# Appendix B: Tables

Table 1. Monitored Storms and Samples Collected

Table 2. Field Parameter Summary

Table 3. Analytical Results Summary

Table 4. Event Loading for Monitored Drainages in Pounds

Table 5. Event Loading in Pounds per Acre

Table 6. QC Sample Summary

| Table 1. Monitored Storms and Samples Collected | | | | | |
|---|---|---|---|---|---|
| Event Date | Sampling Information | Lucky | Whitewater | Main/ Main Alt | Americana |
| December 14, 2024 | Grab samples collected and submitted? | YES | YES | YES | YES |
| | Composite samples collected and submitted? | NO | YES | YES | YES |
| | Trigger volume | 2,895 gal | 801 cf | 456 cf | 2,960 cf |
| | Sampler enable condition (in) | Level >2.11 | Level >2.9 | Level >1.74 | Level >5.5 |
| | Percent of storm flow sampled | -- | 85% | 92% | 89% |
| | Composite sample duration (hrs.) | -- | 8 | 7 | 8.5 |
| | Storm precipitation (in) | 0.21 | 0.23 | 0.19 | 0.19/0.26 |
| January 31, 2025 | Grab samples collected and submitted? | NO | NO | NO | NO |
| | Composite samples collected and submitted? | YES | YES | YES | YES |
| | Trigger volume | 2,895 gal | 801 cf | 456 cf | 2,960 cf |
| | Sampler enable condition (in) | Level >2.61 | Level >3.15 | Level >2.4 | Level >5.09 |
| | Percent of storm flow sampled | 93% | 54% | 98% | 74% |
| | Composite sample duration (hrs.) | 4 | 1.5 | 6 | 3.5 |
| | Storm precipitation (in) | 0.20 | 0.18 | 0.21 | 0.21/0.23 |
| February 23, 2025 | Grab samples collected and submitted? | YES | YES | YES | YES |
| | Composite samples collected and submitted? | YES | NO | YES | YES |
| | Trigger volume | 3,950 gal | 1,093 cf | 622 cf | 4,036 cf |
| | Sampler enable condition (in) | Level >2.69 | Level >2.57 | Level >2.2 | Level >6.0 |
| | Percent of storm flow sampled | 92% | -- | 90% | 71% |
| | Composite sample duration (hrs.) | 11.5 | -- | 10 | 11.5 |
| | Storm precipitation (in) | 0.37 | 0.31 | 0.27 | 0.27/0.38 |
| May 17, 2025 | Grab samples collected and submitted? | YES | NO | YES | YES |
| | Composite samples collected and submitted? | YES | YES | NO | YES |
| | Trigger volume | 3,950 gal | 1,093 cf | -- | 4,036 cf |
| | Sampler enable condition (in) | Level >2.62 | Level >5.25 | -- | Level >7.0 |
| | Percent of storm flow sampled | 90% | 69% | -- | 86% |
| | Composite sample duration (hrs.) | 7 | 8 | -- | 17 |
| | Storm precipitation (in) | 0.42 | 0.44 | 0.45 | 0.45/0.51 |
| August 26, 2025 | Grab samples collected and submitted? | NO | YES | NO | NO |
| | Composite samples collected and submitted? | YES | NO | NO | NO |
| | Trigger volume | 3,950 gal | 1,093 cf | -- | 4,036 cf |
| | Sampler enable condition (in) | Level >2.29 | Level >6.3 | -- | Level >6.8 |
| | Percent of storm flow sampled | 89% | -- | -- | -- |
| | Composite sample duration (hrs.) | 4.5 | -- | -- | -- |
| | Storm precipitation (in) | 0.41 | 0.69 | 0.80 | 0.80/0.91 |
| September 29, 2025 | Grab samples collected and submitted? | NO | NO | NO | NO |
| | Composite samples collected and submitted? | NO | YES | NO | YES |
| | Trigger volume | -- | 801 cf | -- | 2,960 cf |
| | Sampler enable condition (in) | -- | Level >7.0 | -- | Level >5.75 |
| | Percent of storm flow sampled | -- | 52% | -- | 90% |
| | Composite sample duration (hrs.) | -- | 3.5 | -- | 7 |
| | Storm precipitation (in) | -- | 0.73 | 0.62 | 0.62/-- |

*Notes:*

*-- = No data.*

| Table 2. Field Parameter Results | | | | | |
|---|---|---|---|---|---|
| Event Date | Monitoring Station | Field Parameters | | | |
| | | Dissolved Oxygen | pH | Conductivity | Temperature |
| | | mg/L | S.U. | µS/cm | C |
| Decemeber 14, 2024 | Lucky | 10.37 | 8.96 | 107.63 | 6.96 |
| | Whitewater | 9.10 | 8.07 | 912.49 | 7.09 |
| | Main | 10.95 | 7.94 | 485.43 | 6.56 |
| | Americana | 10.69 | 7.60 | 596.06 | 7.48 |
| January 31, 2025 | Lucky | -- | -- | -- | -- |
| | Whitewater | -- | -- | -- | -- |
| | Main | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- |
| February 23, 2025 | Lucky | 10.03 | 7.99 | 114.81 | 8.01 |
| | Whitewater | 10.22 | 7.64 | 180.45 | 6.34 |
| | Main | 10.87 | 7.98 | 203.06 | 7.74 |
| | Americana | 5.59 | 8.04 | 714.07 | 12.19 |
| May 17, 2025 | Lucky | 4.33 | 7.36 | 285.77 | 13.97 |
| | Whitewater | -- | -- | -- | -- |
| | Main Alt | 7.30 | 6.48 | 194.17 | 17.60 |
| | Americana | 8.39 | 6.93 | 385.45 | 15.56 |
| August 26, 2025 | Lucky | -- | -- | -- | -- |
| | Whitewater | 6.537 | 6.513 | 112.4 | 23.67 |
| | Main | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- |
| September 29, 2025 | Lucky | -- | -- | -- | -- |
| | Whitewater | -- | -- | -- | -- |
| | Main | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- |

*Notes:*

*-- = No data.*

Table 3. Analytical Results Summary

| Event Date | Monitoring Station | Sample ID | Analytical Parameters | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | E. coli | $BOD_5$ | COD | Chloride | Hardness as CaCO3 | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | MPN/100 mL | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Decemeber 14, 2024 | Lucky | 241214-03-WG | 648.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Whitewater | 241214-11-WG/WC | 920.8 | 21.6 | 94.0 | 100 | 74.9 | 23.5 | 32.2 | 271 | 0.535 | 0.358 | 0.222 | 0.445 | 1.36 | 2.2 | <0.0100 | 0.045 | 2.4[4] | 0.22 | 2.6 | <0.0100 | 17.3 |
| | Main | 241214-12-WG/WC | 261.3 | 9.48 | 66.0 | 50.5 | 25.6 | 28.3 | 30.5 | 124 | 0.155 | 0.0859 | 0.615 | 0.247 | 1.31 | 0.90 | 0.018 | 0.058 | 3.5 | 0.14 | 3.3 | <0.0100 | 31.0 |
| | Americana | 241214-14-WG/WC | 517.2 | 14.8 | 75.0 | 150 | 107 | 31.8 | 42.3 | 360 | 0.347 | 0.212 | 0.251 | 0.778 | 1.17 | 3.4 | 0.034 | 0.091 | 3.2[4] | 0.15 | 3.8 | 0.0119 | 24.3 |
| January 31, 2025 | Lucky | 250131-03-WC | -- | 14.5 | 89.0 | 6.07 | 17.4 | 36.4 | 49.2 | 46.3 | 0.271 | 0.117 | 0.649 | 0.242 | 1.77 | 1.4 | <0.0100 | 0.055 | 2.3[4] | 0.083 | 1.5 | 0.0111 | 28.1 |
| | Whitewater | 250131-11-WC | -- | 20.1[1] | 140[1] | 83.2[1] | 95.2[1] | 113[1] | 116[1] | 230[1] | 0.418[1] | 0.182[1] | 0.925[1] | 0.842[1] | 2.46[1] | 4.0[1] | 0.012[1] | 0.12[1] | 3.5[1] | 0.083[1] | 7.7[1] | 0.0115[1] | 22.0[1] |
| | Main | 250131-12-WC | -- | 15.8 | 134 | 59.4 | 34.6 | 86.5 | 89.0 | 140 | 0.215 | 0.0795 | 1.08 | 0.285 | 2.17 | 2.0 | 0.019 | 0.12 | 4.7[4] | 0.063 | 7.2 | 0.0138 | 40.8 |
| | Americana | 250131-14-WC | -- | 22.6[1] | 153[1] | 176[1] | 98.5[1] | 97.7[1] | 118[1] | 378[1] | 0.365[1] | 0.157[1] | 0.851[1] | 0.734[1] | 2.31[1] | 3.7[1] | 0.024[1] | 0.14[1] | 3.8[1,4] | 0.091[1] | 7.0[1] | 0.0144[1] | 35.0[1] |
| February 23, 2025 | Lucky | 250223-03-WG/WC | 35.0 | 2.77[2] | 22.0[2] | 3.93 | 16.2 | 25.8[2] | 12.6[2] | 39.0[2] | 0.103[2] | 0.0512[2] | 0.127[2] | 0.193[2] | 0.546[2] | 0.89 | <0.0100[2] | <0.0200 | 1.9[2,4] | 0.026[2] | 0.61 | <0.0100 | 10.2[2] |
| | Whitewater | 250223-11-WG | 127.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Main | 250223-12-WG/WC | 18.9 | 4.66 | 51.0 | 28.0 | 20.8 | 32.9 | 29.1 | 75.3 | 0.100 | 0.0395 | 0.302 | 0.133 | 0.783 | 0.90 | 0.016 | 0.047 | 2.9[4] | 0.044 | 2.3 | <0.0100 | 24.0 |
| | Americana | 250223-14-WG/WC | 17.3 | 3.56[1] | 31[1] | 72.4[1] | 87.8[1] | 13.9[1] | 21.3[1] | 214[1] | 0.123[1] | 0.0604[1] | 0.0779[1] | 0.687[1] | 0.583[1] | 3.4[1] | 0.012[1] | 0.032[1] | 2.0[1,4] | 0.036[1] | 1.9[1] | <0.0100[1] | 15.4[1,4] |
| May 17, 2025 | Lucky | 250517-03-WG/WC | 131.4 | 37.8 | 188 | 1.67 | 20.3 | 58.0 | 149 | 50.7 | 0.558 | 0.272 | 0.500 | 0.225 | 3.80 | 2.0 | <0.0100 | 0.12 | 5.4 | 0.086 | 3.1 | 0.0138 | 32.9 |
| | Whitewater | 250517-11-WC | -- | 31.6 | 135 | 8.01 | 31.9 | 48.5 | 97.7 | 80.8 | 0.435 | 0.225 | 0.242 | 0.237 | 2.40 | 2.0 | <0.0100 | 0.078 | 4.3 | 0.19 | 5.1 | 0.0146 | 20.8 |
| | Main | 250517-12-WG | 5210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Americana | 250517-14-WG/WC | 248.9 | 25.4 | 132 | 17.2 | 53.9 | 38.9 | 74.8 | 104 | 0.320 | 0.163 | 0.323 | 0.429 | 1.64 | 3.0 | 0.012 | 0.070 | 5.0 | 0.10 | 4.1 | <0.0100 | 26.8 |
| August 26, 2025 | Lucky | 250826-03-WC | – | 56.6[2] | 244[2] | 2.58 | 33.9 | 61.3[2] | 131[2] | 120[2] | 0.992[2] | 0.519[2] | 2.11[2] | 0.902[2] | 4.78[2] | 3.7 | 0.019[2] | 0.12 | 7.3[2] | 0.15[2] | 3.8 | 0.0203 | 95.8[2] |
| | Whitewater | 250826-11-WG | 4710[3] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Main | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| September 29, 2025 | Lucky | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Whitewater | 250929-11-WC | -- | 39.6[1,2] | 146[1,2] | 5.11[1] | 29.3[1] | 22.0[1,2] | 159[1,2] | 80.7[1,2] | 0.541[1,2] | 0.268[1,2] | 0.409[1,2] | 0.380[1,2] | 2.95[1,2] | 3.0[1] | <0.0100[1,2] | 0.093[1] | 3.9[1,2] | 0.21[1,2] | 8.4[1] | 0.0229[1] | 15.5[1,2] |
| | Main | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Americana | 250929-14-WC | -- | 46.4[2] | 215[2] | 6.64 | 35.1 | 32.3[2] | 171[2] | 87.5[2] | 0.637[2] | 0.277[2] | 0.695[2] | 0.470[2] | 3.38[2] | 3.9 | <0.0100[2] | 0.18 | 5.3[2] | 0.18[2] | 11.7 | 0.0249 | 31.0[2] |

*Notes:*

*-- = No data.*

*[1] Data qualified due to lack of representativeness (50%–75%).*

*[2] Composite sample qualified due to exceedance of 6.0°C.*

*[3] E. coli sample qualified due to exceeded hold time (>8 and <16 hours).*

*[4] Analytical parameter is qualified due to being less than five times the value detected in the equipment blank. See Table 6 for equipment blank results.*

*WG = Wet grab sample.*

*WC = Wet composite sample.*

| Table 4. Event Loading for Monitored Drainages in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Event Date | Monitoring Station | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Decemeber 14, 2024 | Lucky | -- | -- | -- | -- | -- |
| | Whitewater | 83.6 | 1.39 | 0.576 | 1.16 | 3.53 |
| | Main | 14.1 | 0.0718 | 0.285 | 0.114 | 0.607 |
| | Americana | 333 | 2.73 | 1.98 | 6.13 | 9.22 |
| January 31, 2025 | Lucky | 30.6 | 0.169 | 0.404 | 0.151 | 1.10 |
| | Whitewater | 240[1] | 0.865[1] | 1.91[1] | 1.74[1] | 5.09[1] |
| | Main | 36.7 | 0.0886 | 0.445 | 0.117 | 0.894 |
| | Americana | 654[1] | 2.02[1] | 4.72[1] | 4.07[1] | 12.8[1] |
| February 23, 2025 | Lucky | 16.6[2] | 0.136[2] | 0.168[2] | 0.255[2] | 0.720[2] |
| | Whitewater | -- | -- | -- | -- | -- |
| | Main | 20.2 | 0.0694 | 0.210 | 0.0923 | 0.543 |
| | Americana | 412[1] | 2.38[1] | 1.51[1] | 13.3[1] | 11.3[1] |
| May 17, 2025 | Lucky | 180 | 0.675 | 0.605 | 0.272 | 4.59 |
| | Whitewater | 627 | 2.79 | 1.55 | 1.52 | 15.4 |
| | Main Alt | -- | -- | -- | -- | -- |
| | Americana | 1149 | 4.92 | 4.96 | 6.59 | 25.2 |
| August 26, 2025 | Lucky | 230[2] | 1.739[2] | 3.70[2] | 1.581[2] | 8.38[2] |
| | Whitewater | -- | -- | -- | -- | -- |
| | Main | -- | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- | -- |
| September 29, 2025 | Lucky | -- | -- | -- | -- | -- |
| | Whitewater | 2538.9[1,2] | 8.639[1,2] | 6.531[1,2] | 6.069[1,2] | 47.105[1,2] |
| | Main | -- | -- | -- | -- | -- |
| | Americana | 3078[2] | 11.46[2] | 12.51[2] | 8.459[2] | 60.8[2] |

*Notes:*

*-- = No data*

[1] *Data qualified due to lack of representativeness (50%–75%).*

[2] *Composite sample qualified due to exceedance of 6.0°C.*

| Table 5. Event Loading in Pounds/Acre | | | | | | |
|---|---|---|---|---|---|---|
| Event Date | Monitoring Station | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Decemeber 14, 2024 | Lucky | -- | -- | -- | -- | -- |
| | Whitewater | 0.168 | 0.00279 | 0.00116 | 0.00233 | 0.00709 |
| | Main | 0.178 | 0.000909 | 0.00361 | 0.00144 | 0.00768 |
| | Americana | 0.381 | 0.00312 | 0.00226 | 0.00701 | 0.0105 |
| January 31, 2025 | Lucky | 0.291 | 0.00161 | 0.00385 | 0.00144 | 0.0105 |
| | Whitewater | 0.482[1] | 0.00174[1] | 0.00384[1] | 0.00349[1] | 0.0102[1] |
| | Main | 0.465 | 0.00112 | 0.00563 | 0.00148 | 0.0113 |
| | Americana | 0.747[1] | 0.00231[1] | 0.00539[1] | 0.00465[1] | 0.0146[1] |
| February 23, 2025 | Lucky | 0.158[2] | 0.00130[2] | 0.00160[2] | 0.00243[2] | 0.00686[2] |
| | Whitewater | -- | -- | -- | -- | -- |
| | Main | 0.256 | 0.000878 | 0.00266 | 0.00117 | 0.00687 |
| | Americana | 0.471[1] | 0.00272[1] | 0.00173[1] | 0.0152[1] | 0.0129[1] |
| May 17, 2025 | Lucky | 1.71 | 0.00643 | 0.00576 | 0.00259 | 0.0437 |
| | Whitewater | 1.26 | 0.00560 | 0.00311 | 0.00305 | 0.0309 |
| | Main | -- | -- | -- | -- | -- |
| | Americana | 1.31 | 0.00562 | 0.00567 | 0.00753 | 0.0288 |
| August 26, 2025 | Lucky | 2.19[2] | 0.0166[2] | 0.0352[2] | 0.0151[2] | 0.0798[2] |
| | Whitewater | -- | -- | -- | -- | -- |
| | Main | -- | -- | -- | -- | -- |
| | Americana | -- | -- | -- | -- | -- |
| September 29, 2025 | Lucky | – | – | – | – | – |
| | Whitewater | 5.098[1,2] | 0.0173[1,2] | 0.0131[1,2] | 0.0122[1,2] | 0.0945[1,2] |
| | Main | – | – | – | – | – |
| | Americana | 3.52[2] | 0.0131[2] | 0.0143[2] | 0.00967[2] | 0.0695[2] |

*Notes:*

*-- = No data.*

[1] *Data qualified due to lack of representativeness (50%–75%).*

[2] *Composite sample qualified due to exceedance of 6.0°C.*

Table 6. QC Sample Summary

| Event Date | Parent Sample | Sample ID | QC Sample Type | Analytical Parameters | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | E. coli | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | | MPN/100 mL | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| September 9, 2024 | -- | 240909-03-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | < 0.100 | < 0.0500 | <0.0100 | <0.0200 | 0.59 | <0.0100 | <0.0100 | <0.0100 | 1.3 |
| September 10, 2024 | -- | 240910-11-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | < 0.100 | < 0.0500 | <0.0100 | <0.0200 | 0.59 | <0.0100 | <0.0100 | <0.0100 | 2.5 |
| | -- | 240910-14-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | < 0.100 | < 0.0500 | <0.0100 | <0.0200 | 0.93 | <0.0100 | <0.0100 | <0.0100 | 4.0 |
| September 17, 2024 | -- | 240917-12-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | < 0.100 | < 0.0500 | <0.0100 | <0.0200 | 1.4 | <0.0100 | 0.023 | <0.0100 | 1.7 |
| December 14, 2024 | Americana grab | 241214-14-001 | Field blank | < 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Americana grab | 241214-14-101 | Field duplicate | 727.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | **Calculated parent/duplicate RPD** | | | **4%** | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| February 23, 2024 | Whitewater grab | 250223-11-001 | Field blank | <1.0 | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Whitewater grab | 250223-11-101 | Field duplicate | 98.7 | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | **Calculated parent/duplicate RPD** | | | **5%** | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| May 17, 2025 | Main grab | 250517-12-001 | Field blank | <1.0 | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Main grab | 250517-12-101 | Field duplicate | 6,090 | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | **Calculated parent/duplicate RPD** | | | **2%** | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| August 26, 2025 | Whitewater grab | 250826-11-001 | Field blank | <1.0[3] | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | Whitewater grab | 250826-11-101 | Field duplicate | 4710[3] | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | **Calculated parent/duplicate RPD** | | | **0%** | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| September 8, 2025 | - | 250908-03-004 | Rinsate blank | – | <2.00 | <7.00 | <0.500 | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | 0.078 | <0.0100 | <0.0100 | <0.140 | <0.005 | <0.0100 | <0.0100 | <0.500 |
| September 9, 2025 | – | 250909-14-004 | Rinsate blank | – | <2.00 | <7.00 | <0.500 | <0.100 | 0.4 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | <0.0500 | <0.0100 | <0.0100 | 0.29 | <0.005 | 0.030 | <0.0100 | <0.500 |
| | – | 250909-11-004 | Rinsate blank | – | <2.00 | <7.00 | <0.500 | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | <0.0500 | <0.0100 | <0.0100 | 0.16 | <0.005 | 0.024 | <0.0100 | 2.8 |
| Allowable RPD | | | | 40% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |

*-- = No data.*

[3] *E. coli sample qualified due to exceeded hold time (>8 and <16 hours).*

# Appendix C: Storm Event Reports

Storm Event Report No. 1: December 14, 2024

Storm Event Report No. 2: January 31, 2025

Storm Event Report No. 3: February 23, 2025

Storm Event Report No. 4: May 17, 2025

Storm Event Report No. 5: August 26, 2025

Storm Event Report No. 6: September 29, 2025

# Technical Memorandum

1290 W. Myrtle St. Suite 340
Boise, ID 83702

Phone: 801.316.9859

Prepared for: Ada County Highway District

Project Title: NPDES Phase I Stormwater Support WY 2025

Project No.: 196784

**Technical Memorandum**

Subject: ACHD Phase I Storm Event Report for December 14, 2024

Date: February 19, 2025

To: Monica Lowe

Cc: Steven Turner

Kristen Jolliffe

From: Zuly Lapa, Project Engineer

Prepared by: Reghan Hodges, Project Engineer

Reviewed by: Zuly Lapa, EIT, Project Engineer

Nikki McDonald, PE, Project Manager

*Limitations:*

*This document was prepared solely for ACHD in accordance with professional standards at the time the services were performed and in accordance with the contract between ACHD and Brown and Caldwell dated September 14, 2024. This document is governed by the specific scope of work authorized by ACHD; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by ACHD and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the December 14, 2024, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

**Table 2-1. WY 2025 Samples Collected**

| Date | Lucky | Whitewater | Main | Americana | AS_6 |
|---|---|---|---|---|---|
| December 14, 2024 | G, C[1] | G, C | G, C | G, C | G, C |
| Unqualified Samples: | 1G | 1G, 1C | 1G, 1C | 1G, 1C | 1G, 1C |
| Samples Remaining: | 2G, 3C | 2G, 2C | 2G, 2C | 2G, 2C | 2G, 2C |

*Notes:*

*-- = no samples taken*

*C = composite sample*

*G = grab sample*

*[1] Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

# Section 3: Storm Event Summary

The December 14, 2024, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from December 14, 2024, is included in Attachment A for reference.

**Friday, December 13, 2024 (Sampling Event Communication & Set Up)**

- On the morning of December 13, the National Weather Service issued a forecast for widespread rain in the Boise area, starting December 13 at 2000 and ending on December 14 at 0600. The chance of

precipitation was 100%, with 80% projected to be more than 0.1 inches over 12 hours. The forecasted precipitation for this event was 0.5 to 0.75 inches.

- Setup was accomplished on the afternoon of December 13. An expected precipitation depth of 0.11 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

**Saturday, December 14, 2024 (Storm Event)**

- The runoff started approximately on December 14 at 0040 and ended on December 14 at 1549.
- Precipitation totals ranged between 0.19 and 0.26 inches at local rain gauges.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Whitewater, Main, Americana and AS_6 sites showing flow, rain, and sample collection data are included in Attachment B. A hyetograph of Lucky presenting rain and sample collection are also included in Attachment B.

## 3.2 Sampling Summary

Lucky, Whitewater, Main, Americana and AS_6 monitoring stations were set up on December 13, 2024, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Lucky, Whitewater, Main, Americana and AS_6 flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Grab Samples

Two, two-member teams mobilized to collect stormwater runoff grab samples and verify operation of the automatic sampling equipment on December 14 around 0130. Grab samples for Lucky, Whitewater, Main, Americana, AS_6 were submitted to the Boise City Public Works Water Quality Laboratory (WQL) at 0400 on December 14. Results for grab samples, including field parameter and analytical data, are included in Table 2. Laboratory analytical reports are included in Attachment D.

### Composite Samples

Composite samples were collected at the Whitewater, Main, Americana and AS_6 monitoring stations and submitted to the WQL at 1246 on December 14. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

A summary of quality control samples collected during the December 14, 2024, storm event is presented below in Table 4-1. A field blank and a field duplicate were collected from the Americana monitoring station. The analytical results for these samples are included in Table 4-1.

**Table 4-1. Quality Control Samples**

| Sample ID | Sample Type | Parent Sample | Conclusions |
|---|---|---|---|
| 241214-14-001 | Field blank | Americana grab | No *E. coli* detection was reported in the field blank. |
| 241214-14-101 | Field duplicate | Americana grab | Relative percent difference was within the acceptable range. |

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A. An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. All composite samples collected met the criteria.

# Section 5: Notes and Recommendations

### Lucky

The area-velocity sensor at Lucky was installed backwards during fall maintenance. This resulted in negative flow and velocity readings, and no composite subsamples collected.

### Whitewater

Two “Skipped” sample messages were recorded during the composite sample collection at Whitewater. These sample messages appear when the sampling team pauses the sampler program, stopping it from collecting the next subsample. The “Skipped” sample messages do not affect the sampling data nor is shown on the hydrograph.

The sampling team discovered the automatic sampler's date and time was not synchronized with the flowmeter. This resulted in incorrect subsample times displayed on the sampler. The team recorded composite subsample times for the first bottle (23 samples) as-is, and then restarted the program for the second bottle with the correct date and time. The data imported to the database, DataSight, has the corrected date and time for the first sample bottle.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main | Americana | AS_6 |
| Grab samples collected and submitted? | YES | YES | YES | YES | YES |
| Composite samples collected and submitted? | NO | YES | YES | YES | YES |
| Trigger volume ($ft^3$) | 2,895 gal | 801 cf | 456 cf | 2,960 cf | 1,646 gal |
| Sampler enable condition (in) or Velocity cutoff (fps) | Level > 2.11" | Level > 2.9" | Level > 1.74" | Level > 5.5" | Level > 1.03" |
| Deadband/ Hysteresis (in) | 1.0" | 1.0" | 1.0" | 1.0" | 1.0" |
| Runoff start time | -- | 0121 | 0055 | 0040 | 0143 |
| Grab sample collection time | 0148 | 0216 | 0205 | 0228 | 0259 |
| Composite sample stop time | -- | 1010 | 0851 | 1018 | 1033 |
| Runoff stop time | -- | 1549 | 1107 | 1230 | 1118 |
| Volume of discharge sampled ($ft^3$) | -- | 35,204 | 6,853 | 112,666 | 11,227 |
| Total runoff volume ($ft^3$) | -- | 41,608 | 7,419 | 126,267 | 12,292 |
| Percent of storm flow sampled (%) | -- | 85% | 92% | 89% | 91% |
| Composite sample duration (hrs) | -- | 8 | 7 | 8.5 | 7.5 |
| Storm Precipitation (in) | 0.21 | 0.23 | 0.19 | 0.19/0.26 | 0.19/0.26 |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | -- | 45 | 16 | 40 | 50 |
| : Sample skipped | -- | 2 | -- | -- | -- |
| Number of composite bottles filled | -- | 2 | 1 | 2 | 3 |
| Composite sample volume (Approx.; ml) | -- | 25,000 mL | 9,500 mL | 23,500 mL | 39,650 mL |

Notes:

-- No data.

**Table 2. Field and Analytical Data Summary**

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | mpn/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Lucky | 12/14/2024 | 241214-03-WG | 10.37 | 8.96 | 107.63 | 6.96 | 648.8 | 241214-03-WC | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] | --[1] |
| Whitewater | 12/14/2024 | 241214-11-WG | 9.10 | 8.07 | 912.49 | 7.09 | 920.8 | 241214-11-WC | 21.6 | 94.0 | 100 | 74.9 | 23.5 | 32.2 | 271 | 0.535 | 0.358 | 0.222 | 0.445 | 1.36 | 2.2 | <0.0100 | 0.045 | 2.4 | 0.22 | 2.6 | <0.0100 | 17.3 |
| Main | 12/14/2024 | 241214-12-WG | 10.95 | 7.94 | 485.43 | 6.56 | 261.3 | 241214-12-WC | 9.48 | 66.0 | 50.5 | 25.6 | 28.3 | 30.5 | 124 | 0.155 | 0.0859 | 0.615 | 0.247 | 1.31 | 0.90 | 0.018 | 0.058 | 3.5 | 0.14 | 3.3 | <0.0100 | 31.0 |
| Americana | 12/14/2024 | 241214-14-WG | 10.69 | 7.60 | 596.06 | 7.48 | 517.2 | 241214-14-WC | 14.8 | 75.0 | 150 | 107 | 31.8 | 42.3 | 360 | 0.347 | 0.212 | 0.251 | 0.778 | 1.17 | 3.4 | 0.034 | 0.091 | 3.2 | 0.15 | 3.8 | 0.0119 | 24.3 |
| AS_6 | 12/14/2024 | 241214-206-WG | 10.49 | 7.73 | 533.81 | 5.16 | 1,299.7 | 241214-206-WC | 34.9 | 171 | 94.0 | 35.3 | 49.4 | 43.5 | 267 | 0.934 | 0.668 | 0.119 | 0.0960 | 1.74 | 2.2 | 0.019 | 0.069 | 4.7 | 0.59 | 4.5 | <0.0100 | 26.7 |

Notes:

-- No data.

[1] Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Lucky | 12/14/2024 | -- | -- | -- | -- | -- |
| Whitewater | 12/14/2024 | 83.6 | 1.39 | 0.576 | 1.16 | 3.53 |
| Main | 12/14/2024 | 14.1 | 0.0718 | 0.285 | 0.114 | 0.607 |
| Americana | 12/14/2024 | 333 | 2.73 | 1.98 | 6.13 | 9.22 |
| AS_6 | 12/14/2024 | 33.4 | 0.717 | 0.0913 | 0.0736 | 1.33 |

Notes:

-- No data.

| Table 4. QC Sample Summary | | | | |
|---|---|---|---|---|
| Date | Parent Sample | Sample ID | Type | E. coli |
| | | | | mpn/100 mL |
| 12/14/2024 | 241214-14-WG | 241214-14-001 | Field Blank | <1.0 |
| 12/14/2024 | 241214-14-WG | 241214-14-101 | Field Duplicate | 727.0 |
| Calculated parent/duplicate RPD | | | | 4% |
| Allowable RPD | | | | 40% |

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 12/13/2024 | Time: 8:00 AM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | Yes |

| | |
|---|---|
| Past 72 hr Precip | 0.04"at Airport |
| Date and time of expected event | Starting between 8:00 pm and 10:00 pm on 12/13/24 |
| Expected amount of precipitation | 0.5-0.75" |
| Percent chance of precipitation | 100% |
| Percent chance of >0.10" over 12 hours | 80% from 4:00 pm – 4:00 am. |

NWS Update

Spoke with Dave from NWS. Consistent rain is expected to start between 8:00 – 10:00 pm on 12/13/24 and continuing through 3:00 – 6:00 am on 12/14/24. 0.14" of rain is expected during this overnight period. The intensity of the rain will slow in the morning until 11:00 am – 1:00 pm and then 0.25" more until the evening.

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☐ Grab |
| ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☒ Light Rain | ☒ Rain | ☐ Rain on Snow |
| ☐ Scattered Showers | ☐ Thunder Showers | ☐ Snowmelt |
| ☐ Other: | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☐ Waiting on Antecedent Dry Period – Expires:
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: 2 Miles WSW Garden City ID

Issued by: National Weather Service Boise, ID

4:05 am MST Dec 13, 2024

Air Stagnation Advisory until Dec 13, 2:00 PM MST

Today: A 30 percent chance of rain before 11am. Patchy fog before 11am. Otherwise, mostly cloudy, with a high near 42. Southeast wind 3 to 7 mph.

Tonight: Rain. Low around 39. East southeast wind 8 to 15 mph. Chance of precipitation is 100%. New precipitation amounts between a tenth and quarter of an inch possible.

Saturday: Rain. High near 46. Southeast wind 14 to 16 mph. Chance of precipitation is 100%. New precipitation amounts between a quarter and half of an inch possible.

Saturday Night: Rain. Low around 30. Southeast wind 6 to 13 mph becoming west after midnight. Chance of precipitation is 90%. New precipitation amounts between a tenth and quarter of an inch possible.

Sunday: Mostly sunny, with a high near 42. West northwest wind around 6 mph becoming calm.

Sunday Night: Mostly cloudy, with a low around 27.

Monday: A 50 percent chance of snow, mainly after 11am. Cloudy, with a high near 39. Little or no snow accumulation expected.

Monday Night: Rain and snow likely, mainly before 11pm. Cloudy, with a low around 29. Chance of precipitation is 70%.

Tuesday: A slight chance of rain and snow before 11am. Mostly cloudy, with a high near 38. Chance of precipitation is 20%.

Tuesday Night: Mostly cloudy, with a low around 26.

Wednesday: Partly sunny, with a high near 39.

Wednesday Night: Mostly cloudy, with a low around 25.

Thursday: Partly sunny, with a high near 37.

Forecast Discussion

Area Forecast Discussion

National Weather Service Boise ID
409 AM MST Fri Dec 13 2024

.SHORT TERM...Today through Sunday night...The remnants of an upper-level trough will continue moving east this morning, bringing light precipitation to southwest Idaho. Reports indicate primarily light freezing rain from Caldwell through Boise, with occasional snow mixed in. Ontario has seen mainly light snow, with minor accumulations observed on area webcams. Light snow has also been reported in the Western Magic Valley, but accumulations there have been minimal. Valley precipitation is expected to end by 4 AM, though it will persist until about 9 AM in the central mountains. Commuters should exercise caution this morning due to patchy ice and snow on side streets and sidewalks.

**A stronger and warmer system will approach the coast today, bringing widespread precipitation starting this evening.** Increasing winds aloft this afternoon will help erode the inversion across most areas, with the Lower Treasure Valley likely being the last to clear.

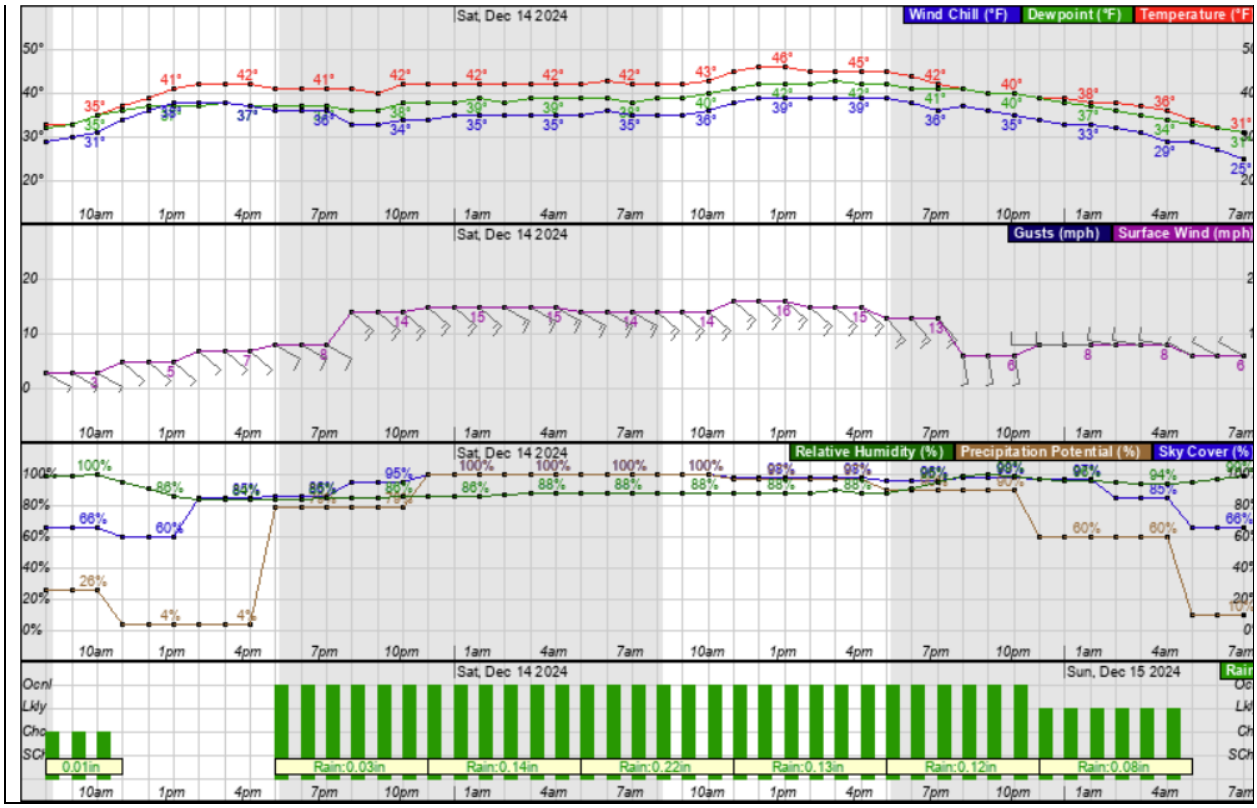
Precipitation will begin with a warm front moving southwest to northeast this evening. Snow levels are expected to rise overnight and through Saturday, potentially limiting snowfall in mountain valleys below 5,500 feet. Latest forecasts suggest significantly warmer temperatures, resulting in less snow accumulation in these areas. Current ensemble models predict 10-18 inches of snow above 7,000 feet from Friday night through Sunday morning. However, snowfall in mountain valleys below 5,500 feet remains uncertain, with totals ranging from 2 to 13 inches. Warmer temperatures could lead to snow mixing with or

changing to rain Saturday afternoon, further reducing accumulations. Current estimates for Long Valley snowfall are 4 to 6 inches from Saturday into Sunday. The Winter Weather Watch remains in effect due to uncertainties in snow amounts for the mountain valleys. However, impacts for populated areas below 5,500 feet look to be minimal.

**In the lower valley, precipitation will fall entirely as rain, with totals ranging from 0.50 to 0.75 inches through Sunday morning.** Temperatures will climb to the mid 40s on Saturday before returning to seasonal norms after the trough exits the region early Sunday.

LONG TERM...Monday through Friday...An upper level ridge will build over the area Monday morning, but will quickly shift eastward as a trough arrives late Monday morning. The warm frontal precipitation will spread into southeast OR and southwest ID late morning and afternoon, with rain/snow chances increasing to 50-80 percent by the afternoon. Mid-level southwesterly winds will also increase Monday, which will enhance valley shadowing effects with the initial precipitation onset. Temperature inversions should begin to erode in larger valleys with the development of breezy surface winds, and snow levels are forecast to climb to 3k-4k feet MSL for most areas during the day. The exception will be over northeast OR and w-central ID due to the proximity of the cold low center, in which snow levels will remain at valley floors. As the trough progresses eastward Monday night, both the upper level and surface winds will transition to west/northwest. This will alleviate some of the valley shadowing effects for the Snake Plain, while shower chances of 30-60 percent continue Mon night/early Tue. The colder northwest flow and nighttime temperatures will lower snow levels back down to 2500-3500 feet MSL. Overall, mountains are expected to see several inches of snowfall Monday afternoon through Tuesday morning period, while valleys could see light snow accumulations during favorable flow. Showers will taper off Tuesday as an upper level ridge builds into the region from the west. While daytime temperatures are forecast to be near-normal for the beginning of the week, strengthening inversions will create colder valley temperatures and air stagnation concerns after Tuesday.

Hourly Forecast


Sat, Dec 14 2024
Wind Chill (°F)
Dewpoint (°F)
Temperature (°F
Gusts (mph)
Surface Wind (mph)
Relative Humidity (%)
Precipitation Potential (%)
Sky Cover (%
Sun, Dec 15 2024
Ocnl
Lkly
Chc
Sch
0.01in
Rain:0.03in
Rain:0.14in
Rain:0.22in
Rain:0.13in
Rain:0.12in
Rain:0.08in
10am
1pm
4pm
7pm
10pm
1am
4am
7am

# Storm Event QA/QC Checklist – Phase I

**STORM DATE** 12/14/2024

| A. Event and Data Completeness | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | Whitewater FM + SA clocks weren't synced during setup. |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | |
| 5. Inconsistencies/clarifications discussed with sampling team member | | | X | |
| 6. All analytical reports from lab received | X | | | |

| B. Validation and Verification Methods | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | | | | |
| 5. Data quality objective achieved | X | | | |

| C. Specific Storm and Sample QA/QC Criteria | Lucky | Whitewater | Main | Americana | AS_6 | Program Criteria | Met | Qualify | Reject |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | 0.07 | 0.10 | 0.10 | 0.10/0.07 | 0.10/0.07 | < 0.11" in 72 hrs | X | | |
| 2. Precipitation (inches) | 0.21 | 0.23 | 0.19 | 0.19/0.26 | 0.19/0.26 | > 0.10" | X | | |
| 3. Sampled amount (% of total run-off) | – | 85% | 92% | 89% | 91% | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | X | | |
| 4. Composite sample duration (hours) | – | 8 | 7 | 8.5 | 7.5 | | | | |
| 4. Ecoli sample holding time (hours) | 6.5 | 6 | 6.5 | 6 | 5.5 | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | X | | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | – | 4 | 6 | 3 | 4 | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

Lucky – AV sensor installed backwards, resulting in negative flow & velocity values. No composite subsamples were taken.

**Reviewed by** Steven Turner **Date** 1/17/2025

**Approved by** Monica Lowe **Date** 1/22/25

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

Expected Precipitation Depth = 0.11
Aliquots per Sample = 17

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 6582.5 | **387** |
| Whitewater | 498 | 0.069 | 13621.3 | **801** |
| Main | 79 | 0.246 | 7760.0 | **456** |
| Main Alt | 60 | 0.200 | 4791.6 | **282** |
| Americana | 875 | 0.144 | 50311.8 | **2960** |
| Americana Alt | 869 | 0.144 | 49966.8 | **2939** |
| AS_6 | 204 | 0.046 | 3747.0 | **220** |
| State | 34 | 0.127 | 1724.2 | **101** |

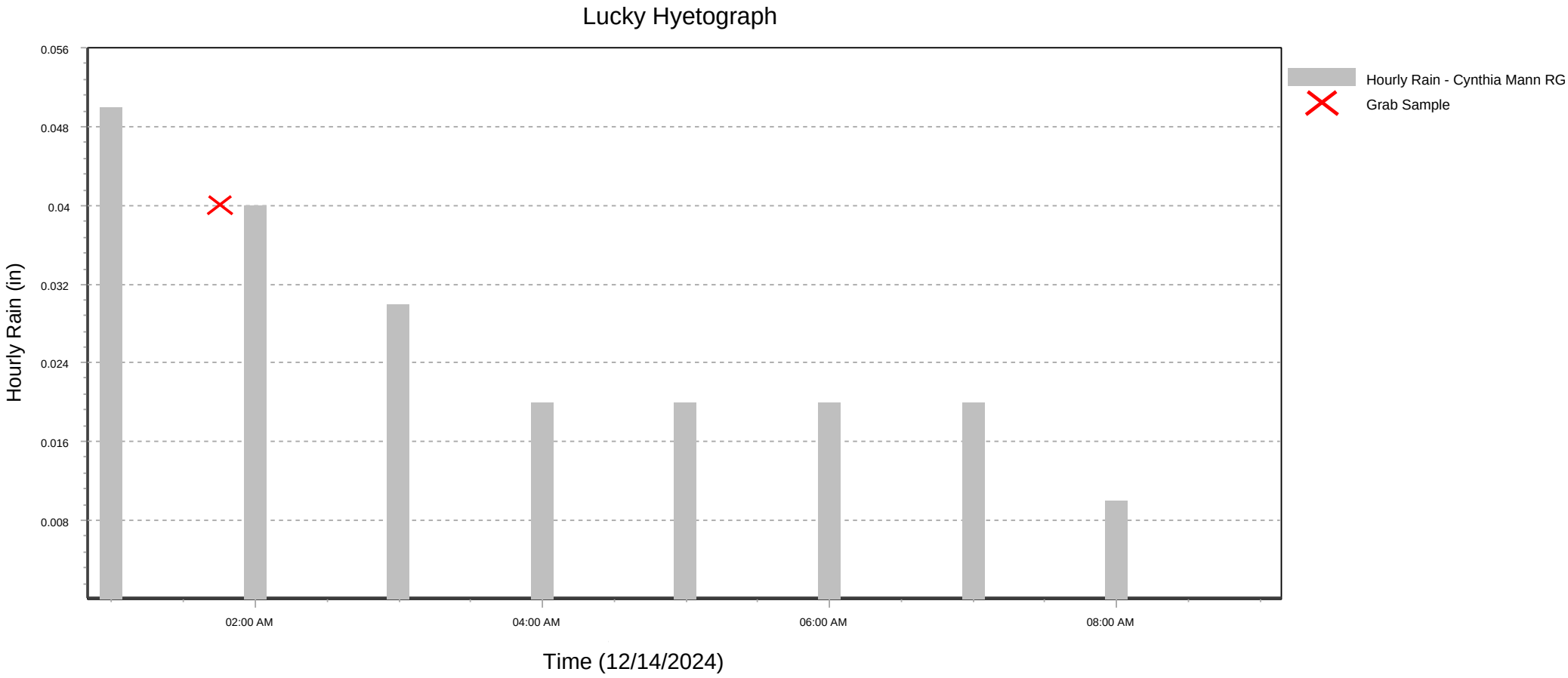
Notes:

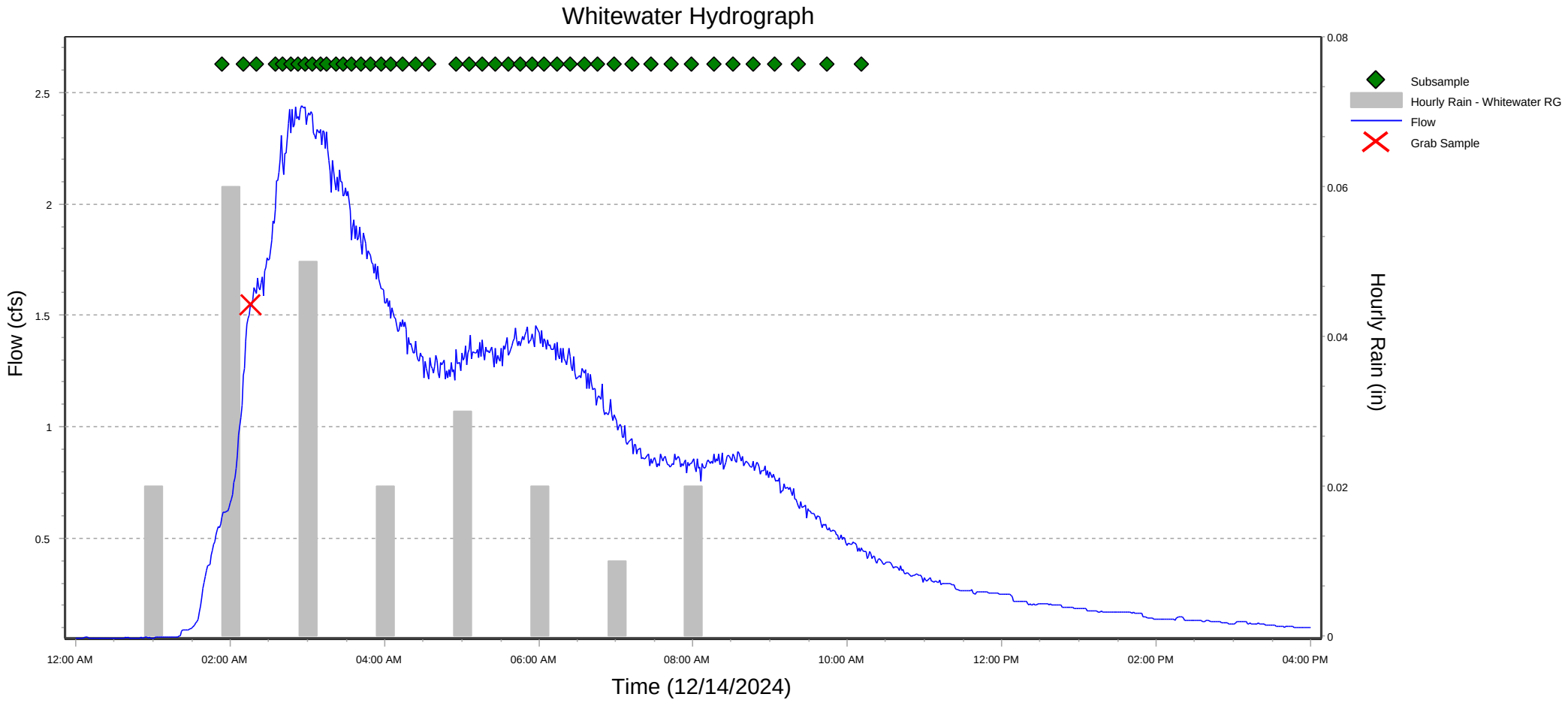
Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

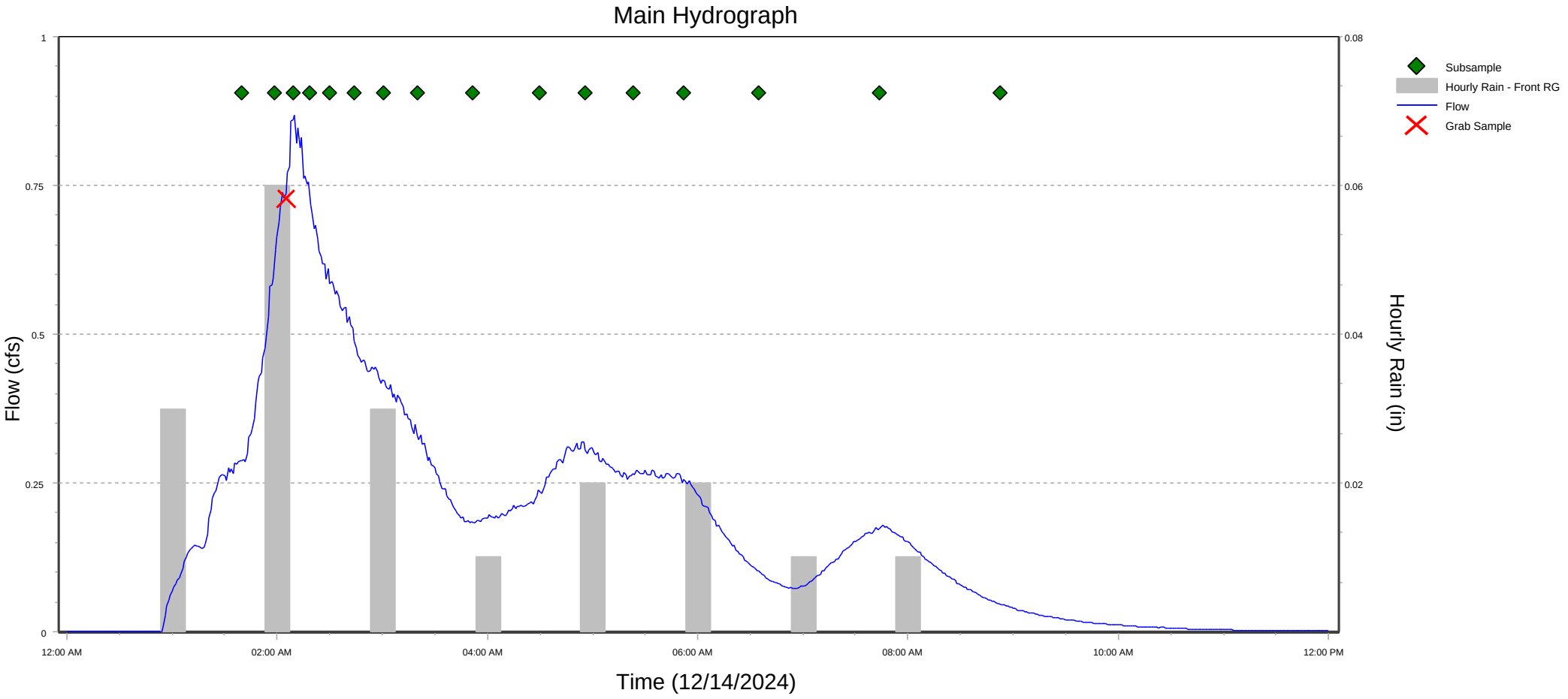
Where precip (ft) is the measured amount from local rain guage, and volume ($ft^3$) is the measured discharge, and area ($ft^2$) is the watershed area

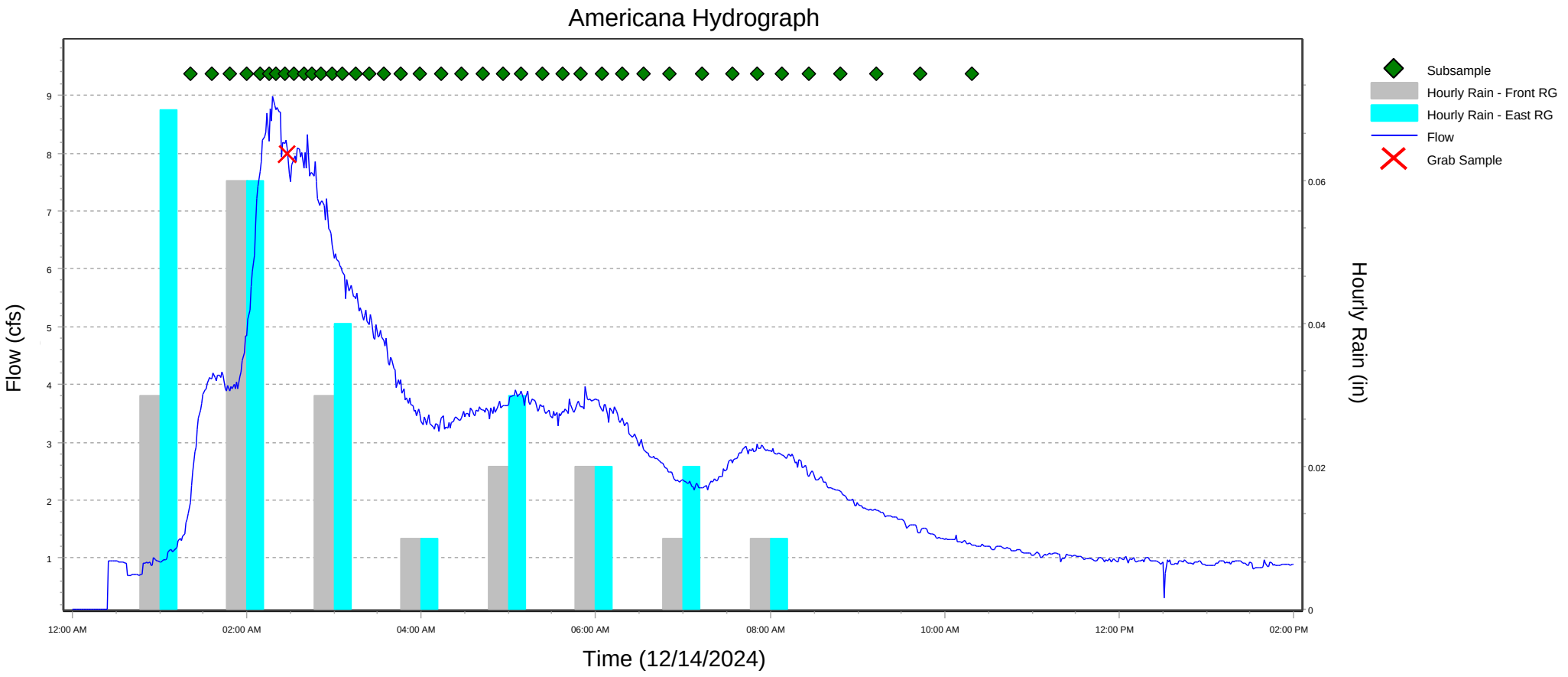
Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

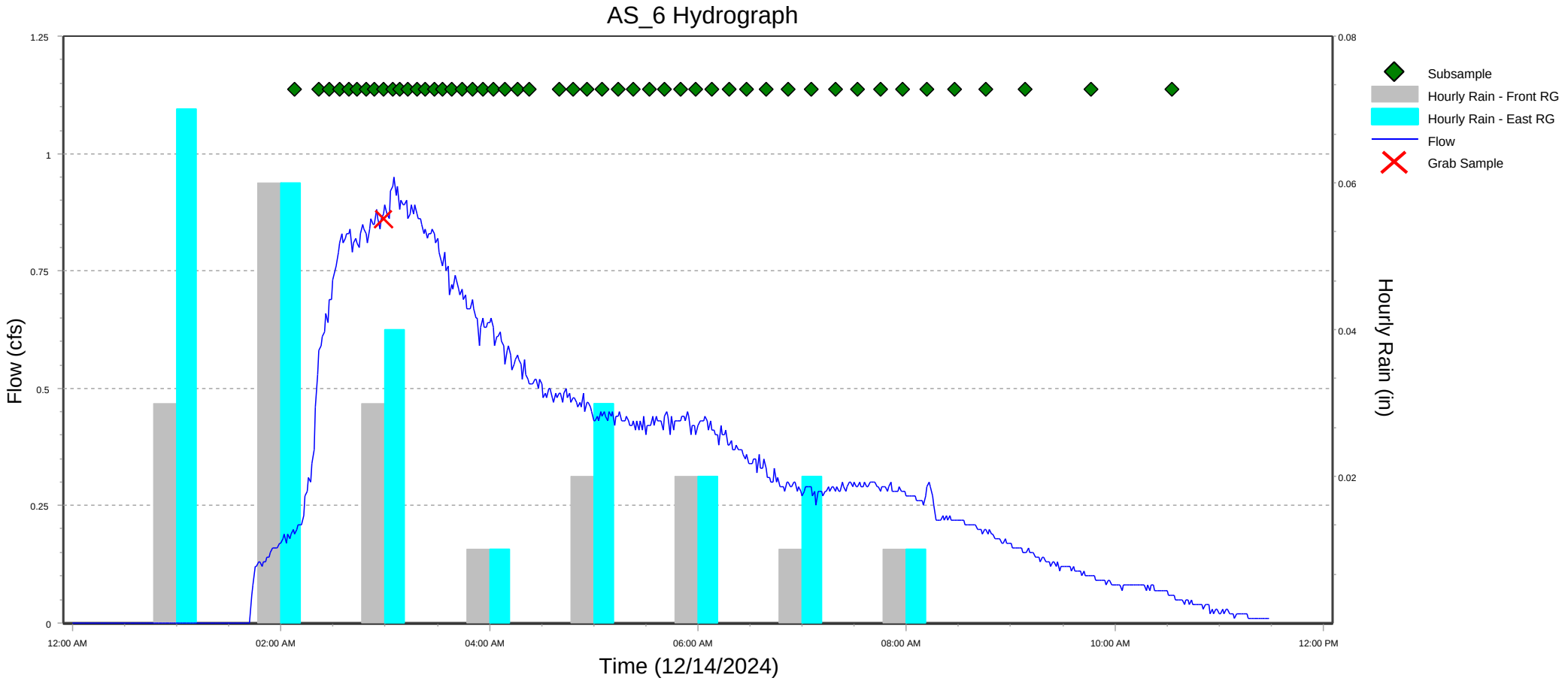
# Attachment B: Storm Event Graphs


Lucky Hyetograph
0.056
0.048
0.04
0.032
0.024
0.016
0.008
Hourly Rain (in)
02:00 AM
04:00 AM
06:00 AM
08:00 AM
Time (12/14/2024)
Hourly Rain - Cynthia Mann RG
Grab Sample


Whitewater Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (12/14/2024)
2.5
2
1.5
1
0.5
0.08
0.06
0.04
0.02
0
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
12:00 PM
02:00 PM
04:00 PM
Subsample
Hourly Rain - Whitewater RG
Flow
Grab Sample


Main Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (12/14/2024)
1
0.75
0.5
0.25
0
0.08
0.06
0.04
0.02
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
12:00 PM
Subsample
Hourly Rain - Front RG
Flow
Grab Sample


Americana Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (12/14/2024)
Subsample
Hourly Rain - Front RG
Hourly Rain - East RG
Flow
Grab Sample
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
12:00 PM
02:00 PM


AS_6 Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (12/14/2024)
1.25
1
0.75
0.5
0.25
0
0.08
0.06
0.04
0.02
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
12:00 PM
Subsample
Hourly Rain - Front RG
Hourly Rain - East RG
Flow
Grab Sample

# Attachment C: Field Forms

# Grab Sample Data Form

**STATION:** Lucky

**Personnel:** ST, PD **Date/Time On-Site:** 12/14/24 1:30 AM

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 1:48 | 5.07 | -29.61 GPM | -1.18 | 12.7 | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 241214-02 -WG | 12/14/2024 | 1:48 | ☒ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP13 | 1:53 | 6.96 | 10.37 | 8.96 | 107.63 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

# Grab Sample Data Form

**STATION:** Whitewater

**Personnel:** PB, ST **Date/Time On-Site:** 12/14/24 2:13

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 2:13 | 4.99 | 1.48 | 1.59 | — | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 24124-11 -WG | 12/14/24 | 2:16AM | ☒ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP13 | 2:23 | 7.09 | 9.10 | 8.07 | 912.49 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 1/1 21:00 |
| Last Subsample Date/Time | 1/1 21:26 |
| # of Subsamples taken | 3 |

**Comments:** Wrong date. Month and day were not set on sampler. The correct subsample times are logged on the flowmeter and will be imported to DataSight.

# Grab Sample Data Form

**STATION:** Main

**Personnel:** K-C WB **Date/Time On-Site:** 12/14/24 1:33

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 1:38 | 4.554 | 0.28 | 1.07 | 12.6 | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 241214-12 -WG | 12-14-24 | ~~1:49~~ 2:15 | ☑ |
| Field Duplicate *E.Coli* | 241214-12 -101 | 12-14-24 | 1:54 | ☑ |
| Field Blank *E.Coli* | 241214-12 -001 | 12-14-24 | 1:56 | ☑ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP14 | 1:56 | 6.56 | 10.95 | 7.94 | 485.43 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 12/14/24 1:39 |
| Last Subsample Date/Time | |
| # of Subsamples taken | 1 |

**Comments:**

~~QC Duplicate + Blank were dumped.~~ ST

Alternate site QC samples discarded due to successful collection of samples at primary QC site (Americana).

# Grab Sample Data Form

**STATION:** Americana

**Personnel:** KC, WB **Date/Time On-Site:** 12/14/24 2:20

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 2:20 | 11.59 | 9.33 | 3.923 | 12.03 | | — |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 241214 - 14 -WG | 12/14/24 | 2:28 | ☑ |
| Field Duplicate *E.Coli* | 241214 - 14 -101 | 12/14/24 | 2:30 | ☑ |
| Field Blank *E.Coli* | 241214 - 14 -001 | 12/14/24 | 2:38 | ☑ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP14 | 2:38 | 7.48 | 10.69 | 7.60 | 596.06 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 12/14/24 1:20 |
| Last Subsample Date/Time | 12/14/24 219 |
| # of Subsamples taken | 7 |

**Comments:**

# Grab Sample Data Form

**STATION:** AS-6

**Personnel:** ST, PB **Date/Time On-Site:** 12/14/24 2142

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 2:45 | 4.72 | 362.84 gpm | 1.64 | 12.5 | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 241214-206WG | 12/14/24 | 2:59 | ☐ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP13 | 2:55 | 5.16 | 10.49 | 7.73 | 533.81 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | 12/14/24 304 |
| # of Subsamples taken | 10 |

**Comments:**

# Set Up/ Shut Down Form – HACH (Lucky, ~~Main~~, AS_6)

**STATION:** Lucky

## SET UP

**Personnel:** ST, KC

**Date/Time On-Site:** 12/13/24 12:09

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 12:17 | 1.11 | -0.86 gpm | -0.07 | 12.8 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 2.11 in |
| **Deadband:** | 1.0 in |
| **Trigger Volume:** | 2895 gal |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:** Changed desiccant on ST Sampler

**Date/Time Off-Site:** 12/13/24 12:37

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 12/16/24 10:37

| Time | Level (in) | Flow ~~(cfs)~~ GPM | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 10140 | 2.98 | -92.76 | -0.82 | - | 12.5 |
| **Downloaded to:** | | Stevens U53 (green) | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| [x] Halt program on flowmeter | [ ] Replace flowmeter battery |
| [x] Download flowmeter data | [ ] Reset logging interval to 15 minutes |
| [x] Remove flowmeter battery | [ ] Change velocity cutoff to 0.02 fps |
| | [ ] Start program |
| | [ ] Verify running |

**Comments:** AV sensor was installed backwards, resulting in negative flow and velocity values. No composite subsamples were taken.

**Date/Time Off-Site:** 12/16/24 10:58

Revised 240123 KC

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State, and Main)

**TATION:** Whitewater

## SET UP

**Personnel:** ST, KC

**Date/Time On-Site:** 12/13/24 12:50

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 12:51 | 1.91 | 0.06 | 0.29 | — |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 2.9 in |
| **Hysteresis:** | 1" |
| **Flow Pulse Interval:** | 801 cf |

**On-Site**
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 12/13 13:00
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

offsite 12/13/24 13:17

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 12/16/24 11:09

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:12 | 4.36 | 1.01 | 1.32 | — |
| | **Downloaded to:** | Stevens green WSB | | |
| | | | | |

**On-Site**
- ☒ ~~Replace flowmeter battery~~
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- ☒ Direct or Remote; Date/time 12/16 11:10
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

offsite: 12/16/24 11:28

# Composite Sample Collection

**STATION:** Whitewater
**Personnel:** SF, PB
**Bottle** 1 **of** 2
**Date/Time On-Site:** 12/14/24 2:13

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214 - 11 -WC |
| **Approx Sample Volume (mL):** | 11750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/1/24 2:00 | Success | 13 | 22:28 | |
| 2 | 21:17 | | 14 | 22:34 | |
| 3 | 21:26 | | 15 | 22:41 | |
| 4 | 21:34 | Sample skipped | 16 | 22:48 | |
| 5 | 21:41 | Success | 17 | 22:55 | |
| 6 | 21:47 | | 18 | 23:03 | |
| 7 | 21:53 | | 19 | 23:11 | |
| 8 | 21:59 | | 20 | 23:20 | |
| 9 | 22:04 | | 21 | 23:30 | |
| 10 | 22:10 | | 22 | 23:40 | |
| 11 | 22:16 | | 23 | 23:51 | Sample skipped |
| 12 | 22:21 | | 24 | | |

**Comments:** Sampler Date wasn't set, Real time is 2:30, Sampler says 21:36 Composite pulled at 23 sub-samples, New bottle put on, Program restarted. The correct dates and times are imported into Data Sight.

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 2 **of** 2

**Personnel:** ST, KC **Date/Time On-Site:** 12/14/24 9:50

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214 - 11 -WC |
| **Approx Sample Volume (mL):** | 13,250 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/14 454 | Success | 13 | 12/14 658 | Success |
| 2 | 505 | | 14 | 711 | |
| 3 | 514 | | 15 | 726 | |
| 4 | 525 | | 16 | 742 | |
| 5 | 535 | | 17 | 758 | |
| 6 | 544 | | 18 | 814 | |
| 7 | 554 | | 19 | 830 | |
| 8 | 603 | | 20 | 846 | |
| 9 | 613 | | 21 | 902 | |
| 10 | 623 | | 22 | 921 | |
| 11 | 634 | | 23 | 943 | |
| 12 | 645 | | 24 | 10:10 | |

**Comments:** The date and time was changed ~~by~~ ST before installing bottle 2. All subsample dates + times on this bottle are accurate.

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter<br>☒ Keep flowmeter running<br>☒ Add ice to sample transport cooler | ☐ Keep flowmeter running<br>☐ Install new 15L bottle; add ice<br>☐ Restart program from beginning<br>**Date/Time Restarted:** _____<br>☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State, Main)

**TATION:** Main

## SET UP

**Personnel:** ST, IC

**Date/Time On-Site:** 12/13/24 1403

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 14:10 | 0.746 | 0.00 | 0.00 | |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 1.74 in |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | ~~465,984~~ 456cf ST |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☐ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time _____
- ☐ ~~Retrieve data and~~ review recent flow history
- ☐ ~~Change Wireless Power Control to Storm Event~~
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 12/16/24 11:33

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:34 | 5.774 | 0.51 | 1.35 | |
| **Downloaded to:** | | Stevens green USB | | |
| | | | | |

**On-Site**

- ☐ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 12/16 11:34
- ☒ Retrieve data
- ☐ ~~Change Wireless Power Control to Dry Weather~~
- ☐ ~~Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate~~
- ☒ Enable Sampler: Never

**Comments:**

Off site at 11:40

Revised 231009 ML

# Composite Sample Collection

**STATION:** Main **Bottle** 1 **of** 1

**Personnel:** ST, KC **Date/Time On-Site:** 12/14 11:39

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214 - N2 -WC |
| **Approx Sample Volume (mL):** | 9500 |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1:39 12/14 | Success | 13 | 5:51 | |
| 2 | 1:57 | | 14 | 6:33 ~~5:33~~ ST | |
| 3 | 2:08 | | 15 | 7:42 | |
| 4 | 2:17 | | 16 | 8:51 | |
| 5 | 2:29 | | 17 | | |
| 6 | 2:42 | | 18 | | |
| 7 | 2:59 | | 19 | | |
| 8 | 3:19 | | 20 | | |
| 9 | 3:50 | | 21 | | |
| 10 | 4:28 | | 22 | | |
| 11 | 4:55 | | 23 | | |
| 12 | 5:22 | | 24 | | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ~~☐ Keep flowmeter running~~ | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State and Main)

**ATION:** Americana

## SET UP

**Personnel:** ST, KC

**Date/Time On-Site:** 12/13/24 14:30

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1430 | 4.00 | 0.11 | 0.209 | 12.09 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 5.5 in |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 7960 cf |

**On-Site**
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 12/13 14:33
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 12/13/24 14:47

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 12/16/24 11:45

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:45 | 7.969 | 3.922 | 2.875 | 11.75 |
| **Downloaded to:** | | Desktop | | |
| | | | | |

**On-Site**
- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- ☒ Direct or (Remote) Date/time 12/16/24 8:49
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 12/16/24 11:50

Revised 240123 KC

# Composite Sample Collection

**STATION:** Americana **Bottle** 1 **of** 2

**Personnel:** KC, WB **Date/Time On-Site:** _____

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 241214 - 14 | -WC |
| **Approx Sample Volume (mL):** | 14000 | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/11/24 1:20 | Success | 13 | 2:58 | |
| 2 | 1:35 | | 14 | 3:05 | |
| 3 | 1:47 | | 15 | 3:14 | |
| 4 | 1:59 | | 16 | 3:23 | |
| 5 | 2:08 | | 17 | 3:33 | |
| 6 | 2:14 | | 18 | 3:45 | |
| 7 | 2:19 | | 19 | 3:58 | |
| 8 | 2:25 | | 20 | 4:13 | |
| 9 | 2:31 | | 21 | 4:27 | |
| 10 | 2:38 | | 22 | 4:41 | |
| 11 | 2:44 | | 23 | 4:55 | |
| 12 | 2:50 | | 24 | 5:08 | |

**Comments:**

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 12/14 5:10 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 2 **of** 2

**Personnel:** ST, KC **Date/Time On-Site:** _____

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214 - 14 -WC |
| **Approx Sample Volume (mL):** | 9,500mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/14 522 | Success | 13 | 847 | |
| 2 | 536 | | 14 | 912 | |
| 3 | 549 | | 15 | 942 | |
| 4 | 603 | | 16 | 10:18 | |
| 5 | 617 | | 17 | | |
| 6 | 632 | | 18 | | |
| 7 | 650 | | 19 | | |
| 8 | 7:12 | | 20 | | |
| 9 | 733 | | 21 | | |
| 10 | 750 | | 22 | | |
| 11 | 807 | | 23 | | |
| 12 | 826 | | 24 | | |

**Comments:**

**If sampling is complete:**
- ☒ Power off sampler, if separate from flowmeter
- ☒ Keep flowmeter running
- ☒ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☐ Keep flowmeter running
- ☐ Install new 15L bottle; add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – HACH (Lucky, Main, AS_6)

**STATION:** AS_6

## SET UP

**Personnel:** ST, KC

**Date/Time On-Site:** 12/13/24 15:03

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 15:16 | 0.03 | 0.00 | 0.00 | 12.7 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 1.03 in |
| **Deadband:** | 1 |
| **Trigger Volume:** | 1646 gal |

- ☒ Install batteries on flowmeter and sampler
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Verify all cable and tubing connections
- ☒ Check date and time on flowmeter and sampler
- ☒ Set flowmeter program and sampler program parameters
- ☒ Set logging interval to 1 minute
- ☒ Start flowmeter program and sampler program
- ☒ Verify running

**Comments:** offsite at 15:20

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** ~~12/16/24~~ ST 12/16/24 12:50

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 12:57 | 4.01 | 0.58 | 1.48 | – | 12.7 |
| **Downloaded to:** | | Stevens ~~Green~~ USB 3.1v2 | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| ☒ Halt program on flowmeter | ☐ Replace flowmeter battery |
| ☒ Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| ☒ Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

# Composite Sample Collection

**STATION:** AS_6 **Bottle** 1 **of** 3

**Personnel:** KC, WB **Date/Time On-Site:** _____

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214-206-WC -WC |
| **Approx Sample Volume (mL):** | 2075ml |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy/silty |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/14/24 2:08 | Success | 13 | 3:18 | |
| 2 | 2:22 | | 14 | 3:23 | |
| 3 | 2:28 | | 15 | 3:28 | |
| 4 | 2:34 | | 16 | 3:33 | |
| 5 | 2:39 | | 17 | 3:38 | |
| 6 | 2:44 | | 18 | 3:44 | |
| 7 | 2:49 | | 19 | 3:50 | |
| 8 | 2:54 | | 20 | 3:56 | |
| 9 | 2:59 | | 21 | 4:02 | |
| 10 | 3:04 | | 22 | 4:09 | |
| 11 | 3:08 | | 23 | 4:16 | |
| 12 | 3:13 | | 24 | 4:23 | |

**Comments:**

**If sampling is complete:**
- ☒ Power off sampler, if separate from flowmeter
- ☒ Keep flowmeter running
- ☒ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☐ Keep flowmeter running
- ☐ Install new 15L bottle, add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS_6 **Bottle** 2 **of** 3

**Personnel:** KC, ST **Date/Time On-Site:** _____

| | |
|---|---|
| ☐ Halt Sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 241214-206 -WC |
| **Approx Sample Volume (mL):** | 18500 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Sampler Message/ Subsample Result | Trigger # | Date/Time | Sampler Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/14/24 440 | Success | 13 | 628 | Success |
| 2 | 448 | | 14 | 639 | |
| 3 | 456 | | 15 | 652 | |
| 4 | 505 | | 16 | 705 | |
| 5 | 514 | | 17 | 719 | |
| 6 | 523 | | 18 | 732 | |
| 7 | 532 | | 19 | 745 | |
| 8 | 541 | | 20 | 758 | |
| 9 | 550 | | 21 | 812 | |
| 10 | 559 | | 22 | 828 | |
| 11 | 608 | | 23 | 846 | |
| 12 | 618 | | 24 | ✓ 0908 | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler | ☒ Keep flowmeter running |
| ☐ Verify flowmeter is running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| ☐ Complete COC form; arrange transport to lab | **Date/Time Restarted:** 12/14/24 0911 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | ~~11.5"~~ | ~~16250 mL~~ |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Composite Sample Collection

**STATION:** AS 6 **Bottle** 3 **of** 3

**Personnel:** ST. Ice **Date/Time On-Site:** 12/14 11:27

| | | |
|---|---|---|
| ☒ Halt Sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 241214-206 | -WC |
| **Approx Sample Volume (mL):** | 400mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Sampler Message/ Subsample Result | Trigger # | Date/Time | Sampler Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 12/14 9:46 | Success | 13 | | |
| 2 | 1 10:33 | 1 | 14 | | |
| 3 | | | 15 | | |
| 4 | | | 16 | | |
| 5 | | | 17 | | |
| 6 | | | 18 | | |
| 7 | | | 19 | | |
| 8 | | | 20 | | |
| 9 | | | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:**

**If sampling is complete:**
- ☑ Power off sampler
- ☒ Verify Flowmeter is running
- ☑ Add ice to sample transport cooler
- ☒ Complete COC form; arrange transport to lab

**If continuing sampling (sample bottle change-out):**
- ☐ Keep flowmeter running
- ☐ Install new 15L bottle; add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00383-01 | ACST1B | 241214-03-WG | Water | | 12/14/24 1:48 | 12/14/24 7:10 |
| AC00383-02 | ACST1B | 241214-11-WG | Water | | 12/14/24 2:16 | 12/14/24 7:10 |
| AC00383-03 | ACST1B | 241214-12-WG | Water | | 12/14/24 2:05 | 12/14/24 7:10 |
| AC00383-04 | ACST1B | 241214-14-WG | Water | | 12/14/24 2:28 | 12/14/24 7:10 |
| AC00383-05 | ACST1B | 241214-14-101 | Water | | 12/14/24 12:00 | 12/14/24 7:10 |
| AC00383-06 | ACST1B | 241214-14-001 | Water | | 12/14/24 12:00 | 12/14/24 7:10 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-03-WG |
| Date/Time Collected: | 12/14/2024 01:48 | | |
| Lab Number: | AC00383-01 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 648.8 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-11-WG |
| Date/Time Collected: | 12/14/2024 02:16 | | |
| Lab Number: | AC00383-02 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 920.8 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-12-WG |
| Date/Time Collected: | 12/14/2024 02:05 | | |
| Lab Number: | AC00383-03 | Sample Collector: | K.C |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 261.3 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-14-WG |
| Date/Time Collected: | 12/14/2024 02:28 | | |
| Lab Number: | AC00383-04 | Sample Collector: | K.C |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 517.2 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-14-101 |
| Date/Time Collected: | 12/14/2024 12:00 | | |
| Lab Number: | AC00383-05 | Sample Collector: | K.C |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 727.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-14-001 |
| Date/Time Collected: | 12/14/2024 12:00 | | |
| Lab Number: | AC00383-06 | Sample Collector: | K.C |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | <1.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | U |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B244544** | | | | | | | | | |
| **Blank (B244544-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 12/15/2024 | ASE | |
| **LCS (B244544-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 12/15/2024 | ASE | |
| **Duplicate (B244544-DUP1)** | Source ID: AC00383-01 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 12/15/2024 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/19/2024 11:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Kate Harris
***Interim Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Chisholm
Steven Turner

## Analysis Methods

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00383-01 | 12/14/24 | | 0148 ~~0214~~ | | 241214-03-WG | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| AC00383-02 | | | 0216 | | 241214-11-WG | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| AC00383-03 | | | 0205 | | 241214-12-WG | KC | X | X | | | | | | | | | | | | X | | | | | | 1 |
| AC00383-04 | | | 0228 | | 241214-14-WG | KC | X | X | | | | | | | | | | | | X | | | | | | 1 |
| AC00383-05 | | | 1200 | | 241214-14-101 | KC | X | X | | | | | | | | | | | | X | | | | | | 1 |
| AC00383-06 | | | 1200 | | 241214-14-001 | KC | X | X | | | | | | | | | | | | X | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Steven Turner | 12/14 04:00 | [signature] | 12 14 24 0710 |
| | | | |
| | | | |

241010 ST

COC_WQL-PI

AC00383

Report Date: 12/20/2024 11:24

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00382-01 | ACST1B | 241214-206-WG | Water | | 12/14/24 2:59 | 12/14/24 7:10 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/20/2024 11:24

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 241214-206-WG |
| Date/Time Collected: | 12/14/2024 02:59 | | |
| Lab Number: | AC00382-01 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B244544 | 1299.7 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 12/14/24 08:22 | 12/15/24 8:30 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B244543 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 12/14/24 | 12/14/24 7:18 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 12/20/2024 11:24

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B244544** | | | | | | | | | |
| **Blank (B244544-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 12/15/2024 | ASE | |
| **LCS (B244544-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 12/15/2024 | ASE | |
| **Duplicate (B244544-DUP1)** | Source ID: AC00383-01 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 12/15/2024 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 12/20/2024 11:24

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Kate Harris
***Interim Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Chisholm
Steven Turner

## Analysis Methods

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00352-01<br>~~AC00383-07~~ | 12/14/24 | | 0259 | | 241214-206-WG | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Steven Turner | 12/14 04:00 | [signature] | 12-14-24 0710 |
| | | | |
| | | | |

241010 ST

COC_WQL-PI

AC00302

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00386-01 | ACST1C | 241214-11-WC | Water | | 12/14/24 10:10 | 12/14/24 13:00 |
| AC00386-02 | ACST1C | 241214-12-WC | Water | | 12/14/24 8:51 | 12/14/24 13:00 |
| AC00386-03 | ACST1C | 241214-14-WC | Water | | 12/14/24 10:18 | 12/14/24 13:00 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 241214-11-WC |
| Date/Time Collected: | 12/14/2024 01:54 - 12/14/2024 10:10 | | |
| Lab Number: | AC00386-01 | Sample Collector: | Kristen Chisholm |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250007 | 0.222 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 01/02/25 | 1/2/25 16:54 | MEC | |
| BOD5 | B244553 | 21.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 12/15/24 | 12/20/24 9:18 | ALM | |
| Chloride | B244584 | 100 | mg/L | 0.0600 | 0.0300 | EPA 300.0, Rev. 2.1 (1993) | 12/19/24 | 12/19/24 8:01 | ALN | D |
| COD | B244551 | 94.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 12/15/24 | 12/15/24 9:26 | ASE | |
| Nitrate-Nitrite, as N | B244579 | 0.445 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 12/17/24 | 12/17/24 12:09 | RKG | |
| TKN | B250022 | 1.36 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 01/03/25 | 1/3/25 15:04 | RKG | |
| Total Dissolved Solids | B244559 | 271 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 12/16/24 | 12/17/24 14:32 | ASE | |
| Total Suspended Solids | B244561 | 32.2 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 12/16/24 | 12/16/24 13:02 | RHC | |
| Turbidity | B244557 | 23.5 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 12/16/24 | 12/16/24 6:54 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B244554 | 0.358 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 12/15/24 | 12/15/24 9:42 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B244572 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 12/17/24 | 12/17/24 12:17 | SAS | U |
| Arsenic | B244638 | 2.2 | ug/L | 0.050 | 0.050 | EPA 200.8 | 12/22/24 | 12/27/24 15:58 | DMW | |
| Cadmium | B244638 | 0.045 | ug/L | 0.020 | 0.020 | EPA 200.8 | 12/22/24 | 12/27/24 15:58 | DMW | |
| Calcium | B244563 | 22.3 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 12/16/24 | 12/19/24 10:01 | SMC | |
| Lead | B244638 | 2.6 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/22/24 | 12/27/24 15:58 | DMW | |
| Magnesium | B244563 | 4670 | ug/L | 80.0 | 80.0 | EPA 200.7 | 12/16/24 | 12/19/24 10:01 | SMC | |
| Phosphorus as P | B244563 | 0.535 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 12/16/24 | 12/19/24 10:01 | SMC | |
| Hardness | B244563 | 74.9 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 12/16/24 | 12/19/24 10:01 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B244637 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:16 | DMW | U |
| Copper | B244637 | 2.4 | ug/L | 0.14 | 0.14 | EPA 200.8 | 12/21/24 | 12/21/24 17:16 | DMW | |
| Lead | B244637 | 0.22 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:16 | DMW | |
| Zinc | B244637 | 17.3 | ug/L | 0.50 | 0.50 | EPA 200.8 | 12/21/24 | 12/21/24 17:16 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 241214-12-WC |
| Date/Time Collected: | 12/14/2024 01:39 - 12/14/2024 08:51 | | |
| Lab Number: | AC00386-02 | Sample Collector: | Kristen Chisholm |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250007 | 0.615 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 01/02/25 | 1/2/25 16:50 | MEC | |
| BOD5 | B244553 | 9.48 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 12/15/24 | 12/20/24 9:12 | ALM | |
| Chloride | B244584 | 50.5 | mg/L | 0.0300 | 0.0300 | EPA 300.0, Rev. 2.1 (1993) | 12/18/24 | 12/18/24 17:37 | ALN | |
| COD | B244551 | 66.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 12/15/24 | 12/15/24 9:26 | ASE | |
| Nitrate-Nitrite, as N | B244579 | 0.247 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 12/17/24 | 12/17/24 12:11 | RKG | |
| TKN | B250022 | 1.31 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 01/03/25 | 1/3/25 15:06 | RKG | |
| Total Dissolved Solids | B244559 | 124 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 12/16/24 | 12/17/24 14:34 | ASE | |
| Total Suspended Solids | B244561 | 30.5 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 12/16/24 | 12/16/24 9:12 | RHC | |
| Turbidity | B244557 | 28.3 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 12/16/24 | 12/16/24 6:37 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B244554 | 0.0859 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 12/15/24 | 12/15/24 9:43 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B244572 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 12/17/24 | 12/17/24 12:46 | SAS | U |
| Arsenic | B244638 | 0.90 | ug/L | 0.050 | 0.050 | EPA 200.8 | 12/22/24 | 12/27/24 16:01 | DMW | |
| Cadmium | B244638 | 0.058 | ug/L | 0.020 | 0.020 | EPA 200.8 | 12/22/24 | 12/27/24 16:01 | DMW | |
| Calcium | B244563 | 7.19 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 12/16/24 | 12/19/24 10:05 | SMC | |
| Lead | B244638 | 3.3 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/22/24 | 12/27/24 16:01 | DMW | |
| Magnesium | B244563 | 1860 | ug/L | 80.0 | 80.0 | EPA 200.7 | 12/16/24 | 12/19/24 10:05 | SMC | |
| Phosphorus as P | B244563 | 0.155 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 12/16/24 | 12/19/24 10:05 | SMC | |
| Hardness | B244563 | 25.6 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 12/16/24 | 12/19/24 10:05 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B244637 | 0.018 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:18 | DMW | |
| Copper | B244637 | 3.5 | ug/L | 0.14 | 0.14 | EPA 200.8 | 12/21/24 | 12/21/24 17:18 | DMW | |
| Lead | B244637 | 0.14 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:18 | DMW | |
| Zinc | B244637 | 31.0 | ug/L | 0.50 | 0.50 | EPA 200.8 | 12/21/24 | 12/21/24 17:18 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

Location: ACST1C
Location Description: 241214-14-WC
Date/Time Collected: 12/14/2024 01:20 - 12/14/2024 10:18
Lab Number: AC00386-03
Sample Collector: Kristen Chisholm
Sample Type: Composite
Sample Matrix: Water

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250007 | 0.251 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 01/02/25 | 1/2/25 16:47 | MEC | |
| BOD5 | B244553 | 14.8 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 12/15/24 | 12/20/24 9:07 | ALM | |
| Chloride | B244584 | 150 | mg/L | 0.0600 | 0.0300 | EPA 300.0, Rev. 2.1 (1993) | 12/19/24 | 12/19/24 8:27 | ALN | D |
| COD | B244551 | 75.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 12/15/24 | 12/15/24 9:26 | ASE | |
| Nitrate-Nitrite, as N | B244579 | 0.778 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 12/17/24 | 12/17/24 12:12 | RKG | |
| TKN | B250022 | 1.17 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 01/03/25 | 1/3/25 15:07 | RKG | |
| Total Dissolved Solids | B244559 | 360 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 12/16/24 | 12/17/24 14:35 | ASE | |
| Total Suspended Solids | B244561 | 42.3 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 12/16/24 | 12/16/24 10:50 | RHC | |
| Turbidity | B244557 | 31.8 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 12/16/24 | 12/16/24 7:08 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B244554 | 0.212 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 12/15/24 | 12/15/24 9:45 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B244572 | 0.0119 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 12/17/24 | 12/17/24 12:49 | SAS | |
| Arsenic | B244638 | 3.4 | ug/L | 0.050 | 0.050 | EPA 200.8 | 12/22/24 | 12/27/24 16:03 | DMW | |
| Cadmium | B244638 | 0.091 | ug/L | 0.020 | 0.020 | EPA 200.8 | 12/22/24 | 12/27/24 16:03 | DMW | |
| Calcium | B244563 | 32.3 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 12/16/24 | 12/19/24 10:08 | SMC | |
| Lead | B244638 | 3.8 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/22/24 | 12/27/24 16:03 | DMW | |
| Magnesium | B244563 | 6410 | ug/L | 80.0 | 80.0 | EPA 200.7 | 12/16/24 | 12/19/24 10:08 | SMC | |
| Phosphorus as P | B244563 | 0.347 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 12/16/24 | 12/19/24 10:08 | SMC | |
| Hardness | B244563 | 107 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 12/16/24 | 12/19/24 10:08 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B244637 | 0.034 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:01 | DMW | |
| Copper | B244637 | 3.2 | ug/L | 0.14 | 0.14 | EPA 200.8 | 12/21/24 | 12/21/24 17:01 | DMW | |
| Lead | B244637 | 0.15 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:01 | DMW | |
| Zinc | B244637 | 24.3 | ug/L | 0.50 | 0.50 | EPA 200.8 | 12/21/24 | 12/21/24 17:01 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 01/10/2025 12:54

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B244551** | | | | | | | | | |
| **Blank (B244551-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 12/15/2024 | ASE | U |
| **LCS (B244551-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 12/15/2024 | ASE | |
| **Duplicate (B244551-DUP1)** | Source ID: AC00385-01 | | | | | | | | |
| COD | | | | | 1.77 | 10 | 12/15/2024 | ASE | |
| **Batch: B244553** | | | | | | | | | |
| **Blank (B244553-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 12/20/2024 | ALM | U |
| **LCS (B244553-BS1)** | | | | | | | | | |
| BOD5 | | | 99.3 | 84.6-115.4 | | | 12/20/2024 | ALM | |
| **LCS (B244553-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 12/20/2024 | ALM | |
| **Duplicate (B244553-DUP1)** | Source ID: BB04382-01 | | | | | | | | |
| BOD5 | | | | | 12.4 | 30 | 12/20/2024 | ALM | D |
| **Batch: B244557** | | | | | | | | | |
| **Blank (B244557-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 12/16/2024 | ALN | U |
| **LCS (B244557-BS1)** | | | | | | | | | |
| Turbidity | | | 99.6 | 90-110 | | | 12/16/2024 | ALN | |
| **Duplicate (B244557-DUP1)** | Source ID: AC00386-02 | | | | | | | | |
| Turbidity | | | | | 6.82 | 25 | 12/16/2024 | ALN | |
| **Batch: B244559** | | | | | | | | | |
| **Blank (B244559-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 12/17/2024 | ASE | U |
| **LCS (B244559-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 90.7 | 90-110 | | | 12/17/2024 | ASE | |
| **Duplicate (B244559-DUP1)** | Source ID: BB04383-04 | | | | | | | | |
| Total Dissolved Solids | | | | | 1.46 | 10 | 12/17/2024 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B244561** | | | | | | | | | |
| **Blank (B244561-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 12/16/2024 | RHC | U |
| **LCS (B244561-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 98.5 | 90-110 | | | 12/16/2024 | RHC | |
| **Duplicate (B244561-DUP1)** Source ID: LS02191-02 | | | | | | | | | |
| Total Suspended Solids | | | | | 3.45 | 20 | 12/16/2024 | RHC | |
| **Duplicate (B244561-DUP2)** Source ID: EP00416-01 | | | | | | | | | |
| Total Suspended Solids | | | | | 2.82 | 20 | 12/16/2024 | RHC | |
| **Batch: B244579** | | | | | | | | | |
| **Blank (B244579-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 12/17/2024 | RKG | U |
| **LCS (B244579-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.9 | 90-110 | | | 12/17/2024 | RKG | |
| **LCS (B244579-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.3 | 90-110 | | | 12/17/2024 | RKG | |
| **Duplicate (B244579-DUP1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.0167 | 10 | 12/17/2024 | RKG | D |
| **Duplicate (B244579-DUP2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.701 | 10 | 12/17/2024 | RKG | |
| **Matrix Spike (B244579-MS1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.1 | 90-110 | | | 12/17/2024 | RKG | D |
| **Matrix Spike (B244579-MS2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.6 | 90-110 | | | 12/17/2024 | RKG | |
| **Matrix Spike Dup (B244579-MSD1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 98.7 | 90-110 | 1.24 | 10 | 12/17/2024 | RKG | D |
| **Matrix Spike Dup (B244579-MSD2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.1 | 90-110 | 0.161 | 10 | 12/17/2024 | RKG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B244584** | | | | | | | | | |
| **Blank (B244584-BLK1)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/18/2024 | ALN | U |
| **Blank (B244584-BLK2)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/18/2024 | ALN | U |
| **Blank (B244584-BLK3)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/19/2024 | ALN | U |
| **LCS (B244584-BS1)** | | | | | | | | | |
| Chloride | | | 98.5 | 90-110 | | | 12/18/2024 | ALN | |
| **Duplicate (B244584-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | | | 0.109 | 10 | 12/18/2024 | ALN | |
| **Duplicate (B244584-DUP2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | | | 0.0846 | 10 | 12/18/2024 | ALN | D |
| **Matrix Spike (B244584-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | 96.8 | 90-110 | | | 12/18/2024 | ALN | |
| **Matrix Spike (B244584-MS2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | 95.8 | 90-110 | | | 12/18/2024 | ALN | D |
| **Matrix Spike Dup (B244584-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | 96.1 | 90-110 | 0.255 | 10 | 12/18/2024 | ALN | |
| **Matrix Spike Dup (B244584-MSD2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | 98.2 | 90-110 | 1.42 | 10 | 12/18/2024 | ALN | D |
| **Batch: B250007** | | | | | | | | | |
| **Blank (B250007-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 01/02/2025 | MEC | U |
| **Blank (B250007-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 01/02/2025 | MEC | U |
| **LCS (B250007-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 99.1 | 90-110 | | | 01/02/2025 | MEC | |
| **LCS (B250007-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 98.1 | 90-110 | | | 01/02/2025 | MEC | |
| **Duplicate (B250007-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | | | 1.82 | 20 | 01/02/2025 | MEC | |
| **Duplicate (B250007-DUP2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | | | 4.19 | 20 | 01/02/2025 | MEC | D |
| **Matrix Spike (B250007-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | 105 | 84-115 | | | 01/02/2025 | MEC | |
| **Matrix Spike (B250007-MS2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | 99.0 | 84-115 | | | 01/02/2025 | MEC | D |
| **Matrix Spike (B250007-MS3)** Source ID: EP00416-01 | | | | | | | | | |
| Ammonia, as N | | | 104 | 84-115 | | | 01/02/2025 | MEC | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250007 (Continued)** | | | | | | | | | |
| **Matrix Spike (B250007-MS4)** Source ID: EP00417-01 | | | | | | | | | |
| Ammonia, as N | | | 100 | 84-115 | | | 01/02/2025 | MEC | |
| **Matrix Spike Dup (B250007-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | 104 | 84-115 | 1.01 | 20 | 01/02/2025 | MEC | |
| **Matrix Spike Dup (B250007-MSD2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | 99.1 | 84-115 | 0.0772 | 20 | 01/02/2025 | MEC | D |
| **Batch: B250022** | | | | | | | | | |
| **Blank (B250022-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 01/03/2025 | RKG | U |
| **Blank (B250022-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 01/03/2025 | RKG | U |
| **LCS (B250022-BS1)** | | | | | | | | | |
| TKN | | | 96.4 | 80-120 | | | 01/03/2025 | RKG | |
| **LCS (B250022-BS2)** | | | | | | | | | |
| TKN | | | 91.8 | 80-120 | | | 01/03/2025 | RKG | |
| **Duplicate (B250022-DUP1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | | | 0.409 | 20 | 01/03/2025 | RKG | D |
| **Duplicate (B250022-DUP2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | | | 2.25 | 20 | 01/03/2025 | RKG | D |
| **Duplicate (B250022-DUP3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | | | 0.918 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | 98.2 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | 97.6 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS4)** Source ID: EP00416-01 | | | | | | | | | |
| TKN | | | 95.4 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS5)** Source ID: EP00417-01 | | | | | | | | | |
| TKN | | | 95.2 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | 97.3 | 80-120 | 0.331 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | 88.1 | 80-120 | 3.95 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | 92.0 | 80-120 | 2.22 | 20 | 01/03/2025 | RKG | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B244554** | | | | | | | | | |
| **Blank (B244554-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 12/15/2024 | BAK | U |
| **LCS (B244554-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 96.9 | 90-110 | | | 12/15/2024 | BAK | |
| **Duplicate (B244554-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0508 | 10 | 12/15/2024 | BAK | |
| **Matrix Spike (B244554-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | | | 12/15/2024 | BAK | |
| **Matrix Spike Dup (B244554-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.124 | 10 | 12/15/2024 | BAK | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B244563** | | | | | | | | | |
| **Blank (B244563-BLK1)** | | | | | | | | | |
| Calcium | <40 | ug/L | | | | | 12/19/2024 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 12/19/2024 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 12/19/2024 | SMC | U |
| **LCS (B244563-BS1)** | | | | | | | | | |
| Calcium | | | 99.7 | 85-115 | | | 12/19/2024 | SMC | |
| Magnesium | | | 99.4 | 85-115 | | | 12/19/2024 | SMC | |
| Phosphorus as P | | | 100 | 85-115 | | | 12/19/2024 | SMC | |
| **Duplicate (B244563-DUP1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | | | 1.49 | 20 | 12/19/2024 | SMC | |
| Magnesium | | | | | 1.58 | 20 | 12/19/2024 | SMC | |
| Phosphorus as P | | | | | 1.91 | 20 | 12/19/2024 | SMC | |
| **Matrix Spike (B244563-MS1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 12/19/2024 | SMC | |
| Magnesium | | | 101 | 70-130 | | | 12/19/2024 | SMC | |
| Phosphorus as P | | | 95.5 | 70-130 | | | 12/19/2024 | SMC | |
| **Matrix Spike Dup (B244563-MSD1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | 0.430 | 20 | 12/19/2024 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.270 | 20 | 12/19/2024 | SMC | |
| Phosphorus as P | | | 95.5 | 70-130 | 0.0187 | 20 | 12/19/2024 | SMC | |
| **Batch: B244572** | | | | | | | | | |
| **Blank (B244572-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 12/17/2024 | SAS | U |
| **LCS (B244572-BS1)** | | | | | | | | | |
| Mercury | | | 103 | 85-115 | | | 12/17/2024 | SAS | |
| **Duplicate (B244572-DUP1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 12/17/2024 | SAS | U |
| **Matrix Spike (B244572-MS1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | 111 | 70-130 | | | 12/17/2024 | SAS | |
| **Matrix Spike Dup (B244572-MSD1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | 110 | 70-130 | 0.145 | 20 | 12/17/2024 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B244638** | | | | | | | | | |
| **Blank (B244638-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 12/27/2024 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 12/27/2024 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 12/27/2024 | DMW | U |
| **LCS (B244638-BS1)** | | | | | | | | | |
| Arsenic | | | 100 | 85-115 | | | 12/27/2024 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 12/27/2024 | DMW | |
| Lead | | | 106 | 85-115 | | | 12/27/2024 | DMW | |
| **Duplicate (B244638-DUP1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | | | 0.891 | 20 | 12/27/2024 | DMW | |
| Cadmium | | | | | 0.303 | 20 | 12/27/2024 | DMW | |
| Lead | | | | | 0.821 | 20 | 12/27/2024 | DMW | |
| **Matrix Spike (B244638-MS1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | 98.9 | 70-130 | | | 12/27/2024 | DMW | |
| Cadmium | | | 101 | 70-130 | | | 12/27/2024 | DMW | |
| Lead | | | 98.0 | 70-130 | | | 12/27/2024 | DMW | |
| **Matrix Spike Dup (B244638-MSD1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | 98.8 | 70-130 | 0.0531 | 20 | 12/27/2024 | DMW | |
| Cadmium | | | 99.0 | 70-130 | 2.21 | 20 | 12/27/2024 | DMW | |
| Lead | | | 97.8 | 70-130 | 0.152 | 20 | 12/27/2024 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B244637** | | | | | | | | | |
| **Blank (B244637-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 12/21/2024 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 12/21/2024 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 12/21/2024 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 12/21/2024 | DMW | U |
| **LCS (B244637-BS1)** | | | | | | | | | |
| Cadmium | | | 97.6 | 85-115 | | | 12/21/2024 | DMW | |
| Copper | | | 97.0 | 85-115 | | | 12/21/2024 | DMW | |
| Lead | | | 99.9 | 85-115 | | | 12/21/2024 | DMW | |
| Zinc | | | 96.1 | 85-115 | | | 12/21/2024 | DMW | |
| **Duplicate (B244637-DUP1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | | | 42.8 | 10 | 12/21/2024 | DMW | QC-02 |
| Copper | | | | | 0.309 | 10 | 12/21/2024 | DMW | |
| Lead | | | | | 7.86 | 10 | 12/21/2024 | DMW | |
| Zinc | | | | | 0.422 | 10 | 12/21/2024 | DMW | |
| **Matrix Spike (B244637-MS1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | 96.0 | 70-130 | | | 12/21/2024 | DMW | |
| Copper | | | 91.6 | 70-130 | | | 12/21/2024 | DMW | |
| Lead | | | 94.7 | 70-130 | | | 12/21/2024 | DMW | |
| Zinc | | | 90.3 | 70-130 | | | 12/21/2024 | DMW | |
| **Matrix Spike Dup (B244637-MSD1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | 93.6 | 70-130 | 2.57 | 10 | 12/21/2024 | DMW | |
| Copper | | | 88.5 | 70-130 | 2.56 | 10 | 12/21/2024 | DMW | |
| Lead | | | 91.1 | 70-130 | 3.83 | 10 | 12/21/2024 | DMW | |
| Zinc | | | 87.7 | 70-130 | 1.51 | 10 | 12/21/2024 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| QC-02 | The RPD is greater than the method acceptance criteria. At least one of the values used to calculate the RPD, is less than or equal to the PQL. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Chisholm
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00386-01 | 12/14/24 | 12/14/24 | 0154 | 1010 | 241214-11-WC | KC | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| AC00386-02 | " | " | 0139 | 0851 | 241214-12-WC | KC | " | | " | " | " | " | " | " | " | " | " | " | " | | " | " | " | " | " | 1 |
| AC00386-03 | " | " | 0120 | 1018 | 241214-14-WC | KC | ↓ | | ↓ | " | " | " | " | " | " | " | " | " | " | | " | " | " | " | " | 2 |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Chisholm | 12/14/24 1246 | 12/14/24 3:00 | |

241010 ST

DC_WQL-PI

AC00386

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00385-01 | ACST1C | 241214-206-WC | Water | | 12/14/24 10:33 | 12/14/24 13:00 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

Location: ACST1C
Location Description: 241214-206-WC
Date/Time Collected: 12/14/2024 02:08 - 12/14/2024 10:33
Lab Number: AC00385-01
Sample Collector: Kristen Chisholm
Sample Type: Composite
Sample Matrix: Water

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250007 | 0.119 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 01/02/25 | 1/2/25 16:57 | MEC | |
| BOD5 | B244553 | 34.9 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 12/15/24 | 12/20/24 9:23 | ALM | |
| Chloride | B244584 | 94.0 | mg/L | 0.0300 | 0.0300 | EPA 300.0, Rev. 2.1 (1993) | 12/18/24 | 12/18/24 16:44 | ALN | |
| COD | B244551 | 171 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 12/15/24 | 12/15/24 9:26 | ASE | |
| Nitrate-Nitrite, as N | B244579 | 0.0960 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 12/17/24 | 12/17/24 12:08 | RKG | |
| TKN | B250022 | 1.74 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 01/03/25 | 1/3/25 15:03 | RKG | |
| Total Dissolved Solids | B244559 | 267 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 12/16/24 | 12/17/24 14:31 | ASE | |
| Total Suspended Solids | B244561 | 43.5 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 12/16/24 | 12/16/24 10:54 | RHC | |
| Turbidity | B244557 | 49.4 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 12/16/24 | 12/16/24 7:20 | ALN | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B244554 | 0.668 | mg/L | 6.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 12/15/24 | 12/15/24 9:46 | BAK | D |
| **Total Metals** | | | | | | | | | | |
| Mercury | B244572 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 12/17/24 | 12/17/24 12:35 | SAS | U |
| Arsenic | B244638 | 2.2 | ug/L | 0.050 | 0.050 | EPA 200.8 | 12/22/24 | 12/27/24 15:56 | DMW | |
| Cadmium | B244638 | 0.069 | ug/L | 0.020 | 0.020 | EPA 200.8 | 12/22/24 | 12/27/24 15:56 | DMW | |
| Calcium | B244563 | 9.22 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 12/16/24 | 12/19/24 9:45 | SMC | |
| Lead | B244638 | 4.5 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/22/24 | 12/27/24 15:56 | DMW | |
| Magnesium | B244563 | 2990 | ug/L | 80.0 | 80.0 | EPA 200.7 | 12/16/24 | 12/19/24 9:45 | SMC | |
| Phosphorus as P | B244563 | 0.934 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 12/16/24 | 12/19/24 9:45 | SMC | |
| Hardness | B244563 | 35.3 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 12/16/24 | 12/19/24 9:45 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B244637 | 0.019 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:13 | DMW | |
| Copper | B244637 | 4.7 | ug/L | 0.14 | 0.14 | EPA 200.8 | 12/21/24 | 12/21/24 17:13 | DMW | |
| Lead | B244637 | 0.59 | ug/L | 0.010 | 0.010 | EPA 200.8 | 12/21/24 | 12/21/24 17:13 | DMW | |
| Zinc | B244637 | 26.7 | ug/L | 0.50 | 0.50 | EPA 200.8 | 12/21/24 | 12/21/24 17:13 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B244551** | | | | | | | | | |
| **Blank (B244551-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 12/15/2024 | ASE | U |
| **LCS (B244551-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 12/15/2024 | ASE | |
| **Duplicate (B244551-DUP1)** | Source ID: AC00385-01 | | | | | | | | |
| COD | | | | | 1.77 | 10 | 12/15/2024 | ASE | |
| **Batch: B244553** | | | | | | | | | |
| **Blank (B244553-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 12/20/2024 | ALM | U |
| **LCS (B244553-BS1)** | | | | | | | | | |
| BOD5 | | | 99.3 | 84.6-115.4 | | | 12/20/2024 | ALM | |
| **LCS (B244553-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 12/20/2024 | ALM | |
| **Duplicate (B244553-DUP1)** | Source ID: BB04382-01 | | | | | | | | |
| BOD5 | | | | | 12.4 | 30 | 12/20/2024 | ALM | D |
| **Batch: B244557** | | | | | | | | | |
| **Blank (B244557-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 12/16/2024 | ALN | U |
| **LCS (B244557-BS1)** | | | | | | | | | |
| Turbidity | | | 99.6 | 90-110 | | | 12/16/2024 | ALN | |
| **Duplicate (B244557-DUP1)** | Source ID: AC00386-02 | | | | | | | | |
| Turbidity | | | | | 6.82 | 25 | 12/16/2024 | ALN | |
| **Batch: B244559** | | | | | | | | | |
| **Blank (B244559-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 12/17/2024 | ASE | U |
| **LCS (B244559-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 90.7 | 90-110 | | | 12/17/2024 | ASE | |
| **Duplicate (B244559-DUP1)** | Source ID: BB04383-04 | | | | | | | | |
| Total Dissolved Solids | | | | | 1.46 | 10 | 12/17/2024 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B244561** | | | | | | | | | |
| **Blank (B244561-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 12/16/2024 | RHC | U |
| **LCS (B244561-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 98.5 | 90-110 | | | 12/16/2024 | RHC | |
| **Duplicate (B244561-DUP1)** Source ID: LS02191-02 | | | | | | | | | |
| Total Suspended Solids | | | | | 3.45 | 20 | 12/16/2024 | RHC | |
| **Duplicate (B244561-DUP2)** Source ID: EP00416-01 | | | | | | | | | |
| Total Suspended Solids | | | | | 2.82 | 20 | 12/16/2024 | RHC | |
| **Batch: B244579** | | | | | | | | | |
| **Blank (B244579-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 12/17/2024 | RKG | U |
| **LCS (B244579-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.9 | 90-110 | | | 12/17/2024 | RKG | |
| **LCS (B244579-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.3 | 90-110 | | | 12/17/2024 | RKG | |
| **Duplicate (B244579-DUP1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.0167 | 10 | 12/17/2024 | RKG | D |
| **Duplicate (B244579-DUP2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.701 | 10 | 12/17/2024 | RKG | |
| **Matrix Spike (B244579-MS1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.1 | 90-110 | | | 12/17/2024 | RKG | D |
| **Matrix Spike (B244579-MS2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.6 | 90-110 | | | 12/17/2024 | RKG | |
| **Matrix Spike Dup (B244579-MSD1)** Source ID: BB04373-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 98.7 | 90-110 | 1.24 | 10 | 12/17/2024 | RKG | D |
| **Matrix Spike Dup (B244579-MSD2)** Source ID: BB04384-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.1 | 90-110 | 0.161 | 10 | 12/17/2024 | RKG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B244584** | | | | | | | | | |
| **Blank (B244584-BLK1)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/18/2024 | ALN | U |
| **Blank (B244584-BLK2)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/18/2024 | ALN | U |
| **Blank (B244584-BLK3)** | | | | | | | | | |
| Chloride | <0.03 | mg/L | | | | | 12/19/2024 | ALN | U |
| **LCS (B244584-BS1)** | | | | | | | | | |
| Chloride | | | 98.5 | 90-110 | | | 12/18/2024 | ALN | |
| **Duplicate (B244584-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | | | 0.109 | 10 | 12/18/2024 | ALN | |
| **Duplicate (B244584-DUP2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | | | 0.0846 | 10 | 12/18/2024 | ALN | D |
| **Matrix Spike (B244584-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | 96.8 | 90-110 | | | 12/18/2024 | ALN | |
| **Matrix Spike (B244584-MS2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | 95.8 | 90-110 | | | 12/18/2024 | ALN | D |
| **Matrix Spike Dup (B244584-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Chloride | | | 96.1 | 90-110 | 0.255 | 10 | 12/18/2024 | ALN | |
| **Matrix Spike Dup (B244584-MSD2)** Source ID: EP00409-01 | | | | | | | | | |
| Chloride | | | 98.2 | 90-110 | 1.42 | 10 | 12/18/2024 | ALN | D |
| **Batch: B250007** | | | | | | | | | |
| **Blank (B250007-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 01/02/2025 | MEC | U |
| **Blank (B250007-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 01/02/2025 | MEC | U |
| **LCS (B250007-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 99.1 | 90-110 | | | 01/02/2025 | MEC | |
| **LCS (B250007-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 98.1 | 90-110 | | | 01/02/2025 | MEC | |
| **Duplicate (B250007-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | | | 1.82 | 20 | 01/02/2025 | MEC | |
| **Duplicate (B250007-DUP2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | | | 4.19 | 20 | 01/02/2025 | MEC | D |
| **Matrix Spike (B250007-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | 105 | 84-115 | | | 01/02/2025 | MEC | |
| **Matrix Spike (B250007-MS2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | 99.0 | 84-115 | | | 01/02/2025 | MEC | D |
| **Matrix Spike (B250007-MS3)** Source ID: EP00416-01 | | | | | | | | | |
| Ammonia, as N | | | 104 | 84-115 | | | 01/02/2025 | MEC | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250007 (Continued)** | | | | | | | | | |
| **Matrix Spike (B250007-MS4)** Source ID: EP00417-01 | | | | | | | | | |
| Ammonia, as N | | | 100 | 84-115 | | | 01/02/2025 | MEC | |
| **Matrix Spike Dup (B250007-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Ammonia, as N | | | 104 | 84-115 | 1.01 | 20 | 01/02/2025 | MEC | |
| **Matrix Spike Dup (B250007-MSD2)** Source ID: BB04384-03 | | | | | | | | | |
| Ammonia, as N | | | 99.1 | 84-115 | 0.0772 | 20 | 01/02/2025 | MEC | D |
| **Batch: B250022** | | | | | | | | | |
| **Blank (B250022-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 01/03/2025 | RKG | U |
| **Blank (B250022-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 01/03/2025 | RKG | U |
| **LCS (B250022-BS1)** | | | | | | | | | |
| TKN | | | 96.4 | 80-120 | | | 01/03/2025 | RKG | |
| **LCS (B250022-BS2)** | | | | | | | | | |
| TKN | | | 91.8 | 80-120 | | | 01/03/2025 | RKG | |
| **Duplicate (B250022-DUP1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | | | 0.409 | 20 | 01/03/2025 | RKG | D |
| **Duplicate (B250022-DUP2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | | | 2.25 | 20 | 01/03/2025 | RKG | D |
| **Duplicate (B250022-DUP3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | | | 0.918 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | 98.2 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | 97.6 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS4)** Source ID: EP00416-01 | | | | | | | | | |
| TKN | | | 95.4 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike (B250022-MS5)** Source ID: EP00417-01 | | | | | | | | | |
| TKN | | | 95.2 | 80-120 | | | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD1)** Source ID: BB04383-03 | | | | | | | | | |
| TKN | | | 97.3 | 80-120 | 0.331 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD2)** Source ID: BB04385-02 | | | | | | | | | |
| TKN | | | 88.1 | 80-120 | 3.95 | 20 | 01/03/2025 | RKG | D |
| **Matrix Spike Dup (B250022-MSD3)** Source ID: WB03511-06 | | | | | | | | | |
| TKN | | | 92.0 | 80-120 | 2.22 | 20 | 01/03/2025 | RKG | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B244554** | | | | | | | | | |
| **Blank (B244554-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 12/15/2024 | BAK | U |
| **LCS (B244554-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 96.9 | 90-110 | | | 12/15/2024 | BAK | |
| **Duplicate (B244554-DUP1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0508 | 10 | 12/15/2024 | BAK | |
| **Matrix Spike (B244554-MS1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | | | 12/15/2024 | BAK | |
| **Matrix Spike Dup (B244554-MSD1)** Source ID: AC00384-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.124 | 10 | 12/15/2024 | BAK | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B244563** | | | | | | | | | |
| **Blank (B244563-BLK1)** | | | | | | | | | |
| Calcium | <40 | ug/L | | | | | 12/19/2024 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 12/19/2024 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 12/19/2024 | SMC | U |
| **LCS (B244563-BS1)** | | | | | | | | | |
| Calcium | | | 99.7 | 85-115 | | | 12/19/2024 | SMC | |
| Magnesium | | | 99.4 | 85-115 | | | 12/19/2024 | SMC | |
| Phosphorus as P | | | 100 | 85-115 | | | 12/19/2024 | SMC | |
| **Duplicate (B244563-DUP1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | | | 1.49 | 20 | 12/19/2024 | SMC | |
| Magnesium | | | | | 1.58 | 20 | 12/19/2024 | SMC | |
| Phosphorus as P | | | | | 1.91 | 20 | 12/19/2024 | SMC | |
| **Matrix Spike (B244563-MS1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 12/19/2024 | SMC | |
| Magnesium | | | 101 | 70-130 | | | 12/19/2024 | SMC | |
| Phosphorus as P | | | 95.5 | 70-130 | | | 12/19/2024 | SMC | |
| **Matrix Spike Dup (B244563-MSD1)** Source ID: AC00385-01 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | 0.430 | 20 | 12/19/2024 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.270 | 20 | 12/19/2024 | SMC | |
| Phosphorus as P | | | 95.5 | 70-130 | 0.0187 | 20 | 12/19/2024 | SMC | |
| **Batch: B244572** | | | | | | | | | |
| **Blank (B244572-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 12/17/2024 | SAS | U |
| **LCS (B244572-BS1)** | | | | | | | | | |
| Mercury | | | 103 | 85-115 | | | 12/17/2024 | SAS | |
| **Duplicate (B244572-DUP1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 12/17/2024 | SAS | U |
| **Matrix Spike (B244572-MS1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | 111 | 70-130 | | | 12/17/2024 | SAS | |
| **Matrix Spike Dup (B244572-MSD1)** Source ID: AC00386-01 | | | | | | | | | |
| Mercury | | | 110 | 70-130 | 0.145 | 20 | 12/17/2024 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B244638** | | | | | | | | | |
| **Blank (B244638-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 12/27/2024 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 12/27/2024 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 12/27/2024 | DMW | U |
| **LCS (B244638-BS1)** | | | | | | | | | |
| Arsenic | | | 100 | 85-115 | | | 12/27/2024 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 12/27/2024 | DMW | |
| Lead | | | 106 | 85-115 | | | 12/27/2024 | DMW | |
| **Duplicate (B244638-DUP1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | | | 0.891 | 20 | 12/27/2024 | DMW | |
| Cadmium | | | | | 0.303 | 20 | 12/27/2024 | DMW | |
| Lead | | | | | 0.821 | 20 | 12/27/2024 | DMW | |
| **Matrix Spike (B244638-MS1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | 98.9 | 70-130 | | | 12/27/2024 | DMW | |
| Cadmium | | | 101 | 70-130 | | | 12/27/2024 | DMW | |
| Lead | | | 98.0 | 70-130 | | | 12/27/2024 | DMW | |
| **Matrix Spike Dup (B244638-MSD1)** Source ID: AC00386-03 | | | | | | | | | |
| Arsenic | | | 98.8 | 70-130 | 0.0531 | 20 | 12/27/2024 | DMW | |
| Cadmium | | | 99.0 | 70-130 | 2.21 | 20 | 12/27/2024 | DMW | |
| Lead | | | 97.8 | 70-130 | 0.152 | 20 | 12/27/2024 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B244637** | | | | | | | | | |
| **Blank (B244637-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 12/21/2024 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 12/21/2024 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 12/21/2024 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 12/21/2024 | DMW | U |
| **LCS (B244637-BS1)** | | | | | | | | | |
| Cadmium | | | 97.6 | 85-115 | | | 12/21/2024 | DMW | |
| Copper | | | 97.0 | 85-115 | | | 12/21/2024 | DMW | |
| Lead | | | 99.9 | 85-115 | | | 12/21/2024 | DMW | |
| Zinc | | | 96.1 | 85-115 | | | 12/21/2024 | DMW | |
| **Duplicate (B244637-DUP1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | | | 42.8 | 10 | 12/21/2024 | DMW | QC-02 |
| Copper | | | | | 0.309 | 10 | 12/21/2024 | DMW | |
| Lead | | | | | 7.86 | 10 | 12/21/2024 | DMW | |
| Zinc | | | | | 0.422 | 10 | 12/21/2024 | DMW | |
| **Matrix Spike (B244637-MS1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | 96.0 | 70-130 | | | 12/21/2024 | DMW | |
| Copper | | | 91.6 | 70-130 | | | 12/21/2024 | DMW | |
| Lead | | | 94.7 | 70-130 | | | 12/21/2024 | DMW | |
| Zinc | | | 90.3 | 70-130 | | | 12/21/2024 | DMW | |
| **Matrix Spike Dup (B244637-MSD1)** Source ID: AC00386-03 | | | | | | | | | |
| Cadmium | | | 93.6 | 70-130 | 2.57 | 10 | 12/21/2024 | DMW | |
| Copper | | | 88.5 | 70-130 | 2.56 | 10 | 12/21/2024 | DMW | |
| Lead | | | 91.1 | 70-130 | 3.83 | 10 | 12/21/2024 | DMW | |
| Zinc | | | 87.7 | 70-130 | 1.51 | 10 | 12/21/2024 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 01/10/2025 12:54

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| QC-02 | The RPD is greater than the method acceptance criteria. At least one of the values used to calculate the RPD, is less than or equal to the PQL. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Chisholm
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00385-01 | 12/14/24 | 12/14/24 | 0208 | 1033 | 241214-206-WC | KC | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Chisholm | 12/14/24 1246 | 12/14/24 1300 | |



AC00385

# ACHD Sample Filtration, Splitting, and Compositing for Metals



| Sample | Split/Filter Info | Filter Used | Bottle/Lid Lots | Bottles Split | Comments |
|---|---|---|---|---|---|
| Lims#: AC00386-03<br>Location: _____<br>Sample Date: 12-14-24<br>Sample ID: ACSTIC<br>1 -18 14 | Split<br>Date: 12-14-24<br>Start Split: 1330<br>Start Filter: 1330<br>Comp Time: 1310<br>Analyst: DMW/SMC | Filter: ☒Voss<br>☒0.45µm ☐1.0µm<br>☒5.0µm<br>☐Other: 10um<br>CC00018-74 | Coll Jug: CC00059-01<br>Comp Jug: CC00058-45<br>SS Tubing: CC00052-05<br>~~SS Helper:~~ CC00058-64<br>Stir Bar: CC00018-74<br>Connector: ~~CC00058-74~~ CC00051-AC<br>55-05 | ☒Teflon Total ☒TKN<br>☒Teflon Diss (F) ☒$NH_3$<br>☒Hg CVAA ☒$NO_x$ (F)<br>☒BOD ☒ortho-P (F)<br>☒TSS 1C ☒Turb<br>☒TDS ☐_____<br>☒COD ☐_____ | 2 jugs<br>3 filters |
| Lims#: AC00384-01<br>Location: _____<br>Sample Date: 12-14-24<br>Sample ID: ACSTIC<br>2 -19 | Split<br>Date: 12-14-24<br>Start Split: 1338<br>Start Filter: 1338<br>Comp Time: 1325<br>Analyst: DMW/SMC | Filter: ☒Voss<br>☒0.45µm ☐1.0µm<br>☒5.0µm<br>☒Other: 10um | Coll Jug: CC00059-01<br>Comp Jug: —<br>SS Tubing: SSA1<br>~~SS Helper:~~ CC00058-64<br>Stir Bar: ~~CC00058-51~~ CC00058-51<br>Connector: CC00054-32, 51 | ☒Teflon Total ☒TKN<br>☒Teflon Diss (F) ☒$NH_3$<br>☒Hg CVAA ☒$NO_x$ (F)<br>☒BOD ☒ortho-P (F)<br>☒TSS 1C ☒Turb<br>☒TDS ☐_____<br>☒COD ☐_____ | 2 jugs<br>6 filters |
| Lims#: AC00386-01<br>Location: _____<br>Sample Date: 12-14-24<br>Sample ID: ACSTIC<br>3 -11 | Split<br>Date: 12-14-24<br>Start Split: 1410<br>Start Filter: 1410<br>Comp Time: 1400<br>Analyst: MW/SMC | Filter: ☒Voss<br>☒0.45µm ☒1.0µm<br>☒5.0µm<br>☒Other: 10um | Coll Jug: CC00059-01/—<br>Comp Jug: _____<br>SS Tubing: CC00057-AF<br>~~SS Helper:~~ _____<br>Stir Bar: CC00058-51 11-45<br>Connector CC00051-27 (2) | ☒Teflon Total ☒TKN<br>☒Teflon Diss (F) ☒$NH_3$<br>☒Hg CVAA ☒$NO_x$ (F)<br>☒BOD ☒ortho-P (F)<br>☒TSS 1C ☒Turb<br>☒TDS ☐_____<br>☒COD ☐_____ | 4 filters<br>2 jugs<br>connected to CC00054-B1+ |
| Lims#: AC00385-01<br>Location: _____<br>Sample Date: 12-14-24<br>Sample ID: ACSTIC<br>4 206 | Split<br>Date: 12-14-24<br>Start Split: 1425<br>Start Filter: 1425<br>Comp Time: 1422<br>Analyst: DMW/SMC | Filter: ☒Voss<br>☒0.45µm ☐1.0µm<br>☒5.0µm<br>☒Other: 10um | Coll Jug: CC00048-45, 58-49<br>Comp Jug: CC00058-50<br>SS Tubing: CC00058-70<br>~~SS Helper:~~ _____<br>Stir Bar: CC00059-41<br>Connector: CC00051-27, 54-32 | ☒Teflon Total ☒TKN<br>☒Teflon Diss (F) ☒$NH_3$<br>☒Hg CVAA ☒$NO_x$ (F)<br>☒BOD ☒ortho-P (F)<br>☒TSS 1C ☒Turb<br>☒TDS ☐_____<br>☒COD ☐_____ | 3 jugs<br>3 filters |
| Lims#: AC00386-02<br>Location: _____<br>Sample Date: ACSTIC<br>Sample ID: _____<br>5 12 | Split<br>Date: 12-14-24<br>Start Split: 1439<br>Start Filter: 1439<br>Comp Time: —<br>Analyst: DMW/SMC | Filter: ☒Voss<br>☒0.45µm ☐1.0µm<br>☒5.0µm<br>☒Other: 10um | Coll Jug: No Tag/—<br>Comp Jug: —<br>SS Tubing: CC00058-47<br>~~SS Helper:~~ _____<br>Stir Bar: CC00058-51<br>Connector: CC00059-27 (2)<br>03 | ☒Teflon Total ☒TKN<br>☒Teflon Diss (F) ☒$NH_3$<br>☒Hg CVAA ☒$NO_x$ (F)<br>☒BOD ☒ortho-P (F)<br>☒TSS 1C ☒Turb<br>☒TDS ☐_____<br>☒COD ☐_____ | 1 jug<br>3 filters |

# Technical Memorandum

1290 W. Myrtle St. Suite 340
Boise, ID 83702

Phone: 801.316.9859

Prepared for: Ada County Highway District

Project Title: NPDES Phase I Stormwater Support WY 2025

Project No.: 196784

**Technical Memorandum**

Subject: ACHD Phase I Storm Event Report for January 31, 2025

Date: March 20, 2025

To: Monica Lowe

Cc: Steven Turner

Kristen Jolliffe

From: Zuly Lapa, Project Engineer

Prepared by: Reghan Hodges, Project Engineer

Reviewed by: Zuly Lapa, EIT, Project Engineer

Nikki McDonald, PE, Project Manager

*Limitations:*

*This document was prepared solely for ACHD in accordance with professional standards at the time the services were performed and in accordance with the contract between ACHD and Brown and Caldwell dated September 14, 2024. This document is governed by the specific scope of work authorized by ACHD; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by ACHD and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the January 31, 2025, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

**Table 2-1. WY 2025 Samples Collected**

| Date | Lucky | Whitewater | Main | Americana | AS_6 |
|---|---|---|---|---|---|
| December 14, 2024 | G, --[1] | G, C | G, C | G, C | G, C |
| January 31, 2025 | --, C | --, C[2] | --, C | --, C[2] | --, C[3] |
| Unqualified Samples: | 1G, 1C | 1G, 1C | 1G, 2C | 1G, 1C | 1G, 1C |
| Samples Remaining: | 2G, 2C | 2G, 2C | 2G, 1C | 2G, 2C | 2G, 2C |

*Notes:*

*-- = no samples taken*

*C = composite sample*

*G = grab sample*

*[1] Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

*[2] Composite sample qualified due to lack of representativeness (50%–75%).*

*[3] Sample rejected due to lack of representativeness (<50%).*

# Section 3: Storm Event Summary

The January 31, 2025, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from January 31, 2025, is included in Attachment A for reference.

**Thursday, January 30, 2025 (Sampling Event Communication & Set Up)**

- On the morning of January 30, the National Weather Service issued a forecast for widespread rain and snow in the Boise area, starting January 31 at 1300 and ending at 2200. The forecasted precipitation for this event was 0.13 inches of rain and 0.1-1.0 inches of snow. The chance of precipitation was 90%, with 76% probability of snow and rain amounts to be greater than 0.1 inches over a 12-hour period.
- Setup for Lucky, Whitewater, Americana and AS_6 was accomplished on the afternoon of January 30. An expected precipitation depth of 0.11 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

**Friday, January 31, 2025 (Set Up & Storm Event)**

- Setup for Main was accomplished the morning of January 31. An expected precipitation depth of 0.11 inches was used to set the trigger volume (Attachment A).
- The runoff started on January 31 at approximately 1717 and ended on January 31 at 2359.
- Precipitation totals ranged between 0.18 and 0.23 inches at local rain gauges.
- After setting up the stations, an updated forecast resulted in low confidence of overnight rain. The sampling team decided to not collect grab samples and leave composite sampling bottles overnight.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Lucky, Whitewater, Main, Americana and AS_6 sites showing flow, rain, and sample collection data are included in Attachment B.

## 3.2 Sampling Summary

Lucky, Whitewater, Americana and AS_6 monitoring stations were set up on January 30, 2025, and Main monitoring station was set up on January 31, 2025, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Lucky, Whitewater, Main, Americana and AS_6 flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Composite Samples

Composite samples were collected at the Lucky, Whitewater, Main, Americana and AS_6 monitoring stations and submitted to the Boise City Public Works Water Quality Laboratory at 1135 on February 1. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

No quality control samples were collected during the January 31, 20235, storm event.

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A. An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. The composite samples collected at Whitewater and Americana were qualified due to a lack of representativeness (50 – 75 percent) and lasted less than 6

hours. The composite sample collected at AS_6 was rejected because it represented 47 percent of the storm runoff and lasted approximately 1 hour.

## Section 5: Notes and Recommendations

No notes or recommendations from the January 31, 2025, storm event.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main | Americana | AS_6 |
| Grab samples collected and submitted? | NO | NO | NO | NO | NO |
| Composite samples collected and submitted? | YES | YES | YES | YES | YES |
| Trigger volume ($ft^3$) | 2,895 gal | 801 cf | 456 cf | 2,960 cf | 1,646 gal |
| Velocity cutoff (fps) | -- | -- | -- | -- | -- |
| Sampler enable condition (in) or Velocity cutoff (fps) | Level > 2.61" | Level > 3.15" | Level > 2.4" | Level > 5.09" | Level > 1.5" |
| Deadband/ Hysteresis (in) | 1.0" | 1.0" | 1.0" | 1.0" | 1.0" |
| Runoff start time | 1732 | 1934 | 1717 | 1745 | 1923 |
| Grab sample collection time | -- | -- | -- | -- | -- |
| Composite sample stop time | 2238 | 2112 | 2346 | 2128 | 2045 |
| Runoff stop time | 2344 | 2359 | 2359 | 2321 | 2333 |
| Volume of discharge sampled ($ft^3$) | 9,304 | 18,294 | 6,396 | 68,384 | 6,129 |
| Total runoff volume ($ft^3$) | 9,981 | 33,142 | 6,603 | 88,850 | 13,037 |
| Percent of storm flow sampled (%) | 93% | 54% | 98% | 74% | 47% |
| Composite sample duration (hrs) | 4 | 1.5 | 6 | 3.5 | 1 |
| Storm Precipitation (in) | 0.20 | 0.18 | 0.21 | 0.21/0.23 | 0.21/0.23 |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | 23 | 24 | 15 | 24 | 24 |
| Number of composite bottles filled | 1 | 1 | 1 | 1 | 1 |
| Composite sample volume (Approx.; ml) | 12,500 mL | 13,250 mL | 8,750 mL | 14,750 mL | 14,750 mL |

Notes:

-- No data.

**Table 2. Field and Analytical Data Summary**

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | mpn/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Lucky | 1/31/2025 | -- | -- | -- | -- | -- | -- | 250131-03-WC | 14.5 | 89.0 | 6.07 | 17.4 | 36.4 | 49.2 | 46.3 | 0.271 | 0.117 | 0.649 | 0.242 | 1.77 | 1.4 | <0.0100 | 0.055 | 2.3 | 0.083 | 1.5 | 0.0111 | 28.1 |
| Whitewater | 1/31/2025 | -- | -- | -- | -- | -- | -- | 250131-11-WC | 20.1[UJ] | 140[UJ] | 83.2[UJ] | 95.2[UJ] | 113[UJ] | 116[UJ] | 230[UJ] | 0.418[UJ] | 0.182[UJ] | 0.925[UJ] | 0.842[UJ] | 2.46[UJ] | 4.0[UJ] | 0.012[UJ] | 0.12[UJ] | 3.5[UJ] | 0.083[UJ] | 7.7[UJ] | 0.0115[UJ] | 22.0[UJ] |
| Main | 1/31/2025 | -- | -- | -- | -- | -- | -- | 250131-12-WC | 15.8 | 134 | 59.4 | 34.6 | 86.5 | 89.0 | 140 | 0.215 | 0.0795 | 1.08 | 0.285 | 2.17 | 2.0 | 0.019 | 0.12 | 4.7 | 0.063 | 7.2 | 0.0138 | 40.8 |
| Americana | 1/31/2025 | -- | -- | -- | -- | -- | -- | 250131-14-WC | 22.6[UJ] | 153[UJ] | 176[UJ] | 98.5[UJ] | 97.7[UJ] | 118[UJ] | 378[UJ] | 0.365[UJ] | 0.157[UJ] | 0.851[UJ] | 0.734[UJ] | 2.31[UJ] | 3.7[UJ] | 0.024[UJ] | 0.14[UJ] | 3.8[UJ] | 0.091[UJ] | 7.0[UJ] | 0.0144[UJ] | 35.0[UJ] |
| AS_6 | 1/31/2025 | -- | -- | -- | -- | -- | -- | 250131-206-WC | 38.8[R] | 250[R] | 37.6[R] | 33.5[R] | 144[R] | 230[R] | 126[R] | 0.740[R] | 0.384[R] | 0.941[R] | 0.267[R] | 4.33[R] | 2.8[R] | 0.015[R] | 0.15[R] | 4.6[R] | 0.27[R] | 10.6[R] | 0.0145[R] | 27.9[R] |

Notes:

-- = No data.

[UJ] Composite sample qualified due to lack of representativeness (50%-75%).

[R] Sample rejected due to lack of representativeness (<50%).

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Lucky | 1/31/2024 | 30.6 | 0.169 | 0.404 | 0.151 | 1.10 |
| Whitewater | 1/31/2024 | 240[1J] | 0.865[1J] | 1.91[1J] | 1.74[1J] | 5.09[1J] |
| Main | 1/31/2024 | 36.7 | 0.0886 | 0.445 | 0.117 | 0.894 |
| Americana | 1/31/2024 | 654[1J] | 2.02[1J] | 4.72[1J] | 4.07[1J] | 12.8[1J] |
| AS_6 | 1/31/2024 | 187[1R] | 0.602[1R] | 0.766[1R] | 0.217[1R] | 3.52[1R] |

Notes:

[1J] Composite sample qualified due to lack of representativeness (50%-75%).

[1R] Sample rejected due to lack of representativeness (<50%).

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 1/30/2025 | Time: 10:30 AM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | Yes |

| Past 72 hr Precip | |
|---|---|
| Date and time of expected event | 1/31 @ 10:00 am |
| Expected amount of precipitation | 0.13" of rain, 0.1"-1.0" of snow. |
| Percent chance of precipitation | 90% |
| Percent chance of >0.10" over 12 hours | 76% |

NWS Update

Talked to Steven at NWS. He said the system will start out on Friday around 10:00 am as snow and turn into rain from 1:00 pm – 10:00 pm. He predicted 0.1" – 1.0" of snow from that time and 0.13" of rain. There is a high chance there will be a break after 10:00 pm on Friday evening with a chance of showers between 10:00 pm and 5:00 am Saturday. With the snow and rain, Steven predicted a 76% chance for <0.1" of liquid in a 12 hour period.

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☐ Grab |
| ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☐ Light Rain | ☒ Rain | ☒ Rain on Snow |
| ☐ Scattered Showers | ☐ Thunder Showers | ☒ Snowmelt |
| ☐ Other: | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☐ Waiting on Antecedent Dry Period – Expires:
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: 2 Miles NNW Garden City ID
Issued by: National Weather Service Boise, ID
Last Update: 3:42 am MST Jan 30, 2025

Today: Sunny, with a high near 44. Light south southeast wind.
Tonight: Increasing clouds, with a low around 27. East southeast wind around 6 mph becoming northeast after midnight.
Friday: Snow before 2pm, then rain. High near 43. South southeast wind 6 to 11 mph. Chance of precipitation is 90%. Little or no snow accumulation expected.
Friday Night: Rain, mainly before 11pm. Low around 36. Southeast wind 6 to 10 mph. Chance of precipitation is 80%. New precipitation amounts between a tenth and quarter of an inch possible.
Saturday: Rain likely, mainly before 5pm. Mostly cloudy, with a high near 47. Southeast wind around 7 mph becoming west in the afternoon. Chance of precipitation is 70%. New precipitation amounts between a tenth and quarter of an inch possible.

Saturday Night: A chance of rain before 8pm, then snow likely. Mostly cloudy, with a low around 31. Chance of precipitation is 70%. New snow accumulation of less than a half inch possible.
Sunday: Snow likely before 2pm, then rain likely. Mostly cloudy, with a high near 43. Chance of precipitation is 60%. New snow accumulation of less than a half inch possible.
Sunday Night: Rain likely before 8pm, then rain and snow likely. Mostly cloudy, with a low around 32. Chance of precipitation is 60%.
Monday: A chance of rain and snow before 11am, then a chance of rain. Mostly cloudy, with a high near 45. Chance of precipitation is 50%.
Monday Night: Rain likely. Cloudy, with a low around 33. Chance of precipitation is 70%.
Tuesday: Rain and snow likely. Mostly cloudy, with a high near 46. Chance of precipitation is 60%.
Tuesday Night: Rain and snow likely. Mostly cloudy, with a low around 26. Chance of precipitation is 60%.
Wednesday: A 40 percent chance of snow. Partly sunny, with a high near 41.

Forecast Discussion

Area Forecast Discussion
National Weather Service Boise ID
942 AM MST Thu Jan 30 2025

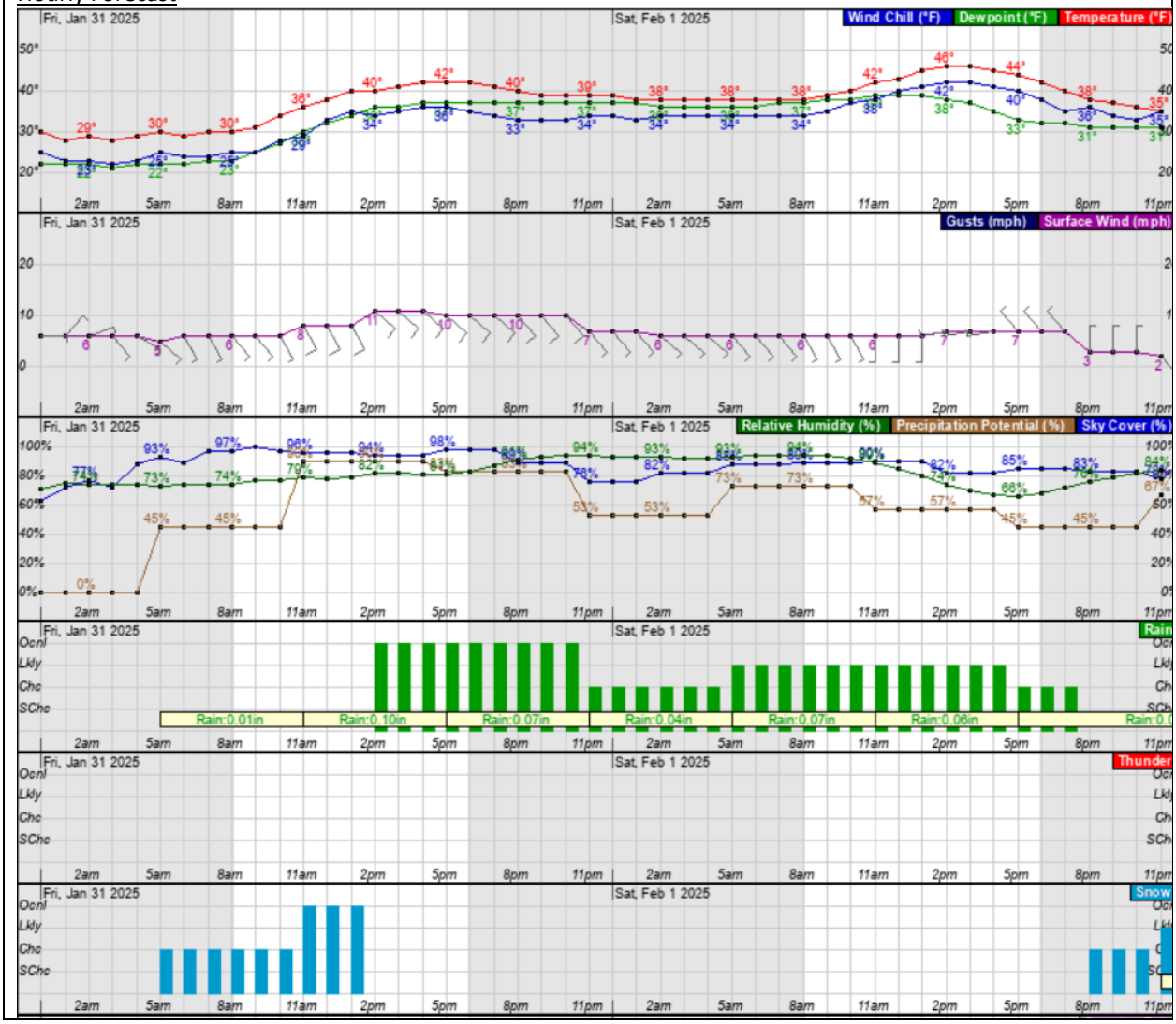
.DISCUSSION...Clear skies this morning with some high clouds later in the day as the upper ridge begins to give way to an incoming storm system. Forecast for today is on track. Afternoon package will see an update to current WWA products with accumulating snow possible down to valley floors.

.SHORT TERM...Today through Saturday night...The upper ridge supporting our dry and stable conditions over the late several days will end on Friday due to the onset of a moist Pacific flow. Clouds increase tonight followed by precipitation moving in from west to east on Friday. **Temperatures will be cold enough for snow all the way down to valley floors through early or mid-afternoon before changing to rain in the lower valleys late in the afternoon and evening.** The air mass will start off very dry which will combine with drying from downslope winds in the Upper Treasure Valley, reducing any chance for appreciable snowfall. The latest guidance suggests just a light dusting of snow on Friday. However, the Lower Treasure Valley near Ontario could see accumulations of up to an inch. **Widespread valley rain/snow and mountain snow continues through Saturday,** especially in the higher elevations of central Idaho where a Winter Storm Watch is in effect through Saturday night. Snow levels range from near valley floors in the north to around 5000 feet near the Nevada border. Gusty winds develop on Friday that continue into Saturday, mainly in the higher elevations where gusts of 30 to 40 mph are expected.

.LONG TERM...Sunday through Thursday...There is some agreement among the ensemble members in showing the moist Pacific plume shifting further south than previous runs early next week, although confidence remains low due to the narrowness of the plume since it could end up further north - similar to the ECMWF. The offshore trough eventually weakens as it moves inland later in the week. Our area remains within a moist west-southwest flow for additional rounds of valley rain/snow and mountain snow. Snowfall in the higher elevations may be significant, but pinpointing amounts with any confidence is low. Winds will be gusty at times. Temperatures near to slightly

above normal trend to near normal later in the week.

Hourly Forecast



# Storm Event QA/QC Checklist – Phase I

**STORM DATE** 1/31/2025

| A. Event and Data Completeness | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | |
| 5. Inconsistencies/clarifications discussed with sampling team member | | | X | |
| 6. All analytical reports from lab received | X | | | |

| B. Validation and Verification Methods | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | X | | | |
| 5. Data quality objective achieved | X | | | |

| C. Specific Storm and Sample QA/QC Criteria | Lucky | Whitewater | Main | Americana | AS_6 | Program Criteria | Met | Qualify | Reject |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | 0.01" | 0.01" | 0.00" | 0.00"/0.01" | 0.00"/0.01" | < 0.11" in 72 hrs | X | | |
| 2. Precipitation (inches) | 0.20" | 0.18" | 0.21" | 0.21"/0.23" | 0.21"/0.23" | > 0.10" | X | | |
| 3. Sampled amount (% of total run-off) | 93% | 54% | 98% | 74% | 47% | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | X Lucky, Main | X WW, Americana | X AS_6 |
| 4. Composite sample duration (hours) | 4 | 1.5 | 6 | 3.5 | 1 | | | | |
| 4. Ecoli sample holding time (hours) | — | — | — | — | — | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | | | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | 14 | 16 | 13 | 16 | 15.5 | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

- No grab samples targeted for this storm.
- Whitewater and Americana composite samples qualified due to lack of representativeness (50-75%)
- AS_6 rejected due to lack of representativeness (<50%)
- Due to forecast changes following station setup (low confidence in overnight rain) decision was made not to mobilize sampling team.

**Reviewed by** Steven Turner **Date** 2/26/25 **Approved by** Monica Lowe **Date** 2/26/25

Updated 220718 TL

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

Expected Precipitation Depth = 0.11
Aliquots per Sample = 17

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 6582.5 | **387** |
| Whitewater | 498 | 0.069 | 13621.3 | **801** |
| Main | 79 | 0.246 | 7760.0 | **456** |
| Main Alt | 60 | 0.200 | 4791.6 | **282** |
| Americana | 875 | 0.144 | 50311.8 | **2960** |
| Americana Alt | 869 | 0.144 | 49966.8 | **2939** |
| AS_6 | 204 | 0.046 | 3747.0 | **220** |
| State | 34 | 0.127 | 1724.2 | **101** |

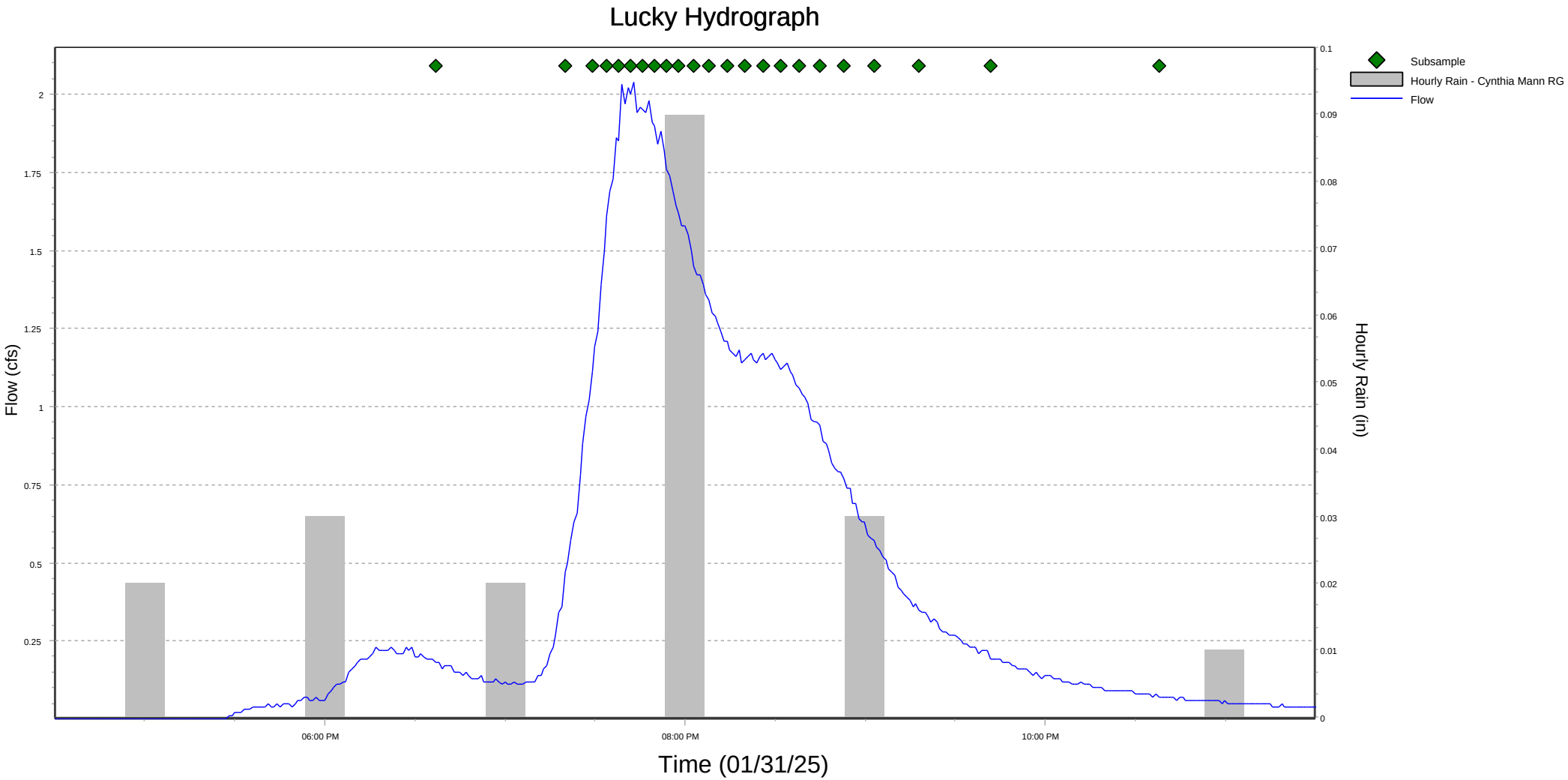
Notes:

Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

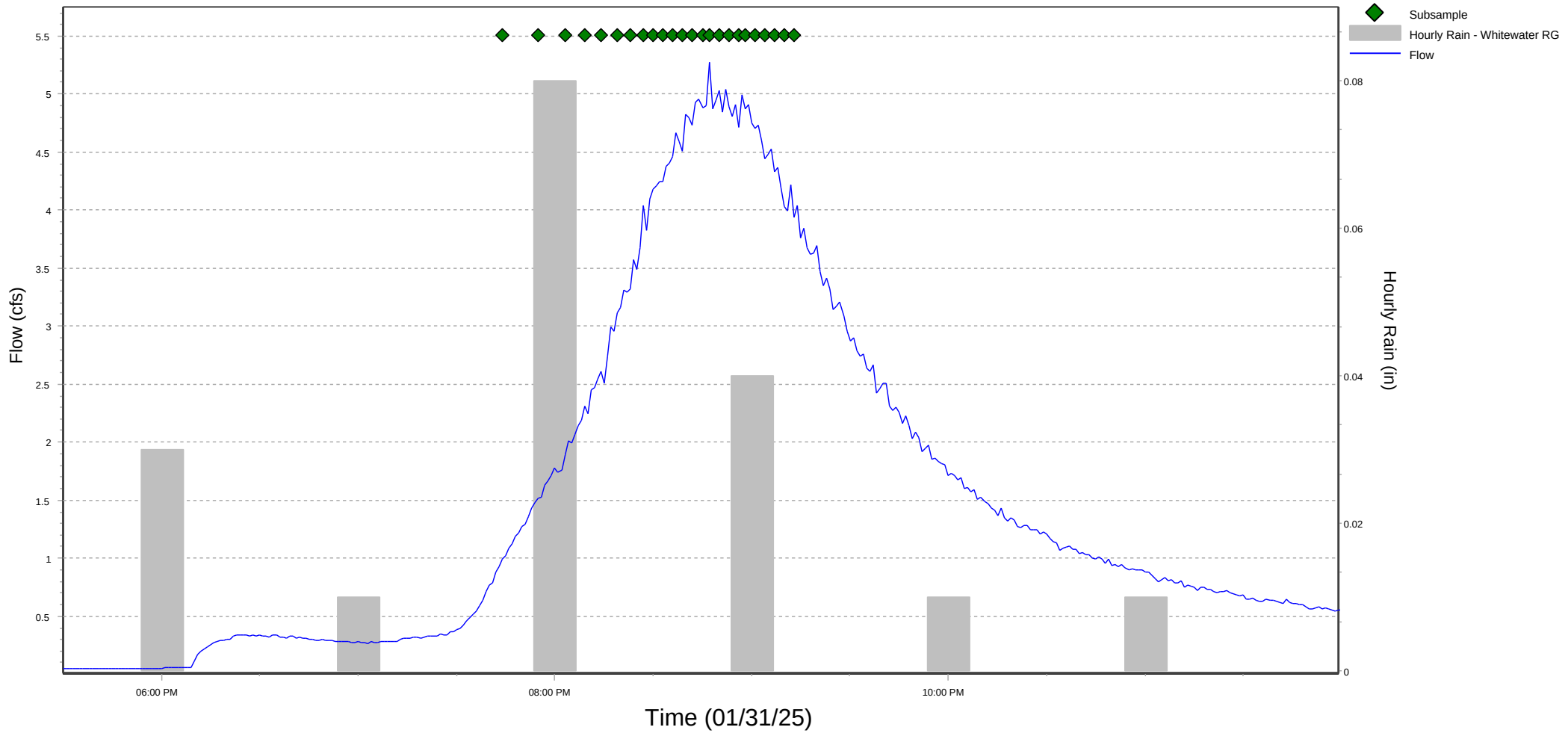
Where precip (ft) is the measured amount from local rain guage, and volume ($ft^3$) is the measured discharge, and area ($ft^2$) is the watershed area

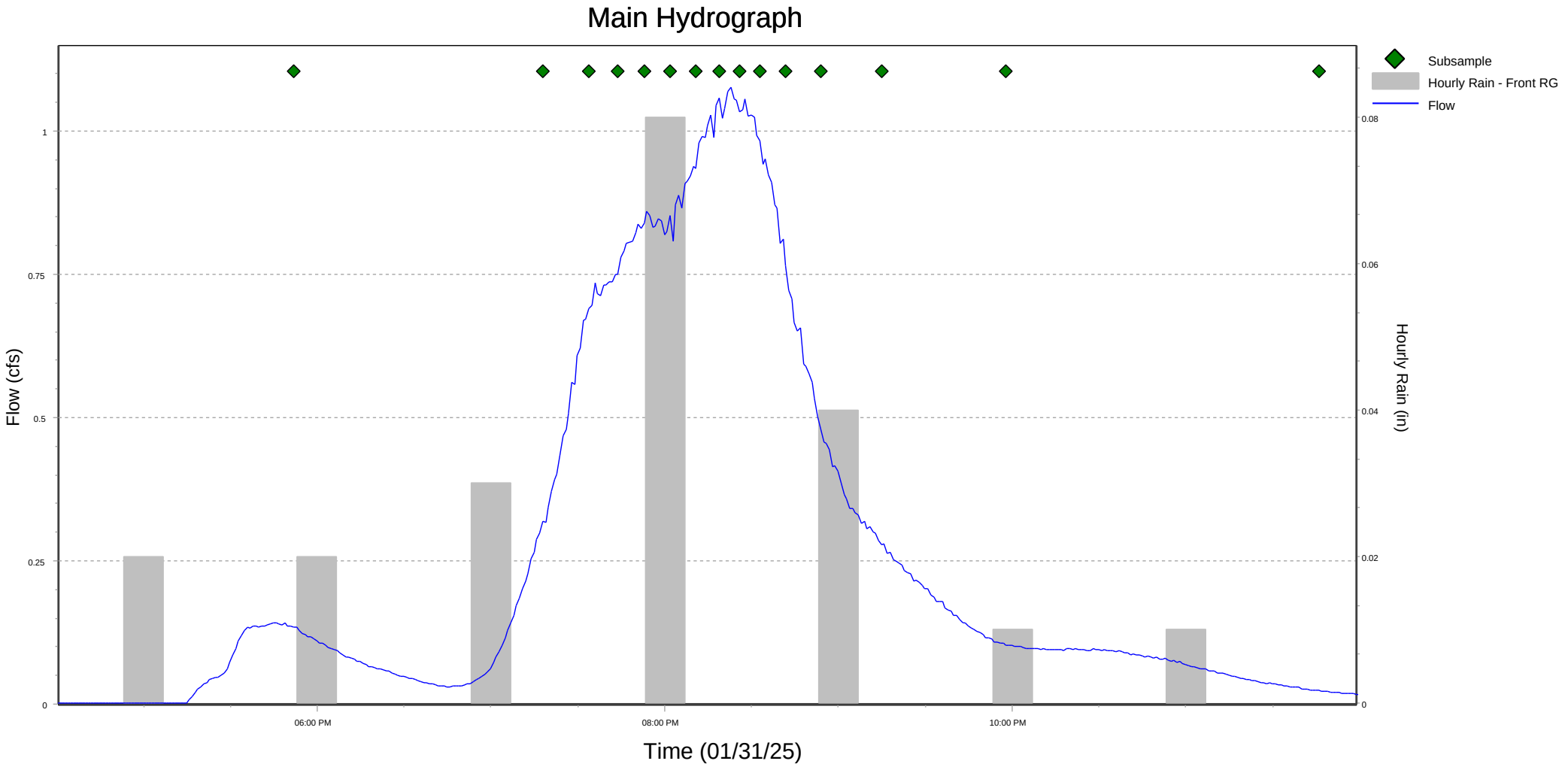
Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

# Attachment B: Storm Event Hydrographs

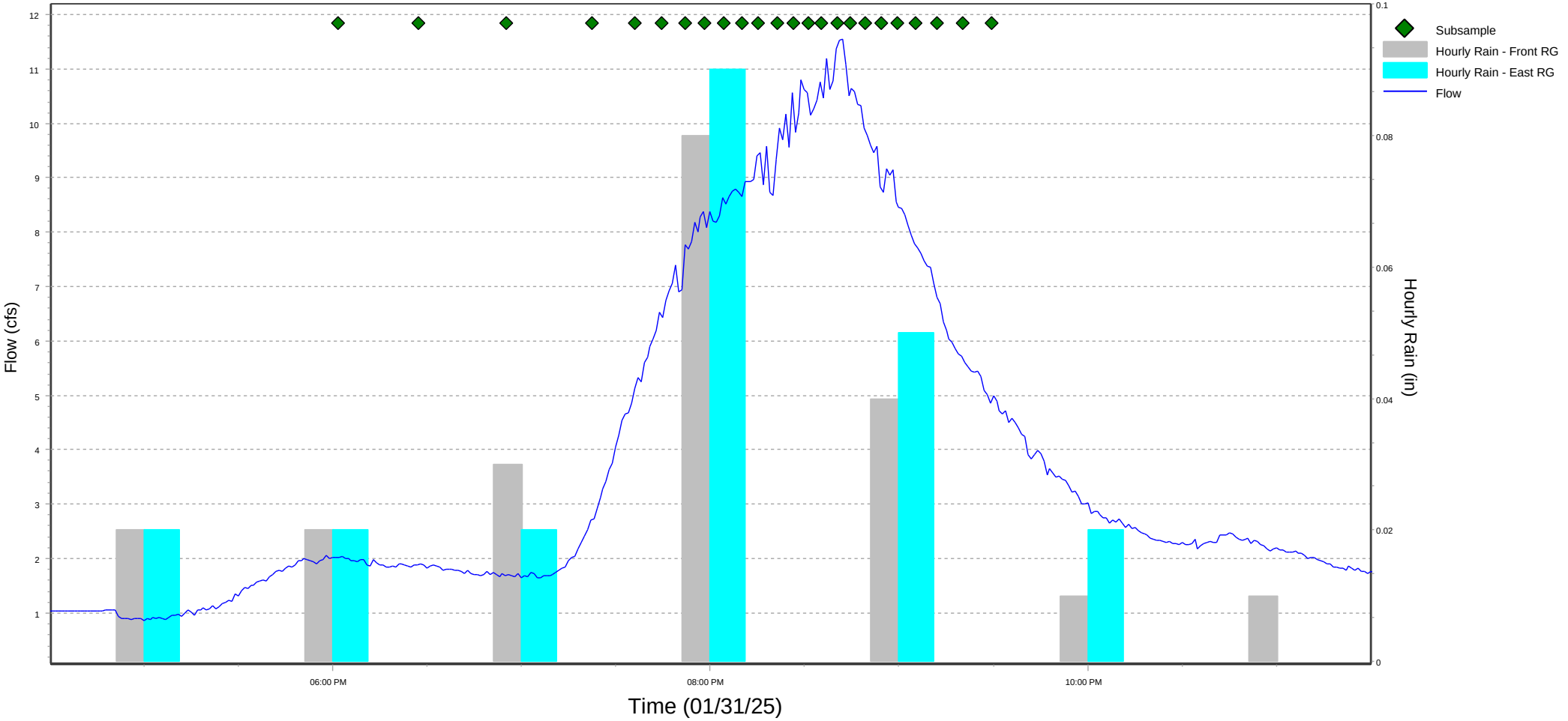

Lucky Hydrograph
Subsample
Hourly Rain - Cynthia Mann RG
Flow
Flow (cfs)
Hourly Rain (in)
Time (01/31/25)
06:00 PM
08:00 PM
10:00 PM
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0

# Whitewater Hydrograph

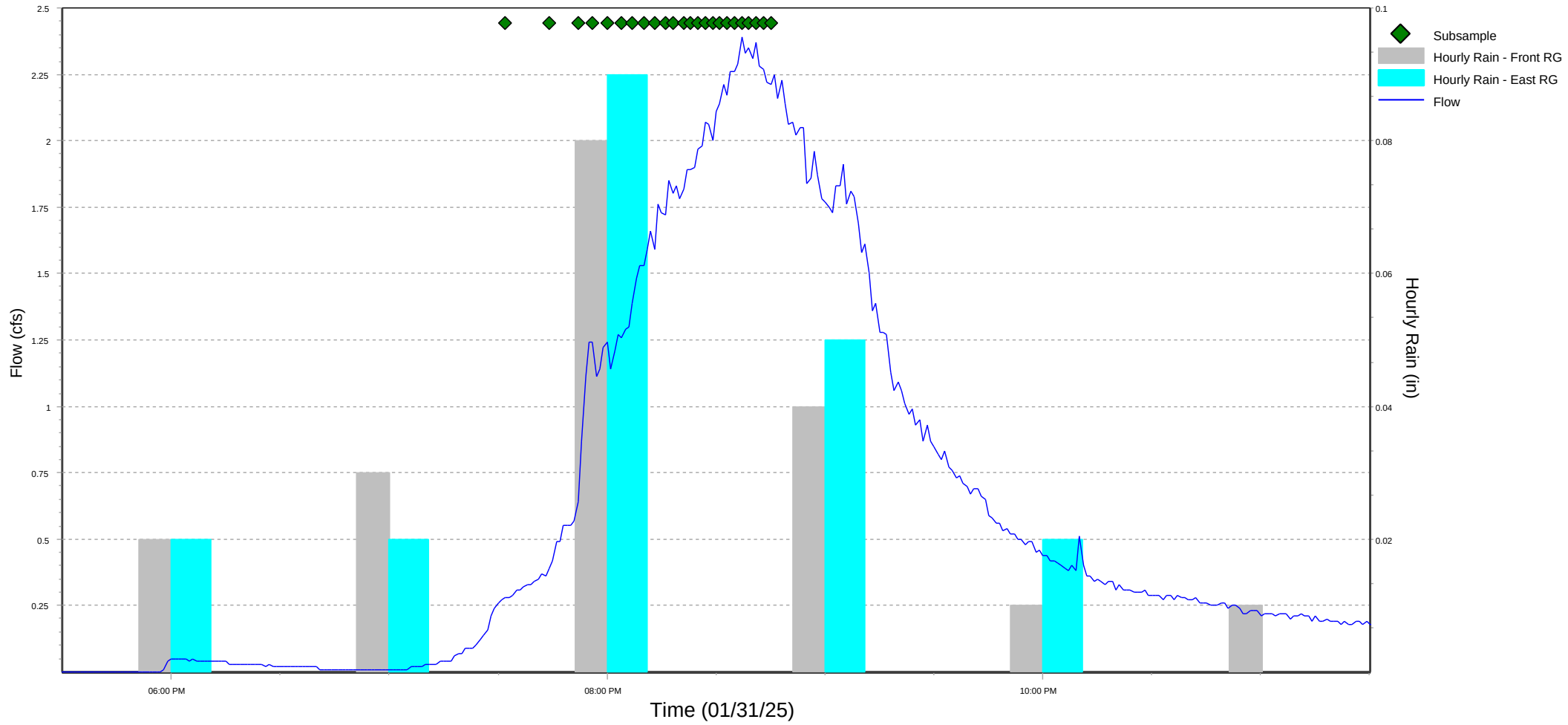



Main Hydrograph
Subsample
Hourly Rain - Front RG
Flow
Flow (cfs)
Hourly Rain (in)
1
0.75
0.5
0.25
0
0.08
0.06
0.04
0.02
0
06:00 PM
08:00 PM
10:00 PM
Time (01/31/25)

# Americana Hydrograph



# AS_6 Hydrograph



# Attachment C: Field Forms

# Set Up/ Shut Down Form – HACH (Lucky, [redacted], AS_6)

**STATION:** Lucky

## SET UP

**Personnel:** ~~KC~~ KS, ST

**Date/Time On-Site:** 1/30/25 1309

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 13:13 | 1.61 | 0.00 | 0.00 | 13.2 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 2.61 |
| **Deadband:** | 1 |
| **Trigger Volume:** | 2895 gal |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:**
Replaced sampler desiccant.

off-site: 1332

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/3/25 1410

| Time | Level (in) | Flow ~~(cfs)~~ GPM | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 14:12 | 6.00 | 352.93 | 1.13 | – | 12.3 |
| **Downloaded to:** | | Stevens USB | | | |
| | | | | | |

| If flow monitoring is complete: | If continuing to monitor flow: |
|---|---|
| ☒ Halt program on flowmeter | ☐ Replace flowmeter battery |
| ☒ Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| ☒ Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:** No grab taken. Composite bottle was left running overnight.

off site: 14:20

# Composite Sample Collection

**STATION:** Lucky
**Personnel:** ST. KS

**Bottle** 1 **of** 1
**Date/Time On-Site:** 2/1 9:31

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250131-03 -WC |
| **Approx Sample Volume (mL):** | 12,500 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Grey |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/31 1837 | Success | 13 | 1/31 2014 | Success |
| 2 | 1920 | | 14 | 2020 | |
| 3 | 1929 | | 15 | 2026 | |
| 4 | 1934 | | 16 | 2032 | |
| 5 | 1938 | | 17 | 2038 | |
| 6 | 1942 | | 18 | 2045 | |
| 7 | 1946 | | 19 | 2053 | |
| 8 | 1950 | | 20 | 2103 | |
| 9 | 1954 | | 21 | 2118 | |
| 10 | 1958 | | 22 | 2142 | |
| 11 | 2003 | | 23 | 2238 | |
| 12 | 2008 | | 24 | | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle, add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State, Main)

**TATION:** Whitewater

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 1/30/25 1434

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1434 | 1.97 | 0.05 | 0.22 | — |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 3.15 |
| **Hysteresis:** | 1.0 |
| **Flow Pulse Interval:** | 801 cf |

**On-Site**
- [x] Replace flowmeter battery, install sampler battery
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Set sampler program parameters
- [x] Check date/time on sampler
- [x] Verify all cable and tubing connections
- [x] Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- [x] Direct or Remote; Date/time 1/30/25 1439
- [x] Retrieve data and review recent flow history
- [x] Change Wireless Power Control to Storm Event
- [x] Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: On Trigger, and set Sampler Enable equation
- [x] Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 1/30/25 1500

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/3/25 10:44

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 10:44 | 3.90 | 0.65 | 1.03 | - |
| | **Downloaded to:** | Stevens laptop | | |
| | | | | |

**On-Site**
- [x] Replace flowmeter battery
- [x] Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- [x] Direct or Remote; Date/time 2/3 10:44
- [x] Retrieve data
- [x] Change Wireless Power Control to Dry Weather
- [x] Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: Never

**Comments:** No grab taken. Composite bottle left running overnight.

**Date/Time Off-Site:** 2/3/25 10:50

Revised 240123 KC

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 1 **of** 1

**Personnel:** ST, KJ **Date/Time On-Site:** 2/1 9:54

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250131-11 | -WC |
| **Approx Sample Volume (mL):** | 13,250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/31 1942 | Success | 13 | 1/31 2041 | Success |
| 2 | 1953 | | 14 | 2043 | |
| 3 | 2001 | | 15 | 2046 | |
| 4 | 2007 | | 16 | 2049 | |
| 5 | 2013 | | 17 | 2051 | |
| 6 | 2018 | | 18 | 2054 | |
| 7 | 2022 | | 19 | 2057 | |
| 8 | 2025 | | 20 | 2100 | |
| 9 | 2029 | | 21 | 2103 | |
| 10 | 2032 | | 22 | 2106 | |
| 11 | 2035 | | 23 | 2109 | |
| 12 | 2038 | | 24 | 2112 | |

**Comments:** Composite bottle left overnight. Sampling team went home because of low confidence in the rain. Only 1 bottle at this site.

**Date/Time Off-Site:** 2/1 10:16

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State) and Main)

**TATION:** Main

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 1/31/25 11:20

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:25 | 1.448 | 0.00 | 0.04 | 11.7 |
| | | | | |
| | | | | |
| **Enable Condition:** | | 2.4 | | |
| **Hysteresis:** | | 1 | | |
| **Flow Pulse Interval:** | | 456 cf | | |

**On-Site**
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 1/31 11:25
- ☐ Retrieve data and review recent flow history
- ☐ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 1/31/25 ~~11~~ ST 11:31

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/3/25 ~~11:12~~ 15:01 ST

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 15:17 | ~~7.~~ 3.526 | ~ | 0.66a | 11.63 |
| ~~11:16~~ | ~~9.51~~ | 3.92 | 2.826 | 11.53v ST |
| **Downloaded to:** | | Stevens ~~laptop~~ ST USB | | |
| | | | | |

**On-Site**
- ☐ Replace flowmeter battery
- ☐ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed) 15:15
- ☒ Direct or Remote; Date/time 2/3/25 ~~11:17~~
- ☒ Retrieve data
- ☐ Change Wireless Power Control to Dry Weather
- ☐ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: Never

**Comments:** No grab taken. Composite bottle left running overnight.

**Date/Time Off-Site:** 2/3/25 15:22

# Composite Sample Collection

**STATION:** Main **Bottle** 1 **of** 1

**Personnel:** LS, ST **Date/Time On-Site:** 2/1/25 1103

| | | | |
|---|---|---|---|
| ☒ Halt sampler program | | | |
| ☒ Put lid on sample bottle; label sample bottle | | | |
| **Sample ID:** | 250131-12 | -WC | |
| **Approx Sample Volume (mL):** | 8750 mL | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | | |
| **QA/QC Sample ID:** | | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/31/25 1751 | Success | 13 | 1/31/25 2115 | Success |
| 2 | 1918 | ↓ | 14 | 2158 | ↓ |
| 3 | 1933 | | 15 | 2346 | |
| 4 | 1944 | | 16 | | |
| 5 | 1953 | | 17 | | |
| 6 | 2002 | | 18 | | |
| 7 | 2010 | | 19 | | |
| 8 | 2018 | | 20 | | |
| 9 | 2025 | | 21 | | |
| 10 | 2033 | | 22 | | |
| 11 | 2042 | | 23 | | |
| 12 | ↓ 2054 | ↓ | 24 | | |

**Comments:**

**Date/Time Off-Site:** 2/1/25 1110

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State), Main)

**TATION:** Americana

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 1/30/25 1623

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1623 | 4.00 | 0.85 | 1.694 | 11.78 |
| | | | | |
| | | | | |
| **Enable Condition:** | 5.09" | | | |
| **Hysteresis:** | 1.0" | | | |
| **Flow Pulse Interval:** | 2960 cf | | | |

**On-Site**

- [x] Replace flowmeter battery, install sampler battery
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Set sampler program parameters
- [x] Check date/time on sampler
- [x] Verify all cable and tubing connections
- [x] Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- [x] Direct or Remote; Date/time 1/30/25 1630
- [x] Retrieve data and review recent flow history
- [x] Change Wireless Power Control to Storm Event
- [x] Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: On Trigger, and set Sampler Enable equation
- [x] Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 1/30 1640

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/3/25 11:12

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:16 | 7.81 | 3.92 | 2.826 | 11.53 |
| **Downloaded to:** | Stevens laptop. | | | |
| | | | | |

**On-Site**

- [x] Replace flowmeter battery
- [x] Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- [x] Direct or Remote; Date/time 2/3 11:17
- [x] Retrieve data
- [x] Change Wireless Power Control to Dry Weather
- [x] Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: Never

**Comments:**

No grab taken. Composite bottle was left running overnight.

**Date/Time Off-Site:** 2/3/25 15:05

# Composite Sample Collection

**STATION:** Americana **Bottle** 1 **of** 1

**Personnel:** K.J., ST **Date/Time On-Site:** 2/1/25 1045

| | |
|---|---|
| ☑ Halt sampler program | |
| ☑ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | ~~B~~ KS 250131-14 -WC |
| **Approx Sample Volume (mL):** | 14750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/31/25 1800 | Success | 13 | 1/31/25 2025 | Success |
| 2 | 1826 | | 14 | 2030 | |
| 3 | 1854 | | 15 | 2034 | |
| 4 | 1921 | | 16 | 2039 | |
| 5 | 1935 | | 17 | 2043 | |
| 6 | 1943 | | 18 | 2048 | |
| 7 | 1951 | | 19 | 2053 | |
| 8 | 1957 | | 20 | 2058 | |
| 9 | 2003 | | 21 | 2104 | |
| 10 | 2009 | | 22 | 2111 | |
| 11 | 2014 | | 23 | 2119 | |
| 12 | 2020 | | 24 | 2128 | |

**Comments:** Only 1 bottle at this site. Sampling team went home because of low confidence in the rain.

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☑ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☑ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☑ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – HACH (Lucky, [redacted] AS_6)

**STATION:** AS-6

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 1/30/25 1704

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1704 | 0.51 | 0.00 | 0.00 | 13.2 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 1.5" |
| **Deadband:** | 1" |
| **Trigger Volume:** | 1646 gal |

- [x] Install batteries on flowmeter and sampler
- [ ] Perform decon. cycle
- [ ] Install 15L sample bottle, with ice
- [ ] Leave bottle lid at site, in a clean re-sealable plastic bag
- [ ] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:**

**Date/Time Off-Site:** 1/30/25 17:13

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/3/25 1436

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 1437 | 4.44 | 316.13 | 1.56 | ~. | 12.4 |
| **Downloaded to:** | | Stevens USD | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| [x] Halt program on flowmeter | [ ] Replace flowmeter battery |
| [x] Download flowmeter data | [ ] Reset logging interval to 15 minutes |
| [x] Remove flowmeter battery | [ ] Change velocity cutoff to 0.02 fps |
| | [ ] Start program |
| | [ ] Verify running |

**Comments:** No grab taken. Composite bottle was left running overnight.

**Date/Time Off-Site:** 2/3/25 14:50

# Composite Sample Collection

**STATION:** AS_6 **Bottle** 1 **of** 1

**Personnel:** KJ, ST **Date/Time On-Site:** 2/1/25 ~~1045~~ 1035

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250131-206 -WC |
| **Approx Sample Volume (mL):** | 14750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1/31/25 1932 | Success | 13 | 1/31/25 2023 | Success |
| 2 | 1944 | " | 14 | 2025 | |
| 3 | 1952 | | 15 | 2027 | |
| 4 | 1956 | | 16 | 2029 | |
| 5 | 2000 | | 17 | 2031 | |
| 6 | 2004 | | 18 | 2033 | |
| 7 | 2007 | | 19 | 2035 | |
| 8 | 2010 | | 20 | 2037 | |
| 9 | 2013 | | 21 | 2039 | |
| 10 | 2016 | | 22 | 2041 | |
| 11 | 2018 | | 23 | 2043 | |
| 12 | 2021 | | 24 | 2045 | |

**Comments:** Only 1 bottle at this site. Sampling team went home because of low confidence in the rain.

**Date/Time Off-Site:** 2/1/25 1039

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle, add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00389-01 | ACST1C | 250131-03-WC | Water | | 1/31/25 22:38 | 2/1/25 11:36 |
| AC00389-02 | ACST1C | 250131-11-WC | Water | | 1/31/25 21:12 | 2/1/25 11:36 |
| AC00389-03 | ACST1C | 250131-12-WC | Water | | 1/31/25 23:46 | 2/1/25 11:36 |
| AC00389-04 | ACST1C | 250131-14-WC | Water | | 1/31/25 21:28 | 2/1/25 11:36 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250131-03-WC |
| Date/Time Collected: | 01/31/2025 18:37 - 01/31/2025 22:38 | | |
| Lab Number: | AC00389-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| mmonia, as N | B250369 | 0.649 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 02/03/25 | 2/3/25 11:25 | RHC | |
| OD5 | B250360 | 14.5 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/01/25 | 2/6/25 10:30 | LRF | |
| hloride | B250467 | 6.07 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/13/25 | 2/13/25 12:13 | RHC | |
| OD | B250361 | 89.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/01/25 | 2/1/25 15:01 | MCB | |
| itrate-Nitrite, as N | B250387 | 0.242 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/04/25 | 2/4/25 12:28 | JAL | |
| KN | B250406 | 1.77 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 02/06/25 | 2/6/25 15:24 | RKG | |
| otal Dissolved Solids | B250396 | 46.3 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/07/25 | 2/8/25 13:02 | RKG | |
| otal Suspended Solids | B250364 | 49.2 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/02/25 | 2/2/25 12:57 | ASE | |
| urbidity | B250362 | 36.4 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 9:06 | ASE | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| rthophosphate, as P | B250363 | 0.117 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 11:30 | BAK | |
| **Total Metals** | | | | | | | | | | |
| lercury | B250494 | 0.0111 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 02/13/25 | 2/13/25 12:54 | SAS | |
| rsenic | B250508 | 1.4 | ug/L | 0.050 | 0.050 | EPA 200.8 | 02/16/25 | 2/17/25 15:38 | DMW | |
| admium | B250508 | 0.055 | ug/L | 0.020 | 0.020 | EPA 200.8 | 02/16/25 | 2/17/25 15:38 | DMW | |
| alcium | B250335 | 5.77 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/03/25 | 2/10/25 11:02 | SMC | |
| ead | B250508 | 1.5 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/16/25 | 2/17/25 15:38 | DMW | |
| lagnesium | B250335 | 726 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/03/25 | 2/10/25 11:02 | SMC | |
| hosphorus as P | B250335 | 0.271 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/03/25 | 2/10/25 11:02 | SMC | |
| lardness | B250335 | 17.4 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/03/25 | 2/10/25 11:02 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| admium | B250403 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:32 | DMW | U |
| opper | B250403 | 2.3 | ug/L | 0.14 | 0.14 | EPA 200.8 | 02/15/25 | 2/15/25 14:32 | DMW | |
| ead | B250403 | 0.083 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:32 | DMW | |
| inc | B250403 | 28.1 | ug/L | 0.50 | 0.50 | EPA 200.8 | 02/15/25 | 2/15/25 14:32 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*he contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*o duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250131-11-WC |
| Date/Time Collected: | 01/31/2025 19:42 - 01/31/2025 21:12 | | |
| Lab Number: | AC00389-02 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250369 | 0.925 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 02/03/25 | 2/3/25 11:11 | RHC | |
| BOD5 | B250360 | 20.1 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/01/25 | 2/6/25 10:25 | LRF | |
| Chloride | B250467 | 83.2 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/13/25 | 2/13/25 12:39 | RHC | |
| COD | B250361 | 140 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/01/25 | 2/1/25 15:33 | MCB | |
| Nitrate-Nitrite, as N | B250387 | 0.842 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/04/25 | 2/4/25 12:33 | JAL | |
| TKN | B250406 | 2.46 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 02/06/25 | 2/6/25 15:26 | RKG | |
| Total Dissolved Solids | B250396 | 230 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/07/25 | 2/8/25 13:03 | RKG | |
| Total Suspended Solids | B250364 | 116 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/02/25 | 2/2/25 12:58 | ASE | |
| Turbidity | B250362 | 113 | NTU | 1.2 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 8:47 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250363 | 0.182 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 11:35 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250494 | 0.0115 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 02/13/25 | 2/13/25 13:08 | SAS | |
| Arsenic | B250508 | 4.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 02/16/25 | 2/17/25 15:48 | DMW | |
| Cadmium | B250508 | 0.12 | ug/L | 0.020 | 0.020 | EPA 200.8 | 02/16/25 | 2/17/25 15:48 | DMW | |
| Calcium | B250335 | 27.6 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/03/25 | 2/10/25 11:05 | SMC | |
| Lead | B250508 | 7.7 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/16/25 | 2/17/25 15:48 | DMW | |
| Magnesium | B250335 | 6380 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/03/25 | 2/10/25 11:05 | SMC | |
| Phosphorus as P | B250335 | 0.418 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/03/25 | 2/10/25 11:05 | SMC | |
| Hardness | B250335 | 95.2 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/03/25 | 2/10/25 11:05 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250403 | 0.012 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:41 | DMW | |
| Copper | B250403 | 3.5 | ug/L | 0.14 | 0.14 | EPA 200.8 | 02/15/25 | 2/15/25 14:41 | DMW | |
| Lead | B250403 | 0.083 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:41 | DMW | |
| Zinc | B250403 | 22.0 | ug/L | 0.50 | 0.50 | EPA 200.8 | 02/15/25 | 2/15/25 14:41 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250131-12-WC |
| Date/Time Collected: | 01/31/2025 17:51 - 01/31/2025 23:46 | | |
| Lab Number: | AC00389-03 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| mmonia, as N | B250369 | 1.08 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 02/03/25 | 2/3/25 11:08 | RHC | |
| OD5 | B250360 | 15.8 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/01/25 | 2/6/25 10:16 | LRF | |
| hloride | B250467 | 59.4 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/13/25 | 2/13/25 13:06 | RHC | |
| OD | B250361 | 134 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/01/25 | 2/1/25 15:20 | MCB | |
| itrate-Nitrite, as N | B250387 | 0.285 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/04/25 | 2/4/25 12:34 | JAL | |
| KN | B250406 | 2.17 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 02/06/25 | 2/6/25 15:27 | RKG | |
| otal Dissolved Solids | B250396 | 140 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/07/25 | 2/8/25 13:04 | RKG | |
| otal Suspended Solids | B250364 | 89.0 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/02/25 | 2/2/25 12:22 | ASE | |
| urbidity | B250362 | 86.5 | NTU | 1.2 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 9:23 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| rthophosphate, as P | B250363 | 0.0795 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 11:36 | BAK | |
| **Total Metals** | | | | | | | | | | |
| lercury | B250465 | 0.0138 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 02/11/25 | 2/11/25 14:18 | SAS | |
| rsenic | B250508 | 2.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 02/16/25 | 2/17/25 15:50 | DMW | |
| admium | B250508 | 0.12 | ug/L | 0.020 | 0.020 | EPA 200.8 | 02/16/25 | 2/17/25 15:50 | DMW | |
| alcium | B250335 | 9.72 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/03/25 | 2/10/25 11:21 | SMC | |
| ead | B250508 | 7.2 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/16/25 | 2/17/25 15:50 | DMW | |
| lagnesium | B250335 | 2510 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/03/25 | 2/10/25 11:21 | SMC | |
| hosphorus as P | B250335 | 0.215 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/03/25 | 2/10/25 11:21 | SMC | |
| lardness | B250335 | 34.6 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/03/25 | 2/10/25 11:21 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| admium | B250403 | 0.019 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:44 | DMW | |
| opper | B250403 | 4.7 | ug/L | 0.14 | 0.14 | EPA 200.8 | 02/15/25 | 2/15/25 14:44 | DMW | |
| ead | B250403 | 0.063 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:44 | DMW | |
| inc | B250403 | 40.8 | ug/L | 0.50 | 0.50 | EPA 200.8 | 02/15/25 | 2/15/25 14:44 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*he contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*lo duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250131-14-WC |
| Date/Time Collected: | 01/31/2025 18:00 - 01/31/2025 21:28 | | |
| Lab Number: | AC00389-04 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250369 | 0.851 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 02/03/25 | 2/3/25 11:04 | RHC | |
| BOD5 | B250360 | 22.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/01/25 | 2/6/25 10:07 | LRF | |
| Chloride | B250467 | 176 | mg/L | 0.0400 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/13/25 | 2/13/25 19:44 | RHC | D |
| COD | B250361 | 153 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/01/25 | 2/1/25 15:48 | MCB | |
| Nitrate-Nitrite, as N | B250387 | 0.734 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/04/25 | 2/4/25 12:36 | JAL | |
| TKN | B250406 | 2.31 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 02/06/25 | 2/6/25 15:28 | RKG | |
| Total Dissolved Solids | B250396 | 378 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/07/25 | 2/8/25 13:05 | RKG | |
| Total Suspended Solids | B250364 | 118 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/02/25 | 2/2/25 13:13 | ASE | |
| Turbidity | B250362 | 97.7 | NTU | 1.2 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 9:01 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250363 | 0.157 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 11:37 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250465 | 0.0144 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 02/11/25 | 2/11/25 14:22 | SAS | |
| Arsenic | B250508 | 3.7 | ug/L | 0.050 | 0.050 | EPA 200.8 | 02/16/25 | 2/17/25 15:52 | DMW | |
| Cadmium | B250508 | 0.14 | ug/L | 0.020 | 0.020 | EPA 200.8 | 02/16/25 | 2/17/25 15:52 | DMW | |
| Calcium | B250335 | 29.9 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/03/25 | 2/10/25 11:25 | SMC | |
| Lead | B250508 | 7.0 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/16/25 | 2/17/25 15:52 | DMW | |
| Magnesium | B250335 | 5820 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/03/25 | 2/10/25 11:25 | SMC | |
| Phosphorus as P | B250335 | 0.365 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/03/25 | 2/10/25 11:25 | SMC | |
| Hardness | B250335 | 98.5 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/03/25 | 2/10/25 11:25 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250403 | 0.024 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:46 | DMW | |
| Copper | B250403 | 3.8 | ug/L | 0.14 | 0.14 | EPA 200.8 | 02/15/25 | 2/15/25 14:46 | DMW | |
| Lead | B250403 | 0.091 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:46 | DMW | |
| Zinc | B250403 | 35.0 | ug/L | 0.50 | 0.50 | EPA 200.8 | 02/15/25 | 2/15/25 14:46 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B250360** | | | | | | | | | |
| **Blank (B250360-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 02/06/2025 | LRF | U |
| **LCS (B250360-BS1)** | | | | | | | | | |
| BOD5 | | | 87.0 | 84.6-115.4 | | | 02/06/2025 | LRF | |
| **LCS (B250360-BS2)** | | | | | | | | | |
| BOD5 | | | 90.2 | 84.6-115.4 | | | 02/06/2025 | LRF | |
| **Duplicate (B250360-DUP1)** | Source ID: AC00390-01 | | | | | | | | |
| BOD5 | | | | | 5.93 | 30 | 02/06/2025 | LRF | |
| **Batch: B250361** | | | | | | | | | |
| **Blank (B250361-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 02/01/2025 | MCB | U |
| **LCS (B250361-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 02/01/2025 | MCB | |
| **Duplicate (B250361-DUP1)** | Source ID: AC00391-01 | | | | | | | | |
| COD | | | | | 1.34 | 10 | 02/01/2025 | MCB | |
| **Batch: B250362** | | | | | | | | | |
| **Blank (B250362-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 02/02/2025 | ASE | U |
| **LCS (B250362-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 02/02/2025 | ASE | |
| **Duplicate (B250362-DUP1)** | Source ID: AC00389-01 | | | | | | | | |
| Turbidity | | | | | 0.547 | 25 | 02/02/2025 | ASE | |
| **Batch: B250364** | | | | | | | | | |
| **Blank (B250364-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 02/02/2025 | ASE | U |
| **LCS (B250364-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 102 | 90-110 | | | 02/02/2025 | ASE | |
| **Duplicate (B250364-DUP1)** | Source ID: AC00389-02 | | | | | | | | |
| Total Suspended Solids | | | | | 0.802 | 20 | 02/02/2025 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250369** | | | | | | | | | |
| **Blank (B250369-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 02/03/2025 | RHC | U |
| **Blank (B250369-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 02/03/2025 | RHC | U |
| **LCS (B250369-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 98.7 | 90-110 | | | 02/03/2025 | RHC | |
| **Duplicate (B250369-DUP1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | | | 0.0858 | 20 | 02/03/2025 | RHC | D |
| **Matrix Spike (B250369-MS1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | 101 | 84-115 | | | 02/03/2025 | RHC | D |
| **Matrix Spike Dup (B250369-MSD1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | 95.5 | 84-115 | 4.28 | 20 | 02/03/2025 | RHC | D |
| **Batch: B250387** | | | | | | | | | |
| **Blank (B250387-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/04/2025 | JAL | U |
| **Blank (B250387-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/04/2025 | JAL | U |
| **LCS (B250387-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.6 | 90-110 | | | 02/04/2025 | JAL | |
| **LCS (B250387-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 99.6 | 90-110 | | | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.159 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 1.34 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.158 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 2.49 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.1 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.9 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.7 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.9 | 90-110 | 0.699 | 10 | 02/04/2025 | JAL | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250387 (Continued)** | | | | | | | | | |
| **Matrix Spike Dup (B250387-MSD2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.1 | 90-110 | 0.148 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.2 | 90-110 | 0.538 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.5 | 90-110 | 0.134 | 10 | 02/04/2025 | JAL | |
| **Batch: B250396** | | | | | | | | | |
| **Blank (B250396-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 02/08/2025 | RKG | U |
| **LCS (B250396-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 91.7 | 90-110 | | | 02/08/2025 | RKG | |
| **Duplicate (B250396-DUP1)** Source ID: WB03605-06 | | | | | | | | | |
| Total Dissolved Solids | | | | | 0.596 | 10 | 02/07/2025 | RKG | |
| **Batch: B250406** | | | | | | | | | |
| **Blank (B250406-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 02/06/2025 | RKG | U |
| **Blank (B250406-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 02/06/2025 | RKG | U |
| **LCS (B250406-BS1)** | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 02/06/2025 | RKG | |
| **LCS (B250406-BS2)** | | | | | | | | | |
| TKN | | | 101 | 80-120 | | | 02/06/2025 | RKG | |
| **Duplicate (B250406-DUP1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | | | 0.264 | 20 | 02/06/2025 | RKG | D |
| **Duplicate (B250406-DUP2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | | | 0.654 | 20 | 02/06/2025 | RKG | D |
| **Duplicate (B250406-DUP3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | | | 0.355 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | 102 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | 97.9 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | 105 | 80-120 | 1.14 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.412 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | 108 | 80-120 | 3.38 | 20 | 02/06/2025 | RKG | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250467** | | | | | | | | | |
| **Blank (B250467-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 02/12/2025 | RHC | U |
| **LCS (B250467-BS1)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 02/12/2025 | RHC | |
| **Duplicate (B250467-DUP1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | | | 0.148 | 10 | 02/13/2025 | RHC | D |
| **Duplicate (B250467-DUP2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | | | 0.176 | 10 | 02/13/2025 | RHC | D |
| **Matrix Spike (B250467-MS1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | 97.7 | 90-110 | | | 02/13/2025 | RHC | D |
| **Matrix Spike (B250467-MS2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | 97.6 | 90-110 | | | 02/13/2025 | RHC | D |
| **Matrix Spike Dup (B250467-MSD1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | 97.6 | 90-110 | 0.0393 | 10 | 02/13/2025 | RHC | D |
| **Matrix Spike Dup (B250467-MSD2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | 97.0 | 90-110 | 0.261 | 10 | 02/13/2025 | RHC | D |
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B250363** | | | | | | | | | |
| **Blank (B250363-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 02/02/2025 | BAK | U |
| **LCS (B250363-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 95.4 | 90-110 | | | 02/02/2025 | BAK | |
| **Duplicate (B250363-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.119 | 10 | 02/02/2025 | BAK | |
| **Matrix Spike (B250363-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | 98.4 | 90-110 | | | 02/02/2025 | BAK | |
| **Matrix Spike Dup (B250363-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 1.03 | 10 | 02/02/2025 | BAK | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B250335** | | | | | | | | | |
| **Blank (B250335-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 02/10/2025 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 02/10/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 02/10/2025 | SMC | U |
| **LCS (B250335-BS1)** | | | | | | | | | |
| Calcium | | | 100 | 85-115 | | | 02/10/2025 | SMC | |
| Magnesium | | | 101 | 85-115 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 102 | 85-115 | | | 02/10/2025 | SMC | |
| **Duplicate (B250335-DUP1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | | | 1.09 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | | | 0.404 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | | | 1.39 | 20 | 02/10/2025 | SMC | |
| **Duplicate (B250335-DUP2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | | | 0.482 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | | | 0.318 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | | | 3.41 | 20 | 02/10/2025 | SMC | |
| **Matrix Spike (B250335-MS1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | | | 02/10/2025 | SMC | |
| Magnesium | | | 99.9 | 70-130 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 101 | 70-130 | | | 02/10/2025 | SMC | |
| **Matrix Spike (B250335-MS2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 02/10/2025 | SMC | |
| Magnesium | | | 99.4 | 70-130 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | | | 02/10/2025 | SMC | |
| **Matrix Spike Dup (B250335-MSD1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | 0.231 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.603 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | 1.78 | 20 | 02/10/2025 | SMC | |
| **Matrix Spike Dup (B250335-MSD2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | 0.228 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | 99.4 | 70-130 | 0.0390 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | 0.374 | 20 | 02/10/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B250465** | | | | | | | | | |
| **Blank (B250465-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 02/11/2025 | SAS | U |
| **LCS (B250465-BS1)** | | | | | | | | | |
| Mercury | | | 105 | 85-115 | | | 02/11/2025 | SAS | |
| **Duplicate (B250465-DUP1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 02/11/2025 | SAS | U |
| **Duplicate (B250465-DUP2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 02/11/2025 | SAS | U |
| **Matrix Spike (B250465-MS1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | 102 | 70-130 | | | 02/11/2025 | SAS | |
| **Matrix Spike (B250465-MS2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | 99.6 | 70-130 | | | 02/11/2025 | SAS | |
| **Matrix Spike Dup (B250465-MSD1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | 105 | 70-130 | 2.90 | 20 | 02/11/2025 | SAS | |
| **Matrix Spike Dup (B250465-MSD2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | 102 | 70-130 | 2.83 | 20 | 02/11/2025 | SAS | |
| **Batch: B250494** | | | | | | | | | |
| **Blank (B250494-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 02/13/2025 | SAS | U |
| **LCS (B250494-BS1)** | | | | | | | | | |
| Mercury | | | 100 | 85-115 | | | 02/13/2025 | SAS | |
| **Duplicate (B250494-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 02/13/2025 | SAS | U |
| **Matrix Spike (B250494-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Mercury | | | 96.6 | 70-130 | | | 02/13/2025 | SAS | |
| **Matrix Spike Dup (B250494-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Mercury | | | 87.7 | 70-130 | 8.69 | 20 | 02/13/2025 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B250508** | | | | | | | | | |
| **Blank (B250508-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 02/17/2025 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 02/17/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 02/17/2025 | DMW | U |
| **LCS (B250508-BS1)** | | | | | | | | | |
| Arsenic | | | 103 | 85-115 | | | 02/17/2025 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 02/17/2025 | DMW | |
| Lead | | | 106 | 85-115 | | | 02/17/2025 | DMW | |
| **Duplicate (B250508-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | | | 0.676 | 20 | 02/17/2025 | DMW | |
| Cadmium | | | | | 5.69 | 20 | 02/17/2025 | DMW | |
| Lead | | | | | 2.44 | 20 | 02/17/2025 | DMW | |
| **Matrix Spike (B250508-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | 103 | 70-130 | | | 02/17/2025 | DMW | |
| Cadmium | | | 105 | 70-130 | | | 02/17/2025 | DMW | |
| Lead | | | 106 | 70-130 | | | 02/17/2025 | DMW | |
| **Matrix Spike Dup (B250508-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | 102 | 70-130 | 0.698 | 20 | 02/17/2025 | DMW | |
| Cadmium | | | 105 | 70-130 | 0.433 | 20 | 02/17/2025 | DMW | |
| Lead | | | 105 | 70-130 | 0.541 | 20 | 02/17/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.
No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 02/24/2025 11:22

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B250403** | | | | | | | | | |
| **Blank (B250403-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 02/15/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 02/15/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 02/15/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 02/15/2025 | DMW | U |
| **LCS (B250403-BS1)** | | | | | | | | | |
| Cadmium | | | 103 | 85-115 | | | 02/15/2025 | DMW | |
| Copper | | | 101 | 85-115 | | | 02/15/2025 | DMW | |
| Lead | | | 103 | 85-115 | | | 02/15/2025 | DMW | |
| Zinc | | | 99.1 | 85-115 | | | 02/15/2025 | DMW | |
| **Duplicate (B250403-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 02/15/2025 | DMW | |
| Copper | | | | | 1.68 | 10 | 02/15/2025 | DMW | |
| Lead | | | | | 0.859 | 10 | 02/15/2025 | DMW | |
| Zinc | | | | | 0.383 | 10 | 02/15/2025 | DMW | |
| **Matrix Spike (B250403-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | 102 | 70-130 | | | 02/15/2025 | DMW | |
| Copper | | | 101 | 70-130 | | | 02/15/2025 | DMW | |
| Lead | | | 103 | 70-130 | | | 02/15/2025 | DMW | |
| Zinc | | | 98.3 | 70-130 | | | 02/15/2025 | DMW | |
| **Matrix Spike Dup (B250403-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | 101 | 70-130 | 0.741 | 10 | 02/15/2025 | DMW | |
| Copper | | | 99.7 | 70-130 | 1.18 | 10 | 02/15/2025 | DMW | |
| Lead | | | 100 | 70-130 | 2.90 | 10 | 02/15/2025 | DMW | |
| Zinc | | | 98.8 | 70-130 | 0.233 | 10 | 02/15/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| tem | Definition |
|---|---|
| ) | Data reported from a dilution |
| I | Analyte included in the analysis, but not detected |
| IR | No result for this parameter. |

### lethod Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*he contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*o duplication of this report is allowed, except in its entirety*

## Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Steven Turner
Kristen Jolliffe

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | BOD5 - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00385-01 | 1/31/25 | 1/31/25 | 1837 | 2238 | 250131-03-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 1 |
| -02 | ↓ | ↓ | 1942 | 2112 2346 | 250131-11-WC | KJ | X | | X | | | | | | | | | | | | | | | | | 1 |
| -03 | | | 1751 | ~~2342~~ | 250131-12-WC | KJ | X | | X | | | | | | | | | | | | | | | | | 1 |
| -04 | | | 1800 | 2128 | 250131-14-WC | KJ | X | | X | | | | | | | | | | | | | | | | | 1 |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 2/1/25 1135 | April L Stoffel 2/1/25 1136 | |

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00390-01 | ACST1C | 250131-206-WC | Water | | 1/31/25 20:45 | 2/1/25 11:36 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250131-206-WC |
| Date/Time Collected: | 01/31/2025 19:32 - 01/31/2025 20:45 | | |
| Lab Number: | AC00390-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| mmonia, as N | B250369 | 0.941 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 02/03/25 | 2/3/25 11:01 | RHC | |
| BOD5 | B250360 | 38.8 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/01/25 | 2/6/25 9:50 | LRF | |
| Chloride | B250467 | 37.6 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/13/25 | 2/13/25 13:59 | RHC | |
| COD | B250361 | 250 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/01/25 | 2/1/25 14:43 | MCB | |
| Nitrate-Nitrite, as N | B250387 | 0.267 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/04/25 | 2/4/25 12:37 | JAL | |
| TKN | B250406 | 4.33 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 02/06/25 | 2/6/25 15:29 | RKG | |
| Total Dissolved Solids | B250396 | 126 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/07/25 | 2/8/25 13:06 | RKG | |
| Total Suspended Solids | B250364 | 230 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/02/25 | 2/2/25 12:35 | ASE | |
| Turbidity | B250362 | 144 | NTU | 1.2 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 8:40 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250363 | 0.384 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/02/25 | 2/2/25 11:39 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250465 | 0.0145 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 02/11/25 | 2/11/25 14:25 | SAS | |
| Arsenic | B250508 | 2.8 | ug/L | 0.050 | 0.050 | EPA 200.8 | 02/16/25 | 2/17/25 15:55 | DMW | |
| Cadmium | B250508 | 0.15 | ug/L | 0.020 | 0.020 | EPA 200.8 | 02/16/25 | 2/17/25 15:55 | DMW | |
| Calcium | B250335 | 9.54 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/03/25 | 2/10/25 11:28 | SMC | |
| Lead | B250508 | 10.6 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/16/25 | 2/17/25 15:55 | DMW | |
| Magnesium | B250335 | 2350 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/03/25 | 2/10/25 11:28 | SMC | |
| Phosphorus as P | B250335 | 0.740 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/03/25 | 2/10/25 11:28 | SMC | |
| Hardness | B250335 | 33.5 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/03/25 | 2/10/25 11:28 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250403 | 0.015 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:49 | DMW | |
| Copper | B250403 | 4.6 | ug/L | 0.14 | 0.14 | EPA 200.8 | 02/15/25 | 2/15/25 14:49 | DMW | |
| Lead | B250403 | 0.27 | ug/L | 0.010 | 0.010 | EPA 200.8 | 02/15/25 | 2/15/25 14:49 | DMW | |
| Zinc | B250403 | 27.9 | ug/L | 0.50 | 0.50 | EPA 200.8 | 02/15/25 | 2/15/25 14:49 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B, was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B250360** | | | | | | | | | |
| **Blank (B250360-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 02/06/2025 | LRF | U |
| **LCS (B250360-BS1)** | | | | | | | | | |
| BOD5 | | | 87.0 | 84.6-115.4 | | | 02/06/2025 | LRF | |
| **LCS (B250360-BS2)** | | | | | | | | | |
| BOD5 | | | 90.2 | 84.6-115.4 | | | 02/06/2025 | LRF | |
| **Duplicate (B250360-DUP1)** | Source ID: AC00390-01 | | | | | | | | |
| BOD5 | | | | | 5.93 | 30 | 02/06/2025 | LRF | |
| **Batch: B250361** | | | | | | | | | |
| **Blank (B250361-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 02/01/2025 | MCB | U |
| **LCS (B250361-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 02/01/2025 | MCB | |
| **Duplicate (B250361-DUP1)** | Source ID: AC00391-01 | | | | | | | | |
| COD | | | | | 1.34 | 10 | 02/01/2025 | MCB | |
| **Batch: B250362** | | | | | | | | | |
| **Blank (B250362-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 02/02/2025 | ASE | U |
| **LCS (B250362-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 02/02/2025 | ASE | |
| **Duplicate (B250362-DUP1)** | Source ID: AC00389-01 | | | | | | | | |
| Turbidity | | | | | 0.547 | 25 | 02/02/2025 | ASE | |
| **Batch: B250364** | | | | | | | | | |
| **Blank (B250364-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 02/02/2025 | ASE | U |
| **LCS (B250364-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 102 | 90-110 | | | 02/02/2025 | ASE | |
| **Duplicate (B250364-DUP1)** | Source ID: AC00389-02 | | | | | | | | |
| Total Suspended Solids | | | | | 0.802 | 20 | 02/02/2025 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250369** | | | | | | | | | |
| **Blank (B250369-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 02/03/2025 | RHC | U |
| **Blank (B250369-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 02/03/2025 | RHC | U |
| **LCS (B250369-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 98.7 | 90-110 | | | 02/03/2025 | RHC | |
| **Duplicate (B250369-DUP1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | | | 0.0858 | 20 | 02/03/2025 | RHC | D |
| **Matrix Spike (B250369-MS1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | 101 | 84-115 | | | 02/03/2025 | RHC | D |
| **Matrix Spike Dup (B250369-MSD1)** Source ID: LS02247-02 | | | | | | | | | |
| Ammonia, as N | | | 95.5 | 84-115 | 4.28 | 20 | 02/03/2025 | RHC | D |
| **Batch: B250387** | | | | | | | | | |
| **Blank (B250387-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/04/2025 | JAL | U |
| **Blank (B250387-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/04/2025 | JAL | U |
| **LCS (B250387-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.6 | 90-110 | | | 02/04/2025 | JAL | |
| **LCS (B250387-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 99.6 | 90-110 | | | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.159 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 1.34 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.158 | 10 | 02/04/2025 | JAL | |
| **Duplicate (B250387-DUP4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 2.49 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.1 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.9 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike (B250387-MS4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.7 | 90-110 | | | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.9 | 90-110 | 0.699 | 10 | 02/04/2025 | JAL | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 02/24/2025 11:22

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250387 (Continued)** | | | | | | | | | |
| **Matrix Spike Dup (B250387-MSD2)** Source ID: BB04482-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.1 | 90-110 | 0.148 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD3)** Source ID: BB04484-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.2 | 90-110 | 0.538 | 10 | 02/04/2025 | JAL | |
| **Matrix Spike Dup (B250387-MSD4)** Source ID: LS02235-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.5 | 90-110 | 0.134 | 10 | 02/04/2025 | JAL | |
| **Batch: B250396** | | | | | | | | | |
| **Blank (B250396-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 02/08/2025 | RKG | U |
| **LCS (B250396-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 91.7 | 90-110 | | | 02/08/2025 | RKG | |
| **Duplicate (B250396-DUP1)** Source ID: WB03605-06 | | | | | | | | | |
| Total Dissolved Solids | | | | | 0.596 | 10 | 02/07/2025 | RKG | |
| **Batch: B250406** | | | | | | | | | |
| **Blank (B250406-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 02/06/2025 | RKG | U |
| **Blank (B250406-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 02/06/2025 | RKG | U |
| **LCS (B250406-BS1)** | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 02/06/2025 | RKG | |
| **LCS (B250406-BS2)** | | | | | | | | | |
| TKN | | | 101 | 80-120 | | | 02/06/2025 | RKG | |
| **Duplicate (B250406-DUP1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | | | 0.264 | 20 | 02/06/2025 | RKG | D |
| **Duplicate (B250406-DUP2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | | | 0.654 | 20 | 02/06/2025 | RKG | D |
| **Duplicate (B250406-DUP3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | | | 0.355 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | 102 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike (B250406-MS3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | 97.9 | 80-120 | | | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD1)** Source ID: BB04433-01 | | | | | | | | | |
| TKN | | | 105 | 80-120 | 1.14 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD2)** Source ID: BB04469-02 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.412 | 20 | 02/06/2025 | RKG | D |
| **Matrix Spike Dup (B250406-MSD3)** Source ID: WB03581-05 | | | | | | | | | |
| TKN | | | 108 | 80-120 | 3.38 | 20 | 02/06/2025 | RKG | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250467** | | | | | | | | | |
| **Blank (B250467-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 02/12/2025 | RHC | U |
| **LCS (B250467-BS1)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 02/12/2025 | RHC | |
| **Duplicate (B250467-DUP1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | | | 0.148 | 10 | 02/13/2025 | RHC | D |
| **Duplicate (B250467-DUP2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | | | 0.176 | 10 | 02/13/2025 | RHC | D |
| **Matrix Spike (B250467-MS1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | 97.7 | 90-110 | | | 02/13/2025 | RHC | D |
| **Matrix Spike (B250467-MS2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | 97.6 | 90-110 | | | 02/13/2025 | RHC | D |
| **Matrix Spike Dup (B250467-MSD1)** Source ID: WB03605-06 | | | | | | | | | |
| Chloride | | | 97.6 | 90-110 | 0.0393 | 10 | 02/13/2025 | RHC | D |
| **Matrix Spike Dup (B250467-MSD2)** Source ID: LS02250-02 | | | | | | | | | |
| Chloride | | | 97.0 | 90-110 | 0.261 | 10 | 02/13/2025 | RHC | D |
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B250363** | | | | | | | | | |
| **Blank (B250363-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 02/02/2025 | BAK | U |
| **LCS (B250363-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 95.4 | 90-110 | | | 02/02/2025 | BAK | |
| **Duplicate (B250363-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.119 | 10 | 02/02/2025 | BAK | |
| **Matrix Spike (B250363-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | 98.4 | 90-110 | | | 02/02/2025 | BAK | |
| **Matrix Spike Dup (B250363-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 1.03 | 10 | 02/02/2025 | BAK | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B250335** | | | | | | | | | |
| **Blank (B250335-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 02/10/2025 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 02/10/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 02/10/2025 | SMC | U |
| **LCS (B250335-BS1)** | | | | | | | | | |
| Calcium | | | 100 | 85-115 | | | 02/10/2025 | SMC | |
| Magnesium | | | 101 | 85-115 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 102 | 85-115 | | | 02/10/2025 | SMC | |
| **Duplicate (B250335-DUP1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | | | 1.09 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | | | 0.404 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | | | 1.39 | 20 | 02/10/2025 | SMC | |
| **Duplicate (B250335-DUP2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | | | 0.482 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | | | 0.318 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | | | 3.41 | 20 | 02/10/2025 | SMC | |
| **Matrix Spike (B250335-MS1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | | | 02/10/2025 | SMC | |
| Magnesium | | | 99.9 | 70-130 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 101 | 70-130 | | | 02/10/2025 | SMC | |
| **Matrix Spike (B250335-MS2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 02/10/2025 | SMC | |
| Magnesium | | | 99.4 | 70-130 | | | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | | | 02/10/2025 | SMC | |
| **Matrix Spike Dup (B250335-MSD1)** Source ID: AC00389-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | 0.231 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.603 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | 1.78 | 20 | 02/10/2025 | SMC | |
| **Matrix Spike Dup (B250335-MSD2)** Source ID: ES00370-06 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | 0.228 | 20 | 02/10/2025 | SMC | |
| Magnesium | | | 99.4 | 70-130 | 0.0390 | 20 | 02/10/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | 0.374 | 20 | 02/10/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B250465** | | | | | | | | | |
| **Blank (B250465-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 02/11/2025 | SAS | U |
| **LCS (B250465-BS1)** | | | | | | | | | |
| Mercury | | | 105 | 85-115 | | | 02/11/2025 | SAS | |
| **Duplicate (B250465-DUP1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 02/11/2025 | SAS | U |
| **Duplicate (B250465-DUP2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 02/11/2025 | SAS | U |
| **Matrix Spike (B250465-MS1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | 102 | 70-130 | | | 02/11/2025 | SAS | |
| **Matrix Spike (B250465-MS2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | 99.6 | 70-130 | | | 02/11/2025 | SAS | |
| **Matrix Spike Dup (B250465-MSD1)** Source ID: EP00426-02 | | | | | | | | | |
| Mercury | | | 105 | 70-130 | 2.90 | 20 | 02/11/2025 | SAS | |
| **Matrix Spike Dup (B250465-MSD2)** Source ID: AC00391-01 | | | | | | | | | |
| Mercury | | | 102 | 70-130 | 2.83 | 20 | 02/11/2025 | SAS | |
| **Batch: B250508** | | | | | | | | | |
| **Blank (B250508-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 02/17/2025 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 02/17/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 02/17/2025 | DMW | U |
| **LCS (B250508-BS1)** | | | | | | | | | |
| Arsenic | | | 103 | 85-115 | | | 02/17/2025 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 02/17/2025 | DMW | |
| Lead | | | 106 | 85-115 | | | 02/17/2025 | DMW | |
| **Duplicate (B250508-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | | | 0.676 | 20 | 02/17/2025 | DMW | |
| Cadmium | | | | | 5.69 | 20 | 02/17/2025 | DMW | |
| Lead | | | | | 2.44 | 20 | 02/17/2025 | DMW | |
| **Matrix Spike (B250508-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | 103 | 70-130 | | | 02/17/2025 | DMW | |
| Cadmium | | | 105 | 70-130 | | | 02/17/2025 | DMW | |
| Lead | | | 106 | 70-130 | | | 02/17/2025 | DMW | |
| **Matrix Spike Dup (B250508-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Arsenic | | | 102 | 70-130 | 0.698 | 20 | 02/17/2025 | DMW | |
| Cadmium | | | 105 | 70-130 | 0.433 | 20 | 02/17/2025 | DMW | |
| Lead | | | 105 | 70-130 | 0.541 | 20 | 02/17/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Report Date: 02/24/2025 11:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B250403** | | | | | | | | | |
| **Blank (B250403-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 02/15/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 02/15/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 02/15/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 02/15/2025 | DMW | U |
| **LCS (B250403-BS1)** | | | | | | | | | |
| Cadmium | | | 103 | 85-115 | | | 02/15/2025 | DMW | |
| Copper | | | 101 | 85-115 | | | 02/15/2025 | DMW | |
| Lead | | | 103 | 85-115 | | | 02/15/2025 | DMW | |
| Zinc | | | 99.1 | 85-115 | | | 02/15/2025 | DMW | |
| **Duplicate (B250403-DUP1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 02/15/2025 | DMW | |
| Copper | | | | | 1.68 | 10 | 02/15/2025 | DMW | |
| Lead | | | | | 0.859 | 10 | 02/15/2025 | DMW | |
| Zinc | | | | | 0.383 | 10 | 02/15/2025 | DMW | |
| **Matrix Spike (B250403-MS1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | 102 | 70-130 | | | 02/15/2025 | DMW | |
| Copper | | | 101 | 70-130 | | | 02/15/2025 | DMW | |
| Lead | | | 103 | 70-130 | | | 02/15/2025 | DMW | |
| Zinc | | | 98.3 | 70-130 | | | 02/15/2025 | DMW | |
| **Matrix Spike Dup (B250403-MSD1)** Source ID: AC00389-01 | | | | | | | | | |
| Cadmium | | | 101 | 70-130 | 0.741 | 10 | 02/15/2025 | DMW | |
| Copper | | | 99.7 | 70-130 | 1.18 | 10 | 02/15/2025 | DMW | |
| Lead | | | 100 | 70-130 | 2.90 | 10 | 02/15/2025 | DMW | |
| Zinc | | | 98.8 | 70-130 | 0.233 | 10 | 02/15/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| | Data reported from a dilution |
| | Analyte included in the analysis, but not detected |
| R | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.
No duplication of this report is allowed, except in its entirety*

## Ada County Highway District

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586
**Project:** Stormwater PI
Sampler(s): Steven Turner
Kristen Jolliffe

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC003590-01 | 1/31/25 | 1/31/25 | 1932 | 2045 | 250131-206-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 3/11/25 1135 | 3/11-25 1130 | |

# Technical Memorandum

1290 W. Myrtle St. Suite 340
Boise, ID 83702

Phone: 801.316.9859

Prepared for: Ada County Highway District

Project Title: NPDES Phase I Stormwater Support WY 2025

Project No.: 196784

**Technical Memorandum**

Subject: ACHD Phase I Storm Event Report for February 23, 2025

Date: May 5, 2025

To: Monica Lowe

Cc: Steven Turner
Kristen Jolliffe

From: Zuly Lapa, Project Engineer

Prepared by: Reghan Hodges, Project Engineer

Reviewed by: Zuly Lapa, EIT, Project Engineer
Nikki McDonald, PE, Project Manager

*Limitations:*

*This document was prepared solely for ACHD in accordance with professional standards at the time the services were performed and in accordance with the contract between ACHD and Brown and Caldwell dated September 14, 2024. This document is governed by the specific scope of work authorized by ACHD; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by ACHD and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the February 23, 2025, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

**Table 2-1. WY 2025 Samples Collected**

| Date | Lucky | Whitewater | Main | Americana | AS_6 |
|---|---|---|---|---|---|
| December 14, 2024 | G, C[1] | G, C | G, C | G, C | G, C |
| January 31, 2025 | --, C | --, C[2] | --. C | --, C[2] | --, C[3] |
| February 23, 2025 | G, C[4] | G, -- | G, C | G, C[2] | G, C |
| Unqualified Samples: | 2G, 1C | 2G, 1C | 2G, 3C | 2G, 1C | 2G, 2C |
| Samples Remaining: | 1G, 2C | 1G, 2C | 1G, 0C | 1G, 2C | 1G, 1C |

*Notes:*

*– = no samples taken.*

*C = composite sample.*

*G = grab sample.*

[1] *Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

[2] *Composite sample qualified due to lack of representativeness (50%–75%).*

[3] *Sample rejected due to lack of representativeness (<50%).*

[4] *Composite sample qualified due to exceedance of 6.0 °C.*

# Section 3: Storm Event Summary

The February 23, 2025, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from February 23, 2025, is included in Attachment A for reference.

**Friday, February 21, 2025 (Sampling Event Communication)**

- On the afternoon of February 21, the National Weather Service issued a forecast for a stratiform (consistent) system starting February 23 at 0500 until 1700. The chance of precipitation was 90%, with a 70%-80% probability of rain amounts to be greater than 0.1 inches over a 12-hour period. The forecasted precipitation for this event was 0.3 inches.

**Saturday, February 22, 2025 (Set up)**

- Setup was accomplished on the morning of February 22. An expected precipitation depth of 0.15 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

**Sunday, February 23, 2025 (Storm Event)**

- The runoff started on February 23 at approximately 0516 and ended at 2359.
- Precipitation totals ranged between 0.27 and 0.38 inches at local rain gauges.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Lucky, Whitewater, Main, Americana and AS_6 sites showing flow, rain, and sample collection data are included in Attachment B. The Americana hydrograph depicts subsamples collected after the first composite sample was discarded, described below in Section 5.

## 3.2 Sampling Summary

Lucky, Whitewater, Main, Americana and AS_6 monitoring stations were set up on February 22, 2025, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Lucky, Whitewater, Main, Americana and AS_6 flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Grab Samples

Two, two-member teams mobilized to collect stormwater runoff grab samples and verify operation of the automatic sampling equipment on February 23 around 0545. Grab samples for Lucky, Whitewater, Main, Americana, and AS_6 were submitted to the Boise City Public Works Water Quality Laboratory (WQL) at 0856 on February 23. Results for grab samples, including field parameter and analytical data, are included in Table 2. Laboratory analytical reports are included in Attachment D.

### Composite Samples

Composite samples were collected at the Lucky, Main, Americana and AS_6 monitoring stations and submitted to the WQL at 2044 on February 23. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

A summary of quality control samples collected during the February 23, 2025, storm event is presented below in Table 4-1. A field blank and a field duplicate were collected from the Whitewater monitoring station and a lab duplicate/composite split was collected from the AS_6 monitoring station. The analytical results for these samples are included in Table 4-1.

| Table 4-1. Quality Control Samples | | | |
|---|---|---|---|
| Sample ID | Sample Type | Parent Sample | Conclusions |
| 250223-11-001 | Field blank | Whitewater grab | No *E. coli* detected in the field blank. |
| 250223-11-101 | Field duplicate | Whitewater grab | Relative percent difference was within the acceptable range. |
| 250223-206-103 | Lab duplicate/composite split | AS_6 composite | Relative percent difference was not within the acceptable range for dissolved lead and dissolved copper. Analytical values for dissolved lead and dissolved copper are considered estimates. |

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A.

An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. The composite sample collected at Americana was qualified due to lack of representativeness (50 – 75 percent). See Section 5 for more information.

The AS_6 lab duplicate/composite split sample resulted in relative percent differences within the acceptable range for all results, with the exception of dissolved lead and dissolved copper. The dissolved lead and dissolved copper results are therefore considered estimates. Additionally, the composite sample collected at Lucky exceeded the preservation temperature maximum. Therefore, all constituents analyzed are considered estimates with the exception of total metals, hardness, and chloride, in accordance with 40CFR136. Acceptance and performance criteria for analytical and non-analytical data were met for the Main composite sample.

All grab samples collected met acceptance criteria.

# Section 5: Notes and Recommendations

### Whitewater

Composite sample bottles for Whitewater were not submitted to the WQL due to lack of sample representativeness. The duration of various sampler messages (those include “Power Failed”, “Sample Skipped”, “No More Liquid”, and “No Liquid Detected”) accounted for more than 50 percent of the total composite duration time. The sampling team replaced the battery on February 23, 2025, at 0925 and then later purged the line in attempt to clear the strainer. After further investigation, ACHD determined that the sampler tubing came loose from its mounting points in the pipe, which also caused the strainer to be disconnected from the tubing. The connections between the sampling tubing, strainer, and mounting points in the pipe were reinforced during spring maintenance. Longer amp hour batteries will be used at this monitoring station in the future.

### Americana

The sampling team discovered the first composite sample bottle was primarily pre-storm dry weather samples. The sample bottle was discarded and not submitted to the WQL. Sampling of pre-storm flows likely resulted from modifying setup protocols due to recent rainfall.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main | Americana | AS_6 |
| Grab samples collected and submitted? | YES | YES | YES | YES | YES |
| Composite samples collected and submitted? | YES | NO | YES | YES | YES |
| Trigger volume ($ft^3$) | 3,950 gal | 1,093 cf | 622 cf | 4,036 cf | 2,252 gal |
| Sampler enable condition (in) or Velocity cutoff (fps) | Level > 2.69 | Level > 2.57 | Level > 2.2 | Level > 6.0 | Level > 1.05 |
| Deadband/ Hysteresis (in) | 1.0" | 1.0" | 1.0" | 1.0" | 1.0" |
| Runoff start time | 0540 | 0632 | 0516 | 0516 | 0600 |
| Grab sample collection time | 0714 | 0800 | 0814 | 0553 | 0744 |
| Composite sample stop time | 1849 | -- | 1728 | 1927 | 1852 |
| Runoff stop time | 2031 | 2359 | 2025 | 2359 | 2049 |
| Volume of discharge sampled ($ft^3$) | 19,541 | -- | 9,968 | 218,869 | 20,092 |
| Total runoff volume ($ft^3$) | 21,139 | 72,014 | 11,116 | 309,927 | 22,442 |
| Percent of storm flow sampled (%) | 92% | -- | 90% | 71% | 90% |
| Composite sample duration (hrs) | 11.5 | -- | 10 | 11.5 | 11 |
| Storm Precipitation (in) | 0.37 | 0.31 | 0.27 | 0.27/0.38 | 0.27/0.38 |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | 38 | -- | 17 | 57 | 66 |
| Number of composite bottles filled | 2 | -- | 1 | 3 | 3 |
| Composite sample volume (Approx.; ml) | 21,250 mL | -- | 9,500 mL | 33,750 mL | 40,500 mL |

Notes:

-- = No data

**Table 2. Field and Analytical Data Summary**

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | mpn/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Lucky | 2/23/2025 | 250223-03-WG | 10.03 | 7.99 | 114.81 | 8.01 | 35.0 | 250223-03-WC | 2.77[2J] | 22.0[2J] | 3.93 | 16.2 | 25.8[2J] | 12.6[2J] | 39.0[2J] | 0.103[2J] | 0.0512[2J] | 0.127[2J] | 0.193[2J] | 0.546[2J] | 0.89 | <0.0100[2J] | <0.0200 | 1.9[2J] | 0.026[2J] | 0.61 | <0.0100 | 10.2[2J] |
| Whitewater | 2/23/2025 | 250223-11-WG | 10.22 | 7.64 | 180.45 | 6.34 | 127.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Main | 2/23/2025 | 250223-12-WG | 10.87 | 7.98 | 203.06 | 7.74 | 18.9 | 250223-12-WC | 4.66 | 51.0 | 28.0 | 20.8 | 32.9 | 29.1 | 75.3 | 0.100 | 0.0395 | 0.302 | 0.133 | 0.783 | 0.90 | 0.016 | 0.047 | 2.9 | 0.044 | 2.3 | <0.0100 | 24.0 |
| Americana | 2/23/2025 | 250223-14-WG | 5.59 | 8.04 | 714.07 | 12.19 | 17.3 | 250223-14-WC | 3.56[1J] | 31[1J] | 72.4[1J] | 87.8[1J] | 13.9[1J] | 21.3[1J] | 214[1J] | 0.123[1J] | 0.0604[1J] | 0.0779[1J] | 0.687[1J] | 0.583[1J] | 3.4[1J] | 0.012[1J] | 0.032[1J] | 2.0[1J] | 0.036[1J] | 1.9[1J] | <0.0100[1J] | 15.4[1J] |
| AS_6 | 2/23/2025 | 250223-206-WG | 10.85 | 8.23 | 320.50 | 6.25 | 161.6 | 250223-206-WC | 6.17 | 56.0 | 17.8 | 14.4 | 45.2 | 37.6 | 76.5 | 0.224 | 0.104 | 0.0719 | 0.0847 | 0.905 | 2.1 | <0.0100 | 0.044 | 3.7[1] | 0.21[1] | 4.2 | <0.0100 | 10.1 |

Notes:

-- = No data.

[1] Relative percent difference was greater than 20% and both parent and QC sample were greater than five times the method detection limit. Values are considered estimates.

[1J] Composite sample qualified due to lack of representativeness (50% - 75%).

[2J] Composite sample qualified due to exceedance of 6.0° C.

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Lucky | 2/23/2025 | 16.6[2J] | 0.136[2J] | 0.168[2J] | 0.255[2J] | 0.720[2J] |
| Whitewater | 2/23/2025 | -- | -- | -- | -- | -- |
| Main | 2/23/2025 | 20.2 | 0.0694 | 0.210 | 0.0923 | 0.543 |
| Americana | 2/23/2025 | 412[1J] | 2.38[1J] | 1.51[1J] | 13.3[1J] | 11.3[1J] |
| AS_6 | 2/23/2025 | 52.7 | 0.314 | 0.101 | 0.119 | 1.27 |

Notes:

-- = No data

[1J] Composite sample qualified due to lack of representativeness (50% - 75%).

[2J] Composite sample qualified due to exceedance of 6.0° C.

**Table 4. QC Sample Summary**

| Date | Parent Sample | Sample ID | Type | E. coli | $BOD_5$ | COD | Chloride | Hardness as CaCO3 | Turbidity | TSS | TDS | Total Phosphorus | Dissolved Orthophosphate | Ammonia | Nitrate + Nitrite (N) | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mpn/100 mL | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| 2/23/2025 | 250223-11-WG | 250223-11-001 | Field Blank | <1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2/23/2025 | 250223-11-WG | 250223-11-101 | Field Duplicate | 98.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Calculated parent/duplicate RPD | | | | 5% | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Allowable RPD | | | | 40% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |
| 2/23/2025 | 250223-206-WC | 250223-206-103 | Lab Duplicate/Composite Split | -- | 6.18 | 61.0 | 18.3 | 14.4 | 46.3 | 36.8 | 75.0 | 0.222 | 0.103 | 0.0784 | 0.0970 | 0.941 | 2.0 | <0.0100 | 0.038 | 4.9[1] | 0.16[1] | 4.0 | <0.0100 | 9.6 |
| Calculated parent/duplicate RPD | | | | -- | 0% | 9% | 3% | 0% | 2% | 2% | 2% | 1% | 1% | 9% | 14% | 4% | 5% | 0% | 15% | 28% | 27% | 5% | 0% | 5% |
| Allowable RPD | | | | 40% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |

Notes:

-- = No data

[1]Relative percent difference was greater than 20% and both parent and QC sample were greater than five times the method detection limit. Values are considered estimates.

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 2/21/2025 | Time: 3:58 PM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | Yes |

| | |
|---|---|
| Past 72 hr Precip | 0.30" at Airport |
| Date and time of expected event | 2/23/25 5:00 am – 8:00 pm |
| Expected amount of precipitation | 0.30" |
| Percent chance of precipitation | 90% |
| Percent chance of >0.10" over 12 hours | 70-80% |

NWS Update

Spoke with Steven from NWS. This will be a stratiform (consistent) system starting early on Sunday morning around 5:00 am with a chance of light rain before. We will see consistent precip until 5:00 pm on Sunday. From 5:00 pm – 8:00 pm the system will turn showery and from 8:00 – 11:00 pm it will be sprinkles. There is still some uncertainty about the overall timing of this storm because of how far out we are.

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab |
| ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☐ Light Rain | ☒ Rain | ☐ Rain on Snow |
| ☐ Scattered Showers | ☐ Thunder Showers | ☐ Snowmelt |
| ☐ Other: Snow | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☒ Waiting on Antecedent Dry Period – Expires: 2/22/2025 9:53 PM
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: Boise ID
Issued by: National Weather Service Boise, ID
Last Update: 10:22 am MST Feb 21, 2025

Tonight: Increasing clouds, with a low around 28. Calm wind.
Saturday: Cloudy, then gradually becoming mostly sunny, with a high near 48. Light south southeast wind.
Saturday Night: Rain likely after 11pm. Mostly cloudy, with a low around 36. East southeast wind around 6 mph. Chance of precipitation is 60%.
**Sunday: Rain.** High near 53. Southeast wind around 7 mph. **Chance of precipitation is 90%. New precipitation amounts between a quarter and half of an inch possible.**
**Sunday Night: Rain likely, mainly before 11pm.** Cloudy, with a low around 42. East southeast wind 5 to 7 mph. **Chance of precipitation is 70%. New precipitation amounts between a tenth and quarter of an inch possible.**
Monday: A 30 percent chance of rain before 11am. Mostly cloudy, with a high near 58.
Monday Night: A 40 percent chance of rain. Mostly cloudy, with a low around 39.
Tuesday: A 20 percent chance of rain before 11am. Mostly sunny, with a high near 54.

Tuesday Night: Mostly clear, with a low around 31.
Wednesday: Sunny, with a high near 55.
Wednesday Night: Mostly clear, with a low around 33.
Thursday: Mostly sunny, with a high near 58.
Thursday Night: Partly cloudy, with a low around 33.
Friday: Mostly sunny, with a high near 56.

Forecast Discussion

Area Forecast Discussion
National Weather Service Boise ID
253 PM MST Fri Feb 21 2025

.SHORT TERM...Tonight through Sunday night...A weak upper wave will track across the region late tonight and Saturday. Outside of a low chance of showers across e-central Oregon and w-central Idaho, it most areas remain dry through the day. Any areas that pick up light snow will see less than a 1/2 inch through midday Saturday.

**A much wetter pattern will unfold late Saturday night into Sunday as an atmospheric river pushes into the Pac NW.** Modeled precipitable water data show this plume (1-1.5" values) to have a sub-tropical connection west of the Date Line. While the core of strongest winds aloft are forecast to remain just north and west of the region, there will be plenty of moisture transport in from the coast to generate rain and high elevation snow. Precipitable water values reach the 98%+ with W-SW winds at ~10kft MSL reaching 30-50 mph. **This will favor a period of continuous moderate to locally heavy precipitation on Sunday, especially across e-central Oregon, and the w-central ID and Boise mtns.** In these areas snow levels will start between 3500-4500 feet MSL Saturday night, allowing for minor accumulation of wet snow. The incoming Pacific air mass will quickly raise snow levels to between 6-8kft across the region on Sunday, bringing a rain/snow mix or changeover to rain except across the highest elevations. Total liquid amounts will reach 0.75-1.25" across the mountains with locally higher amounts of 1.5-1.75" translating to a wet 6-12" of snow above 7kft MSL through Sunday night. **At lower elevations, rain totals of 0.1-0.3" are forecast through Sunday night.** Valleys and mtn valleys will see breezy winds while higher mountains, tapping into the flow aloft, realize the strongest winds with gusts of 30-40 mph. Temperatures will be near normal Saturday and Sunday.

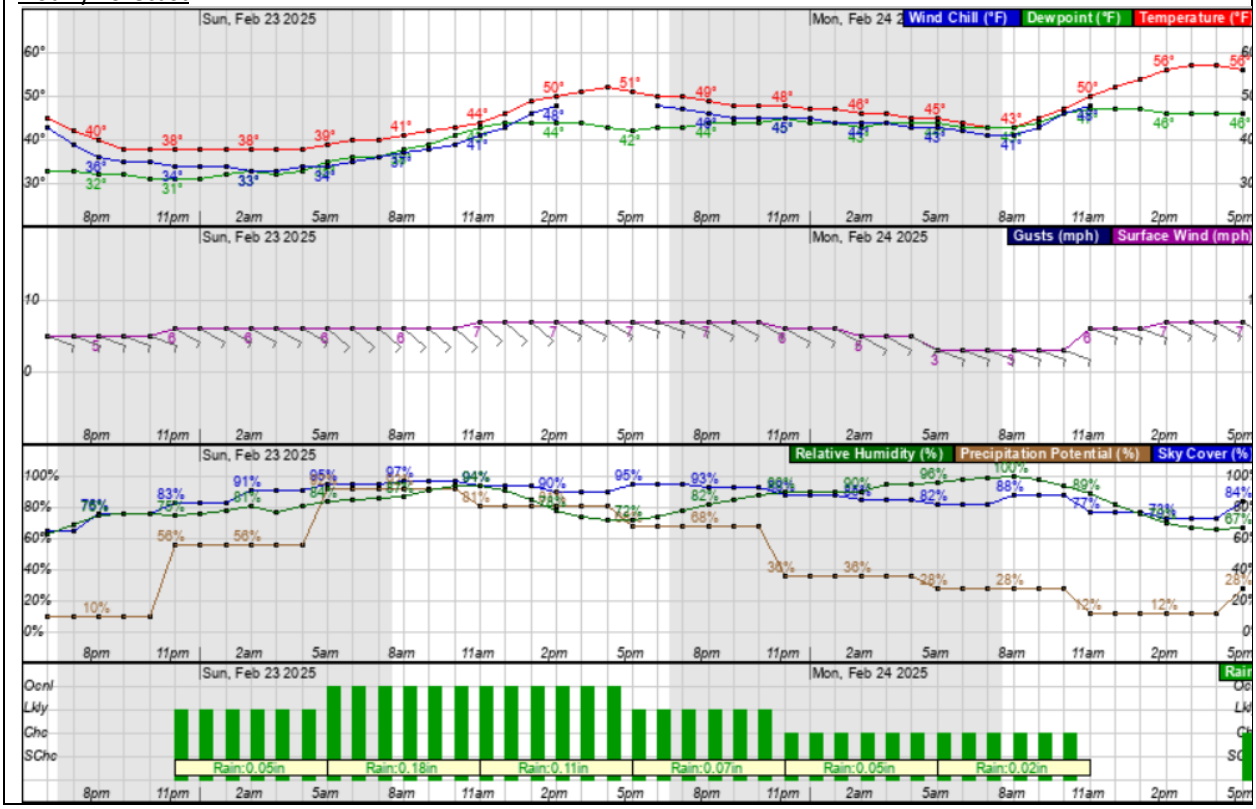
At this point we expect much of the mtn snowpack to be able to absorb the rain with minimal snowmelt. Some runoff is expected and with frozen ground this could lead to water ponding in low lying areas where drainage is limited. There is of some question on how the lower elevation snowpack will respond but we do expect rain/melt/higher elevation runoff to impact river flow. While all rivers are showing forecast rises, the Weiser, Malheur, Payette and Donner und Blitzen are a few that we`re keeping an eye on as hydrologic forecasts show a more notable response in these rivers by Monday. Otherwise expect to see smaller streams running near bankfull early next week.

.LONG TERM...Monday through Friday...The atmospheric river will

weaken on Monday, as zonal upper level low begins to strengthen over the region. Snow and rain showers will continue over the mountains through Tuesday, with snow levels rising to around 6500-7500 feet by Monday afternoon. Monday will be the warmest day of the long term period, with lower elevation highs in the upper 50s to low 60s (Boise has a 20% chance of exceeding 60F!), and mountain daytime highs in the mid 30s to mid 40s. Large precipitation totals from the Sunday-Monday atmospheric river event will occur, with valleys seeing anywhere from 0.25-0.50 inches of rain and mountains 1.00- 1.25 inches of rain for the 48 hour totals. Snow amounts above 6500- 7500 feet will be low, with most populated locations/roadways seeing anywhere from 1-3 inches, with high summits seeing up to 12-16 inches.

A weak low will skirt to north of us on Tuesday, dropping temperatures by 3-6 degrees and decreasing snow levels to 4500-5500 feet. Lingering snow showers will persist in the West Central Mountains on Tuesday, but a deep upper level ridge of high pressure will begin to build across the Western US by late Tuesday. This will keep our temperatures above normal with dry conditions through Friday. Excellent model agreement remains through the long term period in the evolution of the ridge, so forecast confidence in dry and warm conditions is high.

Hourly Forecast



# Storm Event QA/QC Checklist – Phase I

| STORM DATE: 02/23/2025 | | | | |
|---|---|---|---|---|
| **A. Event and Data Completeness** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | Lucky Comp received at 6.6° C |
| 5. Inconsistencies/clarifications discussed with sampling team member | | | X | |
| 6. All analytical reports from lab received | X | | | |
| **B. Validation and Verification Methods** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | X | | | |
| 5. Data quality objective achieved | X | | | |

| C. Specific Storm and Sample QA/QC Criteria | Lucky | Whitewater | Main | Americana | AS_6 | Program Criteria | Met | Qualify | Reject |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | 0.00" | 0.02" | 0.00" | 0.00" | 0.00" | < 0.11" in 72 hrs | X | | |
| 2. Precipitation (inches) | 0.37" | 0.31" | 0.27 | 0.27"/ 0.38" | 0.27"/ 0.38" | > 0.10" | X | | |
| 3. Sampled amount (% of total run-off) | 92% | - | 90% | 71% | 90% | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | X | | |
| 4. Composite sample duration (hours) | 11.5 | - | 10 | 11.5 | 11 | | | | |
| 4. Ecoli sample holding time (hours) | 3.5 | 2.5 | 2.5 | 5 | 3 | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | X | | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | 14 | - | 14 | 12.5 | 14.5 | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

Whitewater – Composite not submitted to the WQ Lab due to lack of representativeness. It was later found that the sampler tubing had come loose from its mounting points in the pipe halfway through the storm.
Americana – Composite sample qualified due to lack of representativeness (50 – 75%).

**Reviewed by:** Glenn Timm **Date:** 4/29/25 **Approved by** Monica Love **Date** 4/29/25

Updated 220718 TL

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

| | |
|---|---|
| Expected Precipitation Depth = | 0.15 |
| Aliquots per Sample = | 17 |

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 8976.1 | **528** |
| Whitewater | 498 | 0.069 | 18574.5 | **1093** |
| Main | 79 | 0.246 | 10581.8 | **622** |
| Main Alt | 60 | 0.200 | 6534.0 | **384** |
| Americana | 875 | 0.144 | 68607.0 | **4036** |
| Americana Alt | 869 | 0.144 | 68136.6 | **4008** |
| AS_6 | 204 | 0.046 | 5109.6 | **301** |
| State | 34 | 0.127 | 2351.2 | **138** |

Notes:

Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

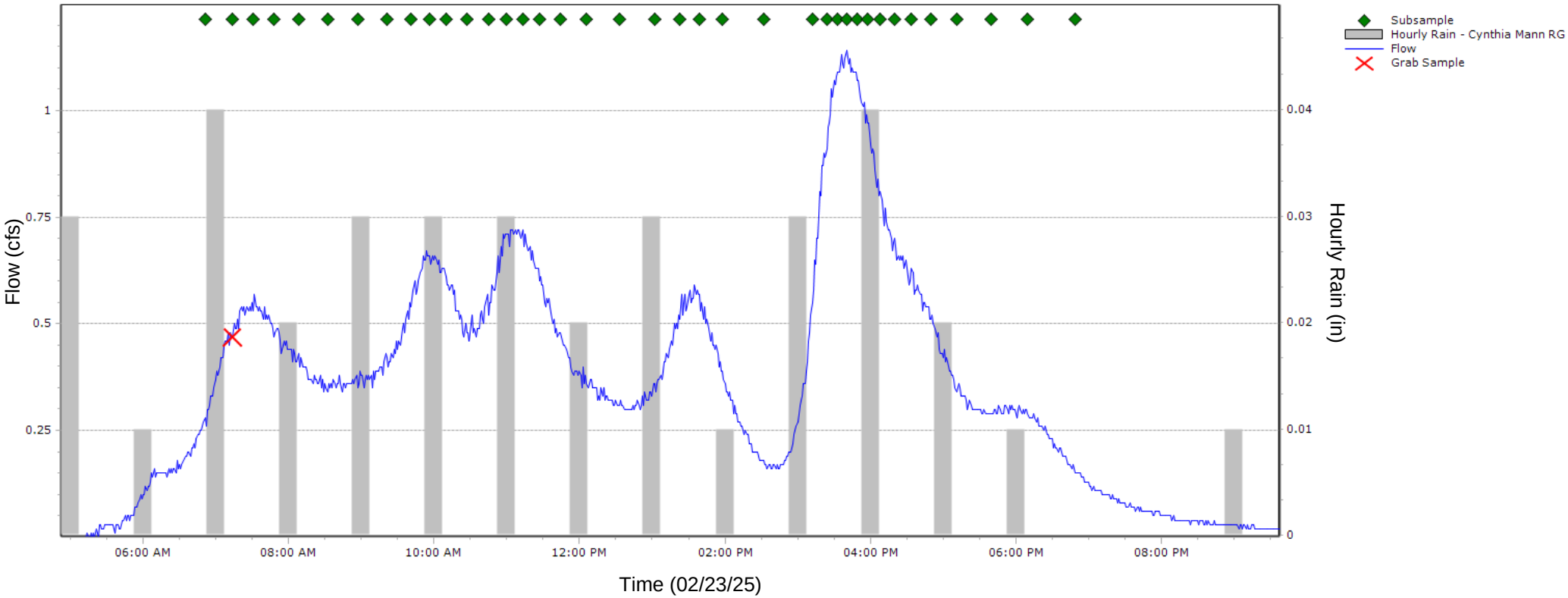
Where volume ($ft^3$) is the measured discharge, precip (ft) is the measured amount from local rain guage, and area ($ft^2$) is the watershed area.

Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

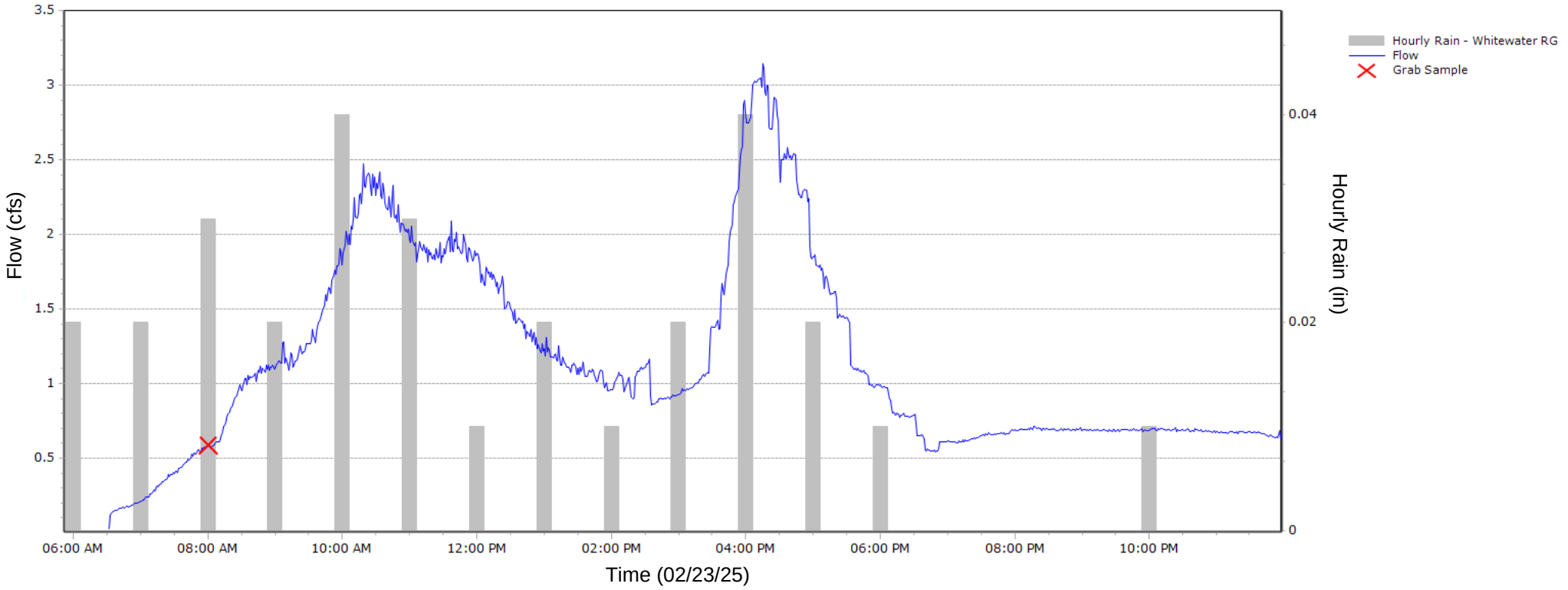
Updated 250213 KJ

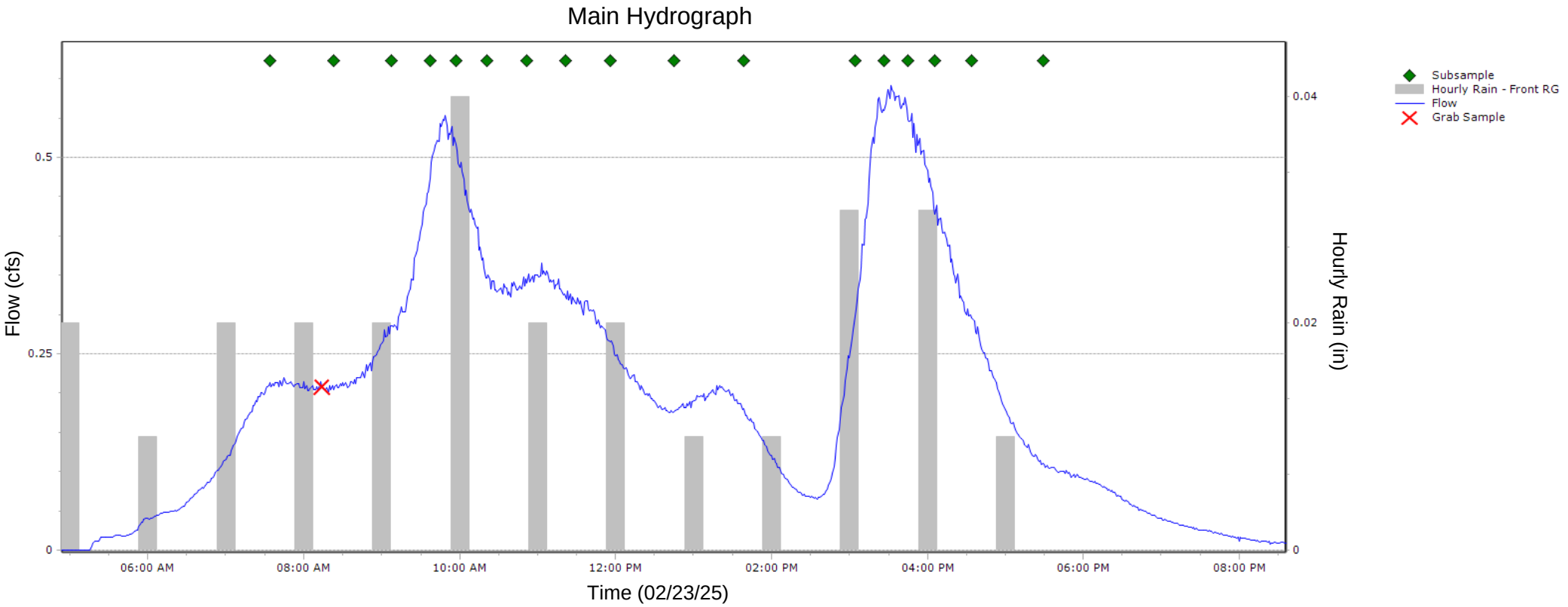
# Attachment B: Storm Event Hydrographs

# Lucky Hydrograph

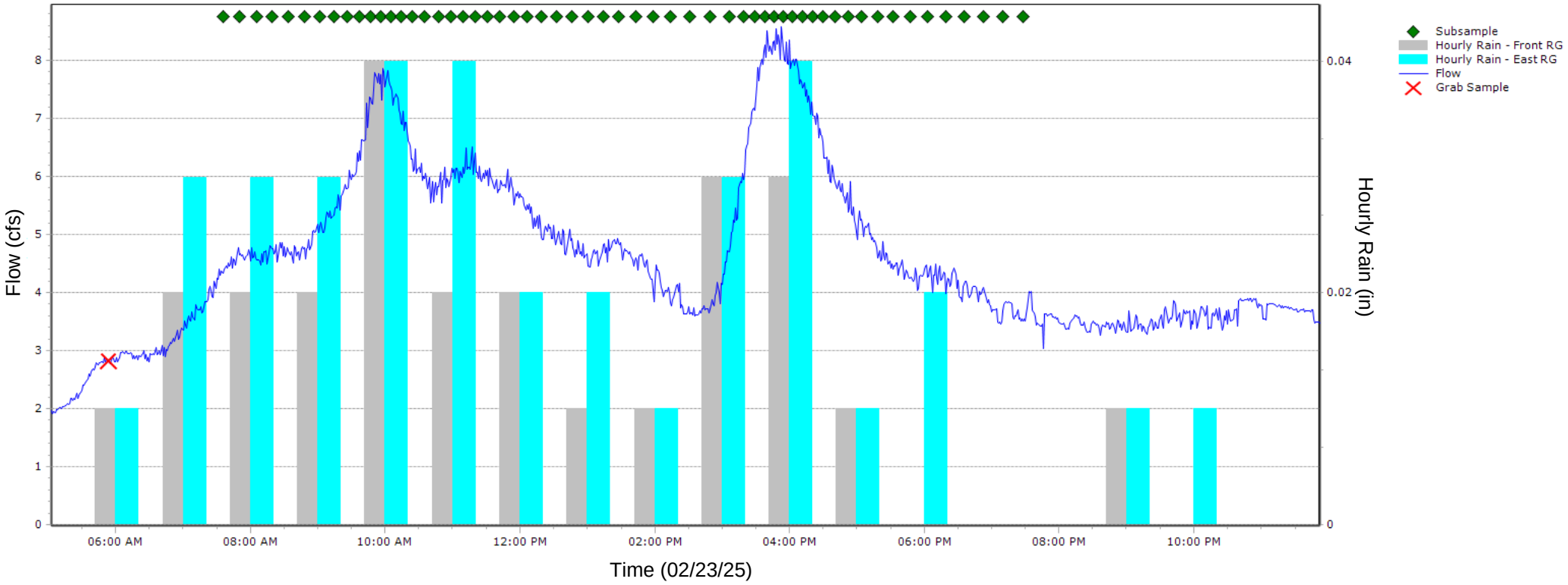


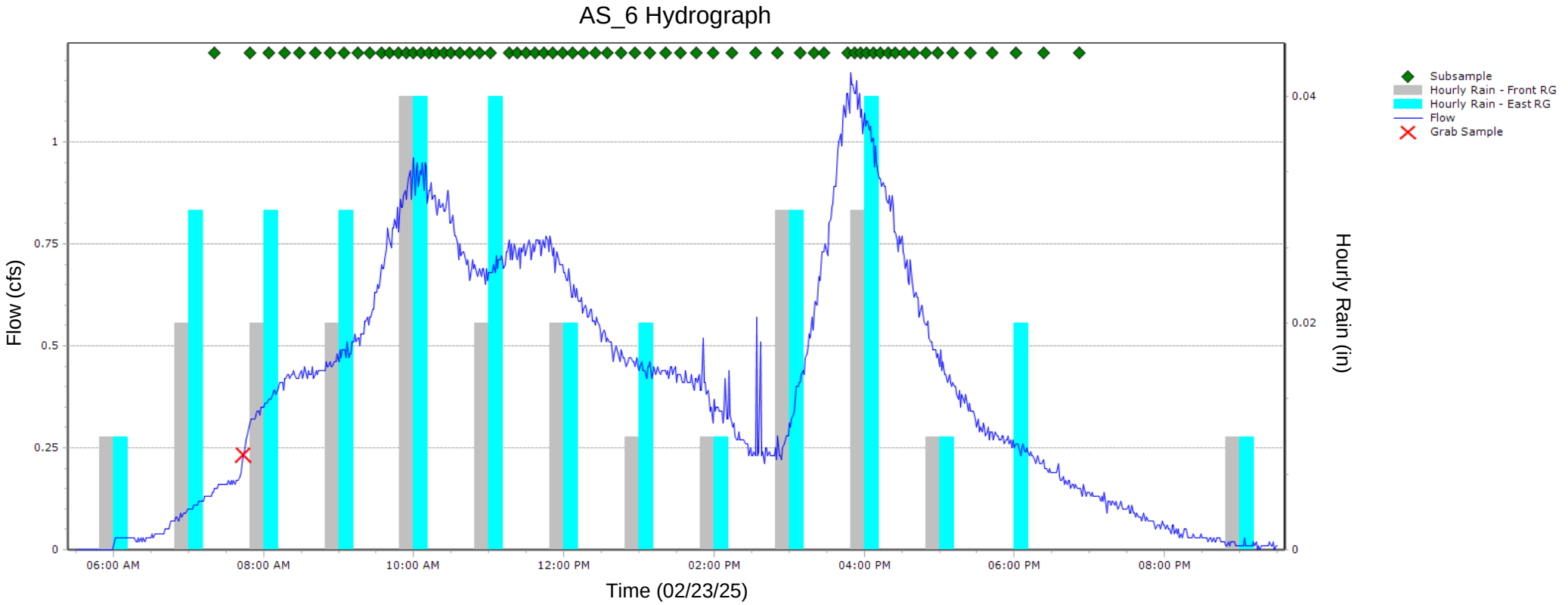
# Whitewater Hydrograph




Main Hydrograph
Flow (cfs)
0.5
0.25
0
06:00 AM
08:00 AM
10:00 AM
12:00 PM
02:00 PM
04:00 PM
06:00 PM
08:00 PM
Time (02/23/25)
0.04
0.02
0
Hourly Rain (in)
Subsample
Hourly Rain - Front RG
Flow
Grab Sample

# Americana Hydrograph




AS_6 Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (02/23/25)
0
0.25
0.5
0.75
1
0.02
0.04
06:00 AM
08:00 AM
10:00 AM
12:00 PM
02:00 PM
04:00 PM
06:00 PM
08:00 PM
Subsample
Hourly Rain - Front RG
Hourly Rain - East RG
Flow
Grab Sample

# Attachment C: Field Forms

# Grab Sample Data Form

**STATION:** LW CK

**Personnel:** ST, PB **Date/Time On-Site:** 2025/02/23 700 am

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 7:01 am | 4.62 | 215.58 9FM | 0.96 | 13 | — | — |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250223-03 -WG | 2/23/2025 | 7:14 | ☑ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP 12 | 7:14 am | ~~8.14~~ 8.01 PB | 10.03 | ~~7.98~~ 7.99 PB | 114.81 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

# Grab Sample Data Form

**STATION:** Whitewater

**Personnel:** ST, PB **Date/Time On-Site:** 2/23/25 7:36

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 7:44 | 3.26 | 0.50 | 0.98 | — | — |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250223-11 -WG | 2/23/25 | 8.00 | ☒ |
| Field Duplicate *E.Coli* | 250223-11 -101 | 2/23/25 | 8:07 | ☒ |
| Field Blank *E.Coli* | 250223-11 -001 | 2/23/25 | 8:04 | ☒ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MF12 | 7:51 am | 6.34 | 10.22 | 7.64 | 180.45 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 8:10

# Grab Sample Data Form

**STATION:** MAIN

**Personnel:** KJ + MV **Date/Time On-Site:** ~~2/23/25~~ 2/23/25 8:07 am

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 8:09 | 4.152 | 0.2 | 0.84 | 11.63 | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250223-12 -WG | 2/23/25 | 8:14 am | ☒ |
| Field Duplicate *E.Coli* | 250223-12 -101 | 2/23/25 | 8:15 am | ☒ |
| Field Blank *E.Coli* | 250223-12 -001 | 2/23/25 | 8:20 am | ☒ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP-13 | 8:21 | 7.74 | 10.87 | 7.98 | 203.06 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 2/23/25 7:32 am |
| Last Subsample Date/Time | 2/23/25 7:32 am |
| # of Subsamples taken | 1 |

**Comments:**

# Grab Sample Data Form

**STATION:** Americana

**Personnel:** KJ, MVL **Date/Time On-Site:** 2/23/25 0545

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 5:53 | 6.84 | 2.93 | 2.577 | 12.04 | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250223-14 -WG | 2/23/25 | 5:53 pm | ☒ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP-13 | 5:58 | 12.19 | 5.59 | 8.04 | 120130 |

714.07

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 2/22 @ 17:05 |
| Last Subsample Date/Time | 5:51 pm 2/23 |
| # of Subsamples taken | 20 |

**Comments:**

RECHECKED CONDUCTIVITY AFTER RECALIBRATION

**Date/Time Off-Site:** 06:00 am

# Grab Sample Data Form

**STATION:** AS-6

**Personnel:** KJ & MV **Date/Time On-Site:** 2/23/25 7:42

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 7:49 | 3.21 | 135.88 (gpm) | 1.09 | 12.6 | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250223-206 -WG | 2/23/25 | 7:44 am | ☒ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP-13 | 7:51 | 6.25 | 10.85 | 8.23 | 320.50 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 2/23/25 7:21 |
| Last Subsample Date/Time | 2/23/25 7:49 |
| # of Subsamples taken | 2 |

**Comments:**

**Date/Time Off-Site:** 2/23/25 7:50 am

Revised 240123 KC

# Set Up/ Shut Down Form – HACH (Lucky [redacted], AS_6)

**STATION:** Lucky

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 2/22/25 10:10

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 10:17 | 1.69 | 0.00 | 0.00 | 12.9 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 2.69" |
| **Deadband:** | 1 |
| **Trigger Volume:** | 3950 gal |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:**

offsite 10:34

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/24/25 1455

| Time | Level (in) | Flow ~~(cfs)~~ gpm | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 1458 | 1.95 | 8.14 | 0.13 | - | 12.4 |
| **Downloaded to:** | | Stevens USB | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| [x] Halt program on flowmeter | [x] Replace flowmeter battery |
| [x] Download flowmeter data | [x] Reset logging interval to 15 minutes |
| [x] Remove flowmeter battery | [x] Change velocity cutoff to 0.02 fps |
| | [x] Start program |
| | [x] Verify running |

**Comments:**

offsite: 1504

# Composite Sample Collection

**STATION:** Lucky **Bottle** 1 **of** 2

**Personnel:** ST, PB **Date/Time On-Site:** 2/23/25 8:54

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-03 | -WC |
| **Approx Sample Volume (mL):** | 13250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Gray | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 651 | Success | 13 | 2/23/25 1045 | Success |
| 2 | 714 | | 14 | 1100 | |
| 3 | 731 | | 15 | 1113 | |
| 4 | 748 | | 16 | 1127 | |
| 5 | 808 | | 17 | 1144 | |
| 6 | 832 | | 18 | 1206 | |
| 7 | 857 | | 19 | 1233 | |
| 8 | 921 | | 20 | 1302 | |
| 9 | 941 | | 21 | 1323 | |
| 10 | 956 | | 22 | 1339 | |
| 11 | 1010 | | 23 | 1358 | |
| 12 | ~~1027~~ | | 24 | 1432 | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1438 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | ~~9.5"~~ | ~~13250 mL~~ | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Lucky **Bottle** 2 **of** 2

**Personnel:** KS, ST **Date/Time On-Site:** _____

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-03 | -WC |
| **Approx Sample Volume (mL):** | 8000 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 1512 | Success | 13 | 2/23/25 1810 | Success |
| 2 | 1524 | | 14 | 1849 | |
| 3 | 1533 | | 15 | | |
| 4 | 1541 | | 16 | | |
| 5 | 1549 | | 17 | | |
| 6 | 1558 | | 18 | | |
| 7 | 1608 | | 19 | | |
| 8 | 1620 | | 20 | | |
| 9 | 1634 | | 21 | | |
| 10 | 1650 | | 22 | | |
| 11 | 1711 | | 23 | | |
| 12 | 1740 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1910

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State, Main)

**STATION:** Whitewater

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 2/22/25 1047

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 10:52 | 1.57 | 0.00 | 0.00 | – |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | ~~2.0~~ 2.57" |
| **Hysteresis:** | 1" |
| **Flow Pulse Interval:** | 1093.0 cf |

**On-Site**
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 2/22 10:54
- ☐ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 2/22/25 1109

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/24/25 9:54

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 9:55 | 7.827 | 1.466 | 0.826 | – |
| | **Downloaded to:** | Stevens Laptop | | |
| | | | | |

**On-Site**
- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- ☒ Direct or Remote; Date/time 2/24 9:54
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 2/24/25 10:05

# Composite Sample Collection

**STATION:** Wakewater
**Personnel:** ST, PB
**Bottle** 1 **of** 0
**Date/Time On-Site:** 2/23/25 9:16

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-11- | -WC |
| **Approx Sample Volume (mL):** | 11750 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 7:40 | No liquid detected | 13 | 2/23/25 10:33 | Success |
| 2 | 8:13 | Success | 14 | 1041 | |
| 3 | 834 | | 15 | 1049 | |
| 4 | 851 | | 16 | 1058 | |
| 5 | 9:07 | Power failed | 17 | 1107 | |
| 6 | 923 | | 18 | 1117 | |
| 7 | 937 | Success | 19 | 1127 | |
| 8 | 949 | | 20 | 1136 | |
| 9 | 959 | | 21 | 1146 | |
| 10 | 1009 | | 22 | 1155 | |
| 11 | 1017 | | 23 | 1205 | |
| 12 | 1025 | | 24 | 1216 | |

**Comments:** 0.6 amp-hr used on battery. ~~Unsure of [illegible] for 40[illegible]~~ ~~failed [illegible]~~ ST Replacing battery @ 9:25

**Date/Time Off-Site:** 2/23/25

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1225 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater
**Personnel:** KJ/ST
**Bottle** 2 **of** 6
**Date/Time On-Site:** 2/23/25 1740

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223--11 | -WC |
| **Approx Sample Volume (mL):** | 4250 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 1227 | Success | 13 | 1542 | No liquid detected |
| 2 | 1239 | ↓ | 14 | 1551 | ↓ |
| 3 | 1253 | ↓ | 15 | 1558 | ↓ |
| 4 | 1308 | ↓ | 16 | 1605 | Sample skipped |
| 5 | 1324 | ↓ | 17 | 1611 | No liquid detected |
| 6 | 1340 | ↓ | 18 | 1617 | ↓ |
| 7 | 1358 | ↓ | 19 | 1623 | ↓ |
| 8 | 1416 | No more liquid | 20 | 1630 | ↓ |
| 9 | 1433 | No liquid detected | 21 | 1637 | ↓ |
| 10 | 1453 | ↓ | 22 | 1644 | ↓ |
| 11 | 1513 | ↓ | 23 | 1652 | ↓ |
| 12 | 1530 | ↓ | 24 | 1701 | ↓ |

**Comments:** Purged line to attempt to clear the strainer. Restarted the program with a new bottle.

**Date/Time Off-Site:** 2/23/25

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☑ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☑ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1745 |
| | ☑ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater
**Personnel:** KS, ST
**Bottle** 3 **of** 30 ST
**Date/Time On-Site:** 2/23/25 @ 2000

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | -WC |
| **Approx Sample Volume (mL):** | |
| **Clarity (ex. Clear, Cloudy, Silty):** | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 1753 | No Liquid detected | 13 | | |
| 2 | 1812 | ↓ | 14 | | |
| 3 | 1836 | | 15 | | |
| 4 | 1907 | | 16 | | |
| 5 | 1936 | | 17 | | |
| 6 | | | 18 | | |
| 7 | | | 19 | | |
| 8 | | | 20 | | |
| 9 | | | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:** Composite bottle not submitted to the WQL due to lack of representativeness. Duration of error messages accounted for > 50% of total composite sample time. Later determined the sampler tubing disconnected from its mounting points on the Pipe and the strainer disconnected from the tubing.

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State), Main)

**STATION:** Main

## SET UP

**Personnel:** ST, ~~KC~~ ST KJ

**Date/Time On-Site:** 2/22/25 12:03

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 12:09 | 1.214 | 0.00 | 0.00 | |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 2.2 |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 622 cf |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time 2/22 12:12
- ☐ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 2/22/25 1218

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/26/25 13:27

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 13:27 | 1.109 | 0.00 | 0.04 | |
| | **Downloaded to:** | Stevens USB | | |
| | | | | |

**On-Site**

- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 1327 2/26
- ☒ Retrieve data
- ☐ Change Wireless Power Control to Dry Weather
- ☐ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 2/26/25 13:31

# Composite Sample Collection

**STATION:** Main
**Personnel:** KJ, ST

**Bottle** 1 **of** 1
**Date/Time On-Site:** 2/23/25 1950

| | | | |
|---|---|---|---|
| ☒ Halt sampler program | | | |
| ☒ Put lid on sample bottle; label sample bottle | | | |
| **Sample ID:** | 250223-12 | -WC | |
| **Approx Sample Volume (mL):** | 7500 ml | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | | |
| **QA/QC Sample ID:** | | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23 7:32 | Success | 13 | 2/23/25 1525 | Success |
| 2 | 821 | | 14 | 1544 | |
| 3 | 906 | | 15 | 1604 | |
| 4 | 936 | | 16 | 1632 | |
| 5 | 955 | | 17 | 1728 | |
| 6 | 1019 | | 18 | | |
| 7 | 1050 | | 19 | | |
| 8 | 1120 | | 20 | | |
| 9 | 1154 | | 21 | | |
| 10 | 1244 | | 22 | | |
| 11 | 1338 | | 23 | | |
| 12 | 1503 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1951

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter<br>☒ Keep flowmeter running<br>☒ Add ice to sample transport cooler | ☐ Keep flowmeter running<br>☐ Install new 15L bottle; add ice<br>☐ Restart program from beginning<br>**Date/Time Restarted:** _____<br>☐ Verify running |

**Liquid Height vs. Approximate Sample Volume Conversion Chart**

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, State) and Main

**TATION:** Americana

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 2/22/25 11:40

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:45 | 4.98 | 1.36 | 1.964 | 12.17 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 6.00" |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 4036 cf |

**On-Site**
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 2/22 11:48
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 2/22/25 11:57

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/24/25 9:45

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 9:47 | 14.407 | 13.026 | 4.105 | 12.4 |
| | **Downloaded to:** | Stevens Laptop | | |
| | | | | |

**On-Site**
- ☐ Replace flowmeter battery
- ☐ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- ☒ Direct or Remote; Date/time 2/24/25 9:47
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 2/24/25

# Composite Sample Collection

**STATION:** AMBAG CATCH
**Personnel:** KJ, DMW

**Bottle** 1ST of 4TH
**Date/Time On-Site:** 2/23/25 7:25

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250223-14 -WC |
| **Approx Sample Volume (mL):** | 1400 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | CLEAR |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | CLEAR |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/22 17:05 | Success | 13 | 2/23 01:57 | Success |
| 2 | 19:25 | | 14 | 2:32 | |
| 3 | 20:05 | | 15 | 3:07 | |
| 4 | 20:41 | | 16 | 3:42 | |
| 5 | 21:16 | | 17 | 4:16 | |
| 6 | 21:51 | | 18 | 4:51 | |
| 7 | 22:26 | | 19 | 5:25 | |
| 8 | 23:02 | | 20 | 5:51 | |
| 9 | 23:37 | | 21 | 6:14 | |
| 10 | 2/23 00:12 | | 22 | 6:37 | |
| 11 | 00:47 | | 23 | 6:59 | |
| 12 | 01:22 | | 24 | 7:17 | |

**Comments:** Bottle 1 was discarded because it contained primarily pre storm dry weather samples.

**Date/Time Off-Site:** 2/23/25 7:27

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 7:25 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** ~~2~~ 1ST **of** 4

**Personnel:** ST, KT **Date/Time On-Site:** 2/23/25 1220

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250223-14 -WC |
| **Approx Sample Volume (mL):** | 14750 ml |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 734 | Success | 13 | 2/23/25 1004 | Success |
| 2 | 749 | | 14 | 1013 | |
| 3 | 804 | | 15 | 1023 | |
| 4 | 818 | | 16 | 1034 | |
| 5 | 832 | | 17 | 1046 | |
| 6 | 847 | | 18 | 1057 | |
| 7 | 900 | | 19 | 1108 | |
| 8 | 913 | | 20 | 1119 | |
| 9 | 925 | | 21 | 1130 | |
| 10 | 936 | | 22 | 1141 | |
| 11 | 946 | | 23 | 1153 | |
| 12 | 955 | | 24 | 1205 | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1216

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 ~~1216~~ 1208 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | ~~10.5"~~ | ~~14750 mL~~ |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** ~~3~~ 3ST **of** ~~4~~ 5

**Personnel:** KJ, ST **Date/Time On-Site:** 2/23/25 1705

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223 - 14 | -WC |
| **Approx Sample Volume (mL):** | 14000 | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 1217 | Success | 13 | 2/23/25 1518 | Success |
| 2 | 1231 | | 14 | 1528 | |
| 3 | 1245 | | 15 | 1537 | |
| 4 | 1259 | | 16 | 1545 | |
| 5 | 1313 | | 17 | 1553 | |
| 6 | 1327 | | 18 | 1601 | |
| 7 | 1342 | | 19 | 1610 | |
| 8 | 1357 | | 20 | 1619 | |
| 9 | 1413 | | 21 | 1628 | |
| 10 | 1430 | | 22 | 1639 | |
| 11 | 1448 | | 23 | 1651 | |
| 12 | 1505 | | 24 | 1703 | |

**Comments:**

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1710 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | ~ 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

3 of 3

**STATION:** Americana **Bottle** ~~1~~ 3rd **of** ~~1~~ 4

**Personnel:** ST, KS **Date/Time On-Site:** 2/23/25 1940

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-14-WC | -WC |
| **Approx Sample Volume (mL):** | 5000 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Clear | |
| **QA/QC Sample ID:** | | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 1717 | Success | 13 | | |
| 2 | 1731 | | 14 | | |
| 3 | 1746 | | 15 | | |
| 4 | 1802 | | 16 | | |
| 5 | 1818 | | 17 | | |
| 6 | 1834 | | 18 | | |
| 7 | 1851 | | 19 | | |
| 8 | 1909 | | 20 | | |
| 9 | 1927 | | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1947

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – HACH (Lucky, [redacted], AS_6)

**STATION:** AS-6

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 2/22/25 1118

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11.23 | 0.05 | 0.00 | 0.00 | ~~12.3~~ ST |
| | | | | 13.5 V |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 1.05" |
| **Deadband:** | 1 |
| **Trigger Volume:** | 2252 gal |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:**

**Date/Time Off-Site:** 2/22/25 1132

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 2/24/25 15:39

| Time | Level (in) | Flow ~~(cfs)~~ gpm | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 15:39 | 1.26 | 0.00 | 0.00 | – | 12.8 |
| **Downloaded to:** | | | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| ☒ Halt program on flowmeter | ☐ Replace flowmeter battery |
| ☐ Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| ☐ Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

**Date/Time Off-Site:** _____

# Composite Sample Collection

**STATION:** AS-6 **Bottle** 1 **of** 3

**Personnel:** ST, RS **Date/Time On-Site:** 2/23 10:16

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-206 | -WC |
| **Approx Sample Volume (mL):** | 14750ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23 721 | Success | 13 | 2/23/25 948 | Success |
| 2 | 749 | | 14 | 954 | |
| 3 | 804 | | 15 | 10:05 | |
| 4 | 817 | | 16 | 10:06 | |
| 5 | 829 | | 17 | 1012 | |
| 6 | 841 | | 18 | 1018 | |
| 7 | 853 | | 19 | 1024 | |
| 8 | 904 | | 20 | 1030 | |
| 9 | 915 | | 21 | 1037 | |
| 10 | 925 | | 22 | 1045 | |
| 11 | 934 | | 23 | 1053 | |
| 12 | 941 | | 24 | 1101 | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1108

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1104 |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS_U **Bottle** 2 **of** 3

**Personnel:** ST, KS **Date/Time On-Site:** 2/23/25 1533

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250223-2006 -WC |
| **Approx Sample Volume (mL):** | 14750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/23/25 1116 | Success | 13 | 2/23/25 1257 | Success |
| 2 | 1123 | | 14 | 1309 | |
| 3 | 1130 | | 15 | 1321 | |
| 4 | 1137 | | 16 | 1333 | |
| 5 | 1144 | | 17 | 1346 | |
| 6 | 1151 | | 18 | 1359 | |
| 7 | 1159 | | 19 | 1414 | |
| 8 | 1207 | | 20 | 1433 | |
| 9 | 1216 | | 21 | 1451 | |
| 10 | 1225 | | 22 | 1509 | |
| 11 | 1235 | | 23 | 1520 | |
| 12 | 1246 | | 24 | 1528 | |

**Comments:**

**Date/Time Off-Site:** 2/23/25 1548

| If sampling is complete: | If continuing sampling (sample bottle change-out): |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 2/23/25 1551 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS_6 **Bottle** 3 **of** 3

**Personnel:** KJ, ST **Date/Time On-Site:** _____

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250223-206 | -WC |
| **Approx Sample Volume (mL):** | 11000 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Gray | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 2/20/25 1547 | Success | 13 | 2/23/25 1711 | Success |
| 2 | 1552 | | 14 | 1725 | |
| 3 | 1557 | | 15 | 1742 | |
| 4 | 1602 | | 16 | 1801 | |
| 5 | 1607 | | 17 | 1823 | |
| 6 | 1613 | | 18 | 1852 | |
| 7 | 1619 | | 19 | | |
| 8 | 1625 | | 20 | | |
| 9 | 1632 | | 21 | | |
| 10 | 1640 | | 22 | | |
| 11 | 1649 | | 23 | | |
| 12 | 1659 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 2/23/25

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00393-01 | ACST1B | 250223-03-WG | Water | | 2/23/25 7:14 | 2/23/25 9:21 |
| AC00393-02 | ACST1B | 250223-11-WG | Water | | 2/23/25 8:00 | 2/23/25 9:21 |
| AC00393-03 | ACST1B | 250223-11-101 | Water | | 2/23/25 12:00 | 2/23/25 9:21 |
| AC00393-04 | ACST1B | 250223-11-001 | Water | | 2/23/25 12:00 | 2/23/25 9:21 |
| AC00393-05 | ACST1B | 250223-12-WG | Water | | 2/23/25 8:14 | 2/23/25 9:21 |
| AC00393-06 | ACST1B | 250223-14-WG | Water | | 2/23/25 5:50 | 2/23/25 9:21 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-03-WG |
| Date/Time Collected: | 02/23/2025 07:14 | | |
| Lab Number: | AC00393-01 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 35.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-11-WG |
| Date/Time Collected: | 02/23/2025 08:00 | | |
| Lab Number: | AC00393-02 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 127.4 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-11-101 |
| Date/Time Collected: | 02/23/2025 12:00 | | |
| Lab Number: | AC00393-03 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 98.7 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-11-001 |
| Date/Time Collected: | 02/23/2025 12:00 | | |
| Lab Number: | AC00393-04 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | <1.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | U |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-12-WG |
| Date/Time Collected: | 02/23/2025 08:14 | | |
| Lab Number: | AC00393-05 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 18.9 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-14-WG |
| Date/Time Collected: | 02/23/2025 05:50 | | |
| Lab Number: | AC00393-06 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 17.3 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B250605** | | | | | | | | | |
| **Blank (B250605-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 02/24/2025 | ALG | |
| **LCS (B250605-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 02/24/2025 | ALG | |
| **Duplicate (B250605-DUP1)** | Source ID: AC00393-06 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 02/24/2025 | ALG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

## Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Steven Turner
Kristen Jolliffe
Mike VanLydegraf Paul Bomber

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | BOD5 - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00393-01 | 2/23/25 | | 0714 | | 250223-03-WG | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| -02 | | | 0800 | | 250223-11-WG | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| -03 | | | 1200 | | 250223-11-101 | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| -04 | | | 1200 | | 250223-11-001 | ST | X | X | | | | | | | | | | | | X | | | | | | 1 |
| -05 | | | 0814 | | 250223-12-WG | KJ | X | X | | | | | | | | | | | | X | | | | | | 1 |
| -06 | | | 0550 | | 250223-14-WG | KJ | X | X | | | | | | | | | | | | X | | | | | | 1 |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 3/27/25 ~~2256~~ 0356 | ASE 2/23/25 0921 | |



AC00393

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00392-01 | ACST1B | 250223-206-WG | Water | | 2/23/25 7:44 | 2/23/25 9:21 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250223-206-WG |
| Date/Time Collected: | 02/23/2025 07:44 | | |
| Lab Number: | AC00392-01 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B250605 | 161.6 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 02/23/25 10:44 | 2/24/25 11:22 | ALG | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B250606 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 02/23/25 | 2/23/25 10:03 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B250605** | | | | | | | | | |
| **Blank (B250605-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 02/24/2025 | ALG | |
| **LCS (B250605-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 02/24/2025 | ALG | |
| **Duplicate (B250605-DUP1)** | Source ID: AC00393-06 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 02/24/2025 | ALG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/03/2025 13:14

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristin Jolliffe
Steven Turner
Mike Van Lydegraf Paul Bomber

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | Analysis Methods: E. Coli - IDEXX Colilert | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00392-01 | 2/23/25 | | 0744 | | 250223-206-WG | KJ KE | X | X | | X | 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristin Jolliffe | 2/23/25 ~~2356~~ 0356 | KSE 2/23/250921 | |



AC00392

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00396-01 | ACST1C | 250223-03-WC | Water | | 2/23/25 18:49 | 2/24/25 7:03 |
| ***Comments:*** | Temperature at receipt: 6.6 degrees C | | | | | |
| AC00396-02 | ACST1C | 250223-12-WC | Water | | 2/23/25 17:28 | 2/24/25 7:03 |
| ***Comments:*** | Temperature at receipt: 1.9 degrees C | | | | | |
| AC00396-03 | ACST1C | 250223-14-WC | Water | | 2/23/25 19:27 | 2/24/25 7:03 |
| ***Comments:*** | Temperature at receipt: 4.7 degrees C | | | | | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250223-03-WC |
| Date/Time Collected: | 02/23/2025 06:51 - 02/23/2025 18:49 | | |
| Lab Number: | AC00396-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250688 | 0.127 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 03/03/25 | 3/3/25 14:27 | ALN | |
| BOD5 | B250618 | 2.77 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/24/25 | 3/1/25 9:48 | MCB | |
| Chloride | B250609 | 3.93 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/24/25 | 2/24/25 20:46 | ALN | |
| COD | B250612 | 22.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/24/25 | 2/24/25 12:50 | NTS | |
| Nitrate-Nitrite, as N | B250662 | 0.193 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/27/25 | 2/27/25 11:16 | RKG | |
| TKN | B250705 | 0.546 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 03/05/25 | 3/5/25 10:24 | JAL | |
| Total Dissolved Solids | B250636 | 39.0 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/25/25 | 2/27/25 9:08 | MCB | |
| Total Suspended Solids | B250614 | 12.6 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/24/25 | 2/24/25 12:04 | RHC | |
| Turbidity | B250617 | 25.8 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 9:21 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250619 | 0.0512 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 11:35 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250697 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 03/06/25 | 3/6/25 12:33 | SAS | U |
| Arsenic | B250684 | 0.89 | ug/L | 0.050 | 0.050 | EPA 200.8 | 03/02/25 | 3/5/25 14:08 | DMW | |
| Cadmium | B250684 | <0.0200 | ug/L | 0.020 | 0.020 | EPA 200.8 | 03/02/25 | 3/5/25 14:08 | DMW | U |
| Calcium | B250639 | 5.17 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/26/25 | 3/3/25 12:59 | SMC | |
| Lead | B250684 | 0.61 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/02/25 | 3/5/25 14:08 | DMW | |
| Magnesium | B250639 | 790 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/26/25 | 3/3/25 12:59 | SMC | |
| Phosphorus as P | B250639 | 0.103 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/26/25 | 3/3/25 12:59 | SMC | |
| Hardness | B250639 | 16.2 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/26/25 | 3/3/25 12:59 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250685 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:14 | DMW | U |
| Copper | B250685 | 1.9 | ug/L | 0.14 | 0.14 | EPA 200.8 | 03/01/25 | 3/1/25 18:14 | DMW | |
| Lead | B250685 | 0.026 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:14 | DMW | |
| Zinc | B250685 | 10.2 | ug/L | 0.50 | 0.50 | EPA 200.8 | 03/01/25 | 3/1/25 18:14 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250223-12-WC |
| Date/Time Collected: | 02/23/2025 07:32 - 02/23/2025 17:28 | | |
| Lab Number: | AC00396-02 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250688 | 0.302 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 03/03/25 | 3/3/25 14:13 | ALN | |
| BOD5 | B250618 | 4.66 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/24/25 | 3/1/25 9:44 | MCB | |
| Chloride | B250609 | 28.0 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/24/25 | 2/24/25 22:32 | ALN | |
| COD | B250612 | 51.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/24/25 | 2/24/25 10:58 | NTS | |
| Nitrate-Nitrite, as N | B250662 | 0.133 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/27/25 | 2/27/25 11:17 | RKG | |
| TKN | B250705 | 0.783 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 03/05/25 | 3/5/25 10:25 | JAL | |
| Total Dissolved Solids | B250636 | 75.3 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/25/25 | 2/27/25 9:09 | MCB | |
| Total Suspended Solids | B250614 | 29.1 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/24/25 | 2/24/25 10:09 | RHC | |
| Turbidity | B250617 | 32.9 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 9:11 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250619 | 0.0395 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 11:36 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250697 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 03/06/25 | 3/6/25 12:53 | SAS | U |
| Arsenic | B250684 | 0.90 | ug/L | 0.050 | 0.050 | EPA 200.8 | 03/02/25 | 3/5/25 14:26 | DMW | |
| Cadmium | B250684 | 0.047 | ug/L | 0.020 | 0.020 | EPA 200.8 | 03/02/25 | 3/5/25 14:26 | DMW | |
| Calcium | B250639 | 4.52 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/26/25 | 3/3/25 13:02 | SMC | |
| Lead | B250684 | 2.3 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/02/25 | 3/5/25 14:26 | DMW | |
| Magnesium | B250639 | 2310 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/26/25 | 3/3/25 13:02 | SMC | |
| Phosphorus as P | B250639 | 0.100 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/26/25 | 3/3/25 13:02 | SMC | |
| Hardness | B250639 | 20.8 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/26/25 | 3/3/25 13:02 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250685 | 0.016 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:32 | DMW | |
| Copper | B250685 | 2.9 | ug/L | 0.14 | 0.14 | EPA 200.8 | 03/01/25 | 3/1/25 18:32 | DMW | |
| Lead | B250685 | 0.044 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:32 | DMW | |
| Zinc | B250685 | 24.0 | ug/L | 0.50 | 0.50 | EPA 200.8 | 03/01/25 | 3/1/25 18:32 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250223-14-WC |
| Date/Time Collected: | 02/23/2025 07:34 - 02/23/2025 19:27 | | |
| Lab Number: | AC00396-03 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250688 | 0.0779 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 03/03/25 | 3/3/25 14:10 | ALN | |
| BOD5 | B250618 | 3.56 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/24/25 | 3/1/25 9:39 | MCB | |
| Chloride | B250609 | 72.4 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/24/25 | 2/24/25 22:59 | ALN | |
| COD | B250612 | 31.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/24/25 | 2/24/25 10:58 | NTS | |
| Nitrate-Nitrite, as N | B250662 | 0.687 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/27/25 | 2/27/25 11:18 | RKG | |
| TKN | B250705 | 0.583 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 03/05/25 | 3/5/25 10:26 | JAL | |
| Total Dissolved Solids | B250636 | 214 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/25/25 | 2/27/25 9:09 | MCB | |
| Total Suspended Solids | B250614 | 21.3 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/24/25 | 2/24/25 10:08 | RHC | |
| Turbidity | B250617 | 13.9 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 10:56 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250619 | 0.0604 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 11:41 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250697 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 03/06/25 | 3/6/25 13:04 | SAS | U |
| Arsenic | B250684 | 3.4 | ug/L | 0.050 | 0.050 | EPA 200.8 | 03/02/25 | 3/5/25 14:31 | DMW | |
| Cadmium | B250684 | 0.032 | ug/L | 0.020 | 0.020 | EPA 200.8 | 03/02/25 | 3/5/25 14:31 | DMW | |
| Calcium | B250639 | 26.5 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/26/25 | 3/3/25 13:19 | SMC | |
| Lead | B250684 | 1.9 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/02/25 | 3/5/25 14:31 | DMW | |
| Magnesium | B250639 | 5260 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/26/25 | 3/3/25 13:19 | SMC | |
| Phosphorus as P | B250639 | 0.123 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/26/25 | 3/3/25 13:19 | SMC | |
| Hardness | B250639 | 87.8 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/26/25 | 3/3/25 13:19 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250685 | 0.012 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:36 | DMW | |
| Copper | B250685 | 2.0 | ug/L | 0.14 | 0.14 | EPA 200.8 | 03/01/25 | 3/1/25 18:36 | DMW | |
| Lead | B250685 | 0.036 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:36 | DMW | |
| Zinc | B250685 | 15.4 | ug/L | 0.50 | 0.50 | EPA 200.8 | 03/01/25 | 3/1/25 18:36 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B250609** | | | | | | | | | |
| **Blank (B250609-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 02/24/2025 | ALN | U |
| **LCS (B250609-BS1)** | | | | | | | | | |
| Chloride | | | 99.7 | 90-110 | | | 02/24/2025 | ALN | |
| **Duplicate (B250609-DUP1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | | | 0.0651 | 10 | 02/24/2025 | ALN | D |
| **Duplicate (B250609-DUP2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | | | 0.104 | 10 | 02/24/2025 | ALN | |
| **Matrix Spike (B250609-MS1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | 98.4 | 90-110 | | | 02/24/2025 | ALN | D |
| **Matrix Spike (B250609-MS2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | 99.7 | 90-110 | | | 02/24/2025 | ALN | |
| **Matrix Spike (B250609-MS3)** Source ID: WQ00263-05 | | | | | | | | | |
| Chloride | | | 93.1 | 90-110 | | | 02/24/2025 | ALN | |
| **Matrix Spike Dup (B250609-MSD1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | 97.5 | 90-110 | 0.731 | 10 | 02/24/2025 | ALN | D |
| **Matrix Spike Dup (B250609-MSD2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | 98.1 | 90-110 | 1.37 | 10 | 02/24/2025 | ALN | |
| **Batch: B250612** | | | | | | | | | |
| **Blank (B250612-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 02/24/2025 | NTS | U |
| **LCS (B250612-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 02/24/2025 | NTS | |
| **Duplicate (B250612-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| COD | | | | | 4.44 | 10 | 02/24/2025 | NTS | |
| **Batch: B250614** | | | | | | | | | |
| **Blank (B250614-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 02/24/2025 | RHC | U |
| **LCS (B250614-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 99.2 | 90-110 | | | 02/24/2025 | RHC | |
| **Duplicate (B250614-DUP1)** Source ID: LS02266-02 | | | | | | | | | |
| Total Suspended Solids | | | | | 0.367 | 20 | 02/24/2025 | RHC | |
| **Duplicate (B250614-DUP2)** Source ID: BB04547-01 | | | | | | | | | |
| Total Suspended Solids | | | | | 3.61 | 20 | 02/24/2025 | RHC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250617** | | | | | | | | | |
| **Blank (B250617-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 02/24/2025 | ALN | U |
| **LCS (B250617-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 02/24/2025 | ALN | |
| **Duplicate (B250617-DUP1)** | Source ID: AC00396-02 | | | | | | | | |
| Turbidity | | | | | 1.81 | 25 | 02/24/2025 | ALN | |
| **Batch: B250618** | | | | | | | | | |
| **Blank (B250618-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 03/01/2025 | MCB | U |
| **LCS (B250618-BS1)** | | | | | | | | | |
| BOD5 | | | 98.3 | 84.6-115.4 | | | 03/01/2025 | MCB | |
| **LCS (B250618-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 03/01/2025 | MCB | |
| **Duplicate (B250618-DUP1)** | Source ID: WB03632-07 | | | | | | | | |
| BOD5 | | | | | 0.532 | 30 | 03/01/2025 | MCB | |
| **Duplicate (B250618-DUP2)** | Source ID: LS02266-02 | | | | | | | | |
| BOD5 | | | | | 1.48 | 30 | 03/01/2025 | MCB | |
| **Batch: B250636** | | | | | | | | | |
| **Blank (B250636-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 02/27/2025 | MCB | U |
| **LCS (B250636-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 96.2 | 90-110 | | | 02/27/2025 | MCB | |
| **Duplicate (B250636-DUP1)** | Source ID: EN00062-02 | | | | | | | | |
| Total Dissolved Solids | | | | | 1.76 | 10 | 02/27/2025 | MCB | |
| **Batch: B250662** | | | | | | | | | |
| **Blank (B250662-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/27/2025 | RKG | U |
| **Blank (B250662-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/27/2025 | RKG | U |
| **LCS (B250662-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 99.1 | 90-110 | | | 02/27/2025 | RKG | |
| **LCS (B250662-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 02/27/2025 | RKG | |
| **Duplicate (B250662-DUP1)** | Source ID: AC00395-01 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 13.1 | 10 | 02/27/2025 | RKG | QC-02 |
| **Duplicate (B250662-DUP2)** | Source ID: LS02262-01 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.0258 | 10 | 02/27/2025 | RKG | |
| **Duplicate (B250662-DUP3)** | Source ID: LS02268-02 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.805 | 10 | 02/27/2025 | RKG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250662 (Continued)** | | | | | | | | | |
| **Matrix Spike (B250662-MS1)** Source ID: AC00395-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.2 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike (B250662-MS2)** Source ID: LS02262-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 107 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike (B250662-MS3)** Source ID: LS02268-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 103 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD1)** Source ID: AC00395-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.8 | 90-110 | 0.360 | 10 | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD2)** Source ID: LS02262-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 109 | 90-110 | 0.324 | 10 | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD3)** Source ID: LS02268-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 101 | 90-110 | 0.639 | 10 | 02/27/2025 | RKG | |
| **Batch: B250688** | | | | | | | | | |
| **Blank (B250688-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 03/03/2025 | ALN | U |
| **Blank (B250688-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 03/03/2025 | ALN | U |
| **LCS (B250688-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 98.2 | 90-110 | | | 03/03/2025 | ALN | |
| **LCS (B250688-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 104 | 90-110 | | | 03/03/2025 | ALN | |
| **Duplicate (B250688-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | | | 2.79 | 20 | 03/03/2025 | ALN | |
| **Duplicate (B250688-DUP2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | | | 1.58 | 20 | 03/03/2025 | ALN | D |
| **Matrix Spike (B250688-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 03/03/2025 | ALN | |
| **Matrix Spike (B250688-MS2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | 99.6 | 84-115 | | | 03/03/2025 | ALN | D |
| **Matrix Spike Dup (B250688-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | 102 | 84-115 | 0.355 | 20 | 03/03/2025 | ALN | |
| **Matrix Spike Dup (B250688-MSD2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | 98.5 | 84-115 | 0.618 | 20 | 03/03/2025 | ALN | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250705** | | | | | | | | | |
| **Blank (B250705-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 03/05/2025 | JAL | U |
| **Blank (B250705-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 03/05/2025 | JAL | U |
| **LCS (B250705-BS1)** | | | | | | | | | |
| TKN | | | 95.2 | 80-120 | | | 03/05/2025 | JAL | |
| **LCS (B250705-BS2)** | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 03/05/2025 | JAL | |
| **Duplicate (B250705-DUP1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | | | 0.799 | 20 | 03/05/2025 | JAL | D |
| **Duplicate (B250705-DUP2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | | | 0.223 | 20 | 03/05/2025 | JAL | |
| **Duplicate (B250705-DUP3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | | | 0.366 | 20 | 03/05/2025 | JAL | D |
| **Matrix Spike (B250705-MS1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | 97.3 | 80-120 | | | 03/05/2025 | JAL | D |
| **Matrix Spike (B250705-MS2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | 93.5 | 80-120 | | | 03/05/2025 | JAL | |
| **Matrix Spike (B250705-MS3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | 111 | 80-120 | | | 03/05/2025 | JAL | D |
| **Matrix Spike Dup (B250705-MSD1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | 97.6 | 80-120 | 0.101 | 20 | 03/05/2025 | JAL | D |
| **Matrix Spike Dup (B250705-MSD2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | 95.8 | 80-120 | 0.595 | 20 | 03/05/2025 | JAL | |
| **Matrix Spike Dup (B250705-MSD3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | 108 | 80-120 | 0.876 | 20 | 03/05/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 03/14/2025 09:57

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B250619** | | | | | | | | | |
| **Blank (B250619-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 02/24/2025 | JAL | U |
| **LCS (B250619-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 96.7 | 90-110 | | | 02/24/2025 | JAL | |
| **Duplicate (B250619-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.574 | 10 | 02/24/2025 | JAL | |
| **Matrix Spike (B250619-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | | | 02/24/2025 | JAL | |
| **Matrix Spike Dup (B250619-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.188 | 10 | 02/24/2025 | JAL | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B250639** | | | | | | | | | |
| **Blank (B250639-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 03/03/2025 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 03/03/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 03/03/2025 | SMC | U |
| **LCS (B250639-BS1)** | | | | | | | | | |
| Calcium | | | 102 | 85-115 | | | 03/03/2025 | SMC | |
| Magnesium | | | 102 | 85-115 | | | 03/03/2025 | SMC | |
| Phosphorus as P | | | 103 | 85-115 | | | 03/03/2025 | SMC | |
| **Duplicate (B250639-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | | | 0.624 | 20 | 03/03/2025 | SMC | |
| Magnesium | | | | | 1.18 | 20 | 03/03/2025 | SMC | |
| Phosphorus as P | | | | | 1.16 | 20 | 03/03/2025 | SMC | |
| **Matrix Spike (B250639-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | | | 03/03/2025 | SMC | |
| Magnesium | | | 103 | 70-130 | | | 03/03/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | | | 03/03/2025 | SMC | |
| **Matrix Spike Dup (B250639-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | 0.470 | 20 | 03/03/2025 | SMC | |
| Magnesium | | | 103 | 70-130 | 0.0382 | 20 | 03/03/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | 0.912 | 20 | 03/03/2025 | SMC | |
| **Batch: B250684** | | | | | | | | | |
| **Blank (B250684-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 03/05/2025 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 03/05/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 03/05/2025 | DMW | U |
| **LCS (B250684-BS1)** | | | | | | | | | |
| Arsenic | | | 102 | 85-115 | | | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 03/05/2025 | DMW | |
| Lead | | | 99.4 | 85-115 | | | 03/05/2025 | DMW | |
| **Duplicate (B250684-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | | | 1.97 | 20 | 03/05/2025 | DMW | |
| Cadmium | | | | | NR | 20 | 03/05/2025 | DMW | U |
| Lead | | | | | 2.25 | 20 | 03/05/2025 | DMW | |
| **Matrix Spike (B250684-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | 102 | 70-130 | | | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 70-130 | | | 03/05/2025 | DMW | |
| Lead | | | 99.4 | 70-130 | | | 03/05/2025 | DMW | |
| **Matrix Spike Dup (B250684-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | 100 | 70-130 | 1.49 | 20 | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 70-130 | 0.377 | 20 | 03/05/2025 | DMW | |
| Lead | | | 98.1 | 70-130 | 1.27 | 20 | 03/05/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B250697** | | | | | | | | | |
| **Blank (B250697-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 03/06/2025 | SAS | U |
| **LCS (B250697-BS1)** | | | | | | | | | |
| Mercury | | | 102 | 85-115 | | | 03/06/2025 | SAS | |
| **Duplicate (B250697-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 03/06/2025 | SAS | U |
| **Duplicate (B250697-DUP2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | | | 37.9 | 20 | 03/06/2025 | SAS | QC-02 |
| **Matrix Spike (B250697-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | | | 103 | 70-130 | | | 03/06/2025 | SAS | |
| **Matrix Spike (B250697-MS2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | 96.7 | 70-130 | | | 03/06/2025 | SAS | |
| **Matrix Spike Dup (B250697-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | | | 107 | 70-130 | 3.44 | 20 | 03/06/2025 | SAS | |
| **Matrix Spike Dup (B250697-MSD2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | 103 | 70-130 | 5.72 | 20 | 03/06/2025 | SAS | |
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B250685** | | | | | | | | | |
| **Blank (B250685-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 03/01/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 03/01/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 03/01/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 03/01/2025 | DMW | U |
| **LCS (B250685-BS1)** | | | | | | | | | |
| Cadmium | | | 103 | 85-115 | | | 03/01/2025 | DMW | |
| Copper | | | 100 | 85-115 | | | 03/01/2025 | DMW | |
| Lead | | | 99.6 | 85-115 | | | 03/01/2025 | DMW | |
| Zinc | | | 99.8 | 85-115 | | | 03/01/2025 | DMW | |
| **Duplicate (B250685-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 03/01/2025 | DMW | U |
| Copper | | | | | 0.728 | 10 | 03/01/2025 | DMW | |
| Lead | | | | | 1.01 | 10 | 03/01/2025 | DMW | |
| Zinc | | | | | 1.04 | 10 | 03/01/2025 | DMW | |
| **Matrix Spike (B250685-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | 102 | 70-130 | | | 03/01/2025 | DMW | |
| Copper | | | 97.0 | 70-130 | | | 03/01/2025 | DMW | |
| Lead | | | 96.0 | 70-130 | | | 03/01/2025 | DMW | |
| Zinc | | | 100 | 70-130 | | | 03/01/2025 | DMW | |
| **Matrix Spike Dup (B250685-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | 101 | 70-130 | 1.13 | 10 | 03/01/2025 | DMW | |
| Copper | | | 96.3 | 70-130 | 0.609 | 10 | 03/01/2025 | DMW | |
| Lead | | | 95.5 | 70-130 | 0.513 | 10 | 03/01/2025 | DMW | |
| Zinc | | | 98.4 | 70-130 | 1.33 | 10 | 03/01/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:57

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| QC-02 | The RPD is greater than the method acceptance criteria. At least one of the values used to calculate the RPD, is less than or equal to the PQL. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

## Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order:** 63069586
**Project:** Stormwater PI
Sampler(s): Kristen Jolliffe
Steven Turner

Samples left in receiving room overnight in coolers. Too temp. in the morning.

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Temp | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | BOD$_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride – EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACO0396-01 | 2/23/25 | 2/23/25 | 0651 | 1849 | 250223-03-WC | 6.6°C | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| -02 | 2/23/25 | 2/23/25 | 0732 | 1728 | 250223-12-WC | 1.9 | KJ | X | | X | | | | | | | | | | | | | | | | | | 1 |
| -03 | 2/23/25 | 2/23/25 | 0734 | 1927 | 250223-14-WC | 4.7 | KJ | X | | X | | | | | | | | | | | | | | | | | | 3 |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| ~~2/23/25 2044~~ Kristen Jolliffe | 2/23/25 2044 | ASC 3/24/25 0703 | Please split 250223-03-WC for a duplicate called 250223-03-103. ↑ Did not use 250223-03-WC as a duplicate as per ACHD's request ASC ACO0396 |

241010 ST

## Leslea Basterrechea

**From:** April Griffith
**Sent:** Friday, March 14, 2025 8:42 AM
**To:** Leslea Basterrechea
**Subject:** ACHD 2/24/25

Hi Leslea,

On the morning of 2/24/25, I contacted Steven Turner and notified him that one of the storm samples for composite was above 6.0 °C, at 6.6 °C. He said to go ahead and process the sample with comments of the noted temperature.

Thank you,

April Griffith
*Water Quality Lab Supervisor*
*Public Works*
Office: (208)608-7299
agriffith@cityofboise.org
cityofboise.org

*Creating a city for everyone.*

Report Date: 03/14/2025 09:58

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00395-01 | ACST1C | 250223-206-WC | Water | | 2/23/25 18:52 | 2/24/25 7:03 |
| ***Comments:*** | Temperature at receipt: 6.0 degrees C | | | | | |
| AC00395-02 | ACST1C | 250223-206-103 | Water | | 2/23/25 18:52 | 2/24/25 7:03 |
| ***Comments:*** | dup of 250223-206-WC, Temperature at receipt: 6.0 degrees C | | | | | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:58

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250223-206-WC |
| Date/Time Collected: | 02/23/2025 07:21 - 02/23/2025 18:52 | | |
| Lab Number: | AC00395-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250688 | 0.0719 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 03/03/25 | 3/3/25 14:34 | ALN | |
| BOD5 | B250618 | 6.17 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/24/25 | 3/1/25 10:00 | MCB | |
| Chloride | B250609 | 17.8 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/24/25 | 2/24/25 19:53 | ALN | |
| COD | B250612 | 56.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/24/25 | 2/24/25 12:50 | NTS | |
| Nitrate-Nitrite, as N | B250662 | 0.0847 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/27/25 | 2/27/25 11:10 | RKG | |
| TKN | B250705 | 0.905 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 03/05/25 | 3/5/25 10:21 | JAL | |
| Total Dissolved Solids | B250636 | 76.5 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/25/25 | 2/27/25 9:21 | MCB | |
| Total Suspended Solids | B250614 | 37.6 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/24/25 | 2/24/25 12:07 | RHC | |
| Turbidity | B250617 | 45.2 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 10:45 | ALN | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250619 | 0.104 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 11:33 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250697 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 03/06/25 | 3/6/25 12:46 | SAS | U |
| Arsenic | B250684 | 2.1 | ug/L | 0.050 | 0.050 | EPA 200.8 | 03/02/25 | 3/5/25 13:59 | DMW | |
| Cadmium | B250684 | 0.044 | ug/L | 0.020 | 0.020 | EPA 200.8 | 03/02/25 | 3/5/25 13:59 | DMW | |
| Calcium | B250639 | 3.04 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/26/25 | 3/3/25 12:53 | SMC | |
| Lead | B250684 | 4.2 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/02/25 | 3/5/25 13:59 | DMW | |
| Magnesium | B250639 | 1660 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/26/25 | 3/3/25 12:53 | SMC | |
| Phosphorus as P | B250639 | 0.224 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/26/25 | 3/3/25 12:53 | SMC | |
| Hardness | B250639 | 14.4 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/26/25 | 3/3/25 12:53 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250685 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:04 | DMW | U |
| Copper | B250685 | 3.7 | ug/L | 0.14 | 0.14 | EPA 200.8 | 03/01/25 | 3/1/25 18:04 | DMW | |
| Lead | B250685 | 0.21 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:04 | DMW | |
| Zinc | B250685 | 10.1 | ug/L | 0.50 | 0.50 | EPA 200.8 | 03/01/25 | 3/1/25 18:04 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:58

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250223-206-103 |
| Date/Time Collected: | 02/23/2025 07:21 - 02/23/2025 18:52 | | |
| Lab Number: | AC00395-02 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B250688 | 0.0784 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 03/03/25 | 3/3/25 14:31 | ALN | |
| BOD5 | B250618 | 6.18 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 02/24/25 | 3/1/25 9:56 | MCB | |
| Chloride | B250609 | 18.3 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 02/24/25 | 2/24/25 20:19 | ALN | |
| COD | B250612 | 61.0 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 02/24/25 | 2/24/25 12:50 | NTS | |
| Nitrate-Nitrite, as N | B250662 | 0.0970 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 02/27/25 | 2/27/25 11:14 | RKG | |
| TKN | B250705 | 0.941 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 03/05/25 | 3/5/25 10:23 | JAL | |
| Total Dissolved Solids | B250636 | 75.0 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 02/25/25 | 2/27/25 9:20 | MCB | |
| Total Suspended Solids | B250614 | 36.8 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 02/24/25 | 2/24/25 12:06 | RHC | |
| Turbidity | B250617 | 46.3 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 10:51 | ALN | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B250619 | 0.103 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 02/24/25 | 2/24/25 11:34 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B250697 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 03/06/25 | 3/6/25 12:50 | SAS | U |
| Arsenic | B250684 | 2.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 03/02/25 | 3/5/25 14:04 | DMW | |
| Cadmium | B250684 | 0.038 | ug/L | 0.020 | 0.020 | EPA 200.8 | 03/02/25 | 3/5/25 14:04 | DMW | |
| Calcium | B250639 | 3.03 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 02/26/25 | 3/3/25 12:56 | SMC | |
| Lead | B250684 | 4.0 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/02/25 | 3/5/25 14:04 | DMW | |
| Magnesium | B250639 | 1660 | ug/L | 80.0 | 80.0 | EPA 200.7 | 02/26/25 | 3/3/25 12:56 | SMC | |
| Phosphorus as P | B250639 | 0.222 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 02/26/25 | 3/3/25 12:56 | SMC | |
| Hardness | B250639 | 14.4 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 02/26/25 | 3/3/25 12:56 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B250685 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:09 | DMW | U |
| Copper | B250685 | 4.9 | ug/L | 0.14 | 0.14 | EPA 200.8 | 03/01/25 | 3/1/25 18:09 | DMW | |
| Lead | B250685 | 0.16 | ug/L | 0.010 | 0.010 | EPA 200.8 | 03/01/25 | 3/1/25 18:09 | DMW | |
| Zinc | B250685 | 9.6 | ug/L | 0.50 | 0.50 | EPA 200.8 | 03/01/25 | 3/1/25 18:09 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:58

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B250609** | | | | | | | | | |
| **Blank (B250609-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 02/24/2025 | ALN | U |
| **LCS (B250609-BS1)** | | | | | | | | | |
| Chloride | | | 99.7 | 90-110 | | | 02/24/2025 | ALN | |
| **Duplicate (B250609-DUP1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | | | 0.0651 | 10 | 02/24/2025 | ALN | D |
| **Duplicate (B250609-DUP2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | | | 0.104 | 10 | 02/24/2025 | ALN | |
| **Matrix Spike (B250609-MS1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | 98.4 | 90-110 | | | 02/24/2025 | ALN | D |
| **Matrix Spike (B250609-MS2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | 99.7 | 90-110 | | | 02/24/2025 | ALN | |
| **Matrix Spike (B250609-MS3)** Source ID: WQ00263-05 | | | | | | | | | |
| Chloride | | | 93.1 | 90-110 | | | 02/24/2025 | ALN | |
| **Matrix Spike Dup (B250609-MSD1)** Source ID: BB04543-04 | | | | | | | | | |
| Chloride | | | 97.5 | 90-110 | 0.731 | 10 | 02/24/2025 | ALN | D |
| **Matrix Spike Dup (B250609-MSD2)** Source ID: AC00396-01 | | | | | | | | | |
| Chloride | | | 98.1 | 90-110 | 1.37 | 10 | 02/24/2025 | ALN | |
| **Batch: B250612** | | | | | | | | | |
| **Blank (B250612-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 02/24/2025 | NTS | U |
| **LCS (B250612-BS1)** | | | | | | | | | |
| COD | | | 98.7 | 90-110 | | | 02/24/2025 | NTS | |
| **Duplicate (B250612-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| COD | | | | | 4.44 | 10 | 02/24/2025 | NTS | |
| **Batch: B250614** | | | | | | | | | |
| **Blank (B250614-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 02/24/2025 | RHC | U |
| **LCS (B250614-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 99.2 | 90-110 | | | 02/24/2025 | RHC | |
| **Duplicate (B250614-DUP1)** Source ID: LS02266-02 | | | | | | | | | |
| Total Suspended Solids | | | | | 0.367 | 20 | 02/24/2025 | RHC | |
| **Duplicate (B250614-DUP2)** Source ID: BB04547-01 | | | | | | | | | |
| Total Suspended Solids | | | | | 3.61 | 20 | 02/24/2025 | RHC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250617** | | | | | | | | | |
| **Blank (B250617-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 02/24/2025 | ALN | U |
| **LCS (B250617-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 02/24/2025 | ALN | |
| **Duplicate (B250617-DUP1)** | Source ID: AC00396-02 | | | | | | | | |
| Turbidity | | | | | 1.81 | 25 | 02/24/2025 | ALN | |
| **Batch: B250618** | | | | | | | | | |
| **Blank (B250618-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 03/01/2025 | MCB | U |
| **LCS (B250618-BS1)** | | | | | | | | | |
| BOD5 | | | 98.3 | 84.6-115.4 | | | 03/01/2025 | MCB | |
| **LCS (B250618-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 03/01/2025 | MCB | |
| **Duplicate (B250618-DUP1)** | Source ID: WB03632-07 | | | | | | | | |
| BOD5 | | | | | 0.532 | 30 | 03/01/2025 | MCB | |
| **Duplicate (B250618-DUP2)** | Source ID: LS02266-02 | | | | | | | | |
| BOD5 | | | | | 1.48 | 30 | 03/01/2025 | MCB | |
| **Batch: B250636** | | | | | | | | | |
| **Blank (B250636-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 02/27/2025 | MCB | U |
| **LCS (B250636-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 96.2 | 90-110 | | | 02/27/2025 | MCB | |
| **Duplicate (B250636-DUP1)** | Source ID: EN00062-02 | | | | | | | | |
| Total Dissolved Solids | | | | | 1.76 | 10 | 02/27/2025 | MCB | |
| **Batch: B250662** | | | | | | | | | |
| **Blank (B250662-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/27/2025 | RKG | U |
| **Blank (B250662-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 02/27/2025 | RKG | U |
| **LCS (B250662-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 99.1 | 90-110 | | | 02/27/2025 | RKG | |
| **LCS (B250662-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 02/27/2025 | RKG | |
| **Duplicate (B250662-DUP1)** | Source ID: AC00395-01 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 13.1 | 10 | 02/27/2025 | RKG | QC-02 |
| **Duplicate (B250662-DUP2)** | Source ID: LS02262-01 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.0258 | 10 | 02/27/2025 | RKG | |
| **Duplicate (B250662-DUP3)** | Source ID: LS02268-02 | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.805 | 10 | 02/27/2025 | RKG | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250662 (Continued)** | | | | | | | | | |
| **Matrix Spike (B250662-MS1)** Source ID: AC00395-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.2 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike (B250662-MS2)** Source ID: LS02262-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 107 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike (B250662-MS3)** Source ID: LS02268-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 103 | 90-110 | | | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD1)** Source ID: AC00395-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.8 | 90-110 | 0.360 | 10 | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD2)** Source ID: LS02262-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 109 | 90-110 | 0.324 | 10 | 02/27/2025 | RKG | |
| **Matrix Spike Dup (B250662-MSD3)** Source ID: LS02268-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 101 | 90-110 | 0.639 | 10 | 02/27/2025 | RKG | |
| **Batch: B250688** | | | | | | | | | |
| **Blank (B250688-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 03/03/2025 | ALN | U |
| **Blank (B250688-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 03/03/2025 | ALN | U |
| **LCS (B250688-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 98.2 | 90-110 | | | 03/03/2025 | ALN | |
| **LCS (B250688-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 104 | 90-110 | | | 03/03/2025 | ALN | |
| **Duplicate (B250688-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | | | 2.79 | 20 | 03/03/2025 | ALN | |
| **Duplicate (B250688-DUP2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | | | 1.58 | 20 | 03/03/2025 | ALN | D |
| **Matrix Spike (B250688-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 03/03/2025 | ALN | |
| **Matrix Spike (B250688-MS2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | 99.6 | 84-115 | | | 03/03/2025 | ALN | D |
| **Matrix Spike Dup (B250688-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Ammonia, as N | | | 102 | 84-115 | 0.355 | 20 | 03/03/2025 | ALN | |
| **Matrix Spike Dup (B250688-MSD2)** Source ID: BB04550-03 | | | | | | | | | |
| Ammonia, as N | | | 98.5 | 84-115 | 0.618 | 20 | 03/03/2025 | ALN | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B250705** | | | | | | | | | |
| **Blank (B250705-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 03/05/2025 | JAL | U |
| **Blank (B250705-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 03/05/2025 | JAL | U |
| **LCS (B250705-BS1)** | | | | | | | | | |
| TKN | | | 95.2 | 80-120 | | | 03/05/2025 | JAL | |
| **LCS (B250705-BS2)** | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 03/05/2025 | JAL | |
| **Duplicate (B250705-DUP1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | | | 0.799 | 20 | 03/05/2025 | JAL | D |
| **Duplicate (B250705-DUP2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | | | 0.223 | 20 | 03/05/2025 | JAL | |
| **Duplicate (B250705-DUP3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | | | 0.366 | 20 | 03/05/2025 | JAL | D |
| **Matrix Spike (B250705-MS1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | 97.3 | 80-120 | | | 03/05/2025 | JAL | D |
| **Matrix Spike (B250705-MS2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | 93.5 | 80-120 | | | 03/05/2025 | JAL | |
| **Matrix Spike (B250705-MS3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | 111 | 80-120 | | | 03/05/2025 | JAL | D |
| **Matrix Spike Dup (B250705-MSD1)** Source ID: BB04538-01 | | | | | | | | | |
| TKN | | | 97.6 | 80-120 | 0.101 | 20 | 03/05/2025 | JAL | D |
| **Matrix Spike Dup (B250705-MSD2)** Source ID: BB04543-04 | | | | | | | | | |
| TKN | | | 95.8 | 80-120 | 0.595 | 20 | 03/05/2025 | JAL | |
| **Matrix Spike Dup (B250705-MSD3)** Source ID: WB03626-06 | | | | | | | | | |
| TKN | | | 108 | 80-120 | 0.876 | 20 | 03/05/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B250619** | | | | | | | | | |
| **Blank (B250619-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 02/24/2025 | JAL | U |
| **LCS (B250619-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 96.7 | 90-110 | | | 02/24/2025 | JAL | |
| **Duplicate (B250619-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.574 | 10 | 02/24/2025 | JAL | |
| **Matrix Spike (B250619-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | | | 02/24/2025 | JAL | |
| **Matrix Spike Dup (B250619-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.188 | 10 | 02/24/2025 | JAL | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B250639** | | | | | | | | | |
| **Blank (B250639-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 03/03/2025 | SMC | U |
| Magnesium | <80 | ug/L | | | | | 03/03/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 03/03/2025 | SMC | U |
| **LCS (B250639-BS1)** | | | | | | | | | |
| Calcium | | | 102 | 85-115 | | | 03/03/2025 | SMC | |
| Magnesium | | | 102 | 85-115 | | | 03/03/2025 | SMC | |
| Phosphorus as P | | | 103 | 85-115 | | | 03/03/2025 | SMC | |
| **Duplicate (B250639-DUP1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | | | 0.624 | 20 | 03/03/2025 | SMC | |
| Magnesium | | | | | 1.18 | 20 | 03/03/2025 | SMC | |
| Phosphorus as P | | | | | 1.16 | 20 | 03/03/2025 | SMC | |
| **Matrix Spike (B250639-MS1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | | | 03/03/2025 | SMC | |
| Magnesium | | | 103 | 70-130 | | | 03/03/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | | | 03/03/2025 | SMC | |
| **Matrix Spike Dup (B250639-MSD1)** Source ID: AC00396-02 | | | | | | | | | |
| Calcium | | | 103 | 70-130 | 0.470 | 20 | 03/03/2025 | SMC | |
| Magnesium | | | 103 | 70-130 | 0.0382 | 20 | 03/03/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | 0.912 | 20 | 03/03/2025 | SMC | |
| **Batch: B250684** | | | | | | | | | |
| **Blank (B250684-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 03/05/2025 | DMW | U |
| Cadmium | <0.020 | ug/L | | | | | 03/05/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 03/05/2025 | DMW | U |
| **LCS (B250684-BS1)** | | | | | | | | | |
| Arsenic | | | 102 | 85-115 | | | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 85-115 | | | 03/05/2025 | DMW | |
| Lead | | | 99.4 | 85-115 | | | 03/05/2025 | DMW | |
| **Duplicate (B250684-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | | | 1.97 | 20 | 03/05/2025 | DMW | |
| Cadmium | | | | | NR | 20 | 03/05/2025 | DMW | U |
| Lead | | | | | 2.25 | 20 | 03/05/2025 | DMW | |
| **Matrix Spike (B250684-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | 102 | 70-130 | | | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 70-130 | | | 03/05/2025 | DMW | |
| Lead | | | 99.4 | 70-130 | | | 03/05/2025 | DMW | |
| **Matrix Spike Dup (B250684-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Arsenic | | | 100 | 70-130 | 1.49 | 20 | 03/05/2025 | DMW | |
| Cadmium | | | 104 | 70-130 | 0.377 | 20 | 03/05/2025 | DMW | |
| Lead | | | 98.1 | 70-130 | 1.27 | 20 | 03/05/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B250697** | | | | | | | | | |
| **Blank (B250697-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 03/06/2025 | SAS | U |
| **LCS (B250697-BS1)** | | | | | | | | | |
| Mercury | | | 102 | 85-115 | | | 03/06/2025 | SAS | |
| **Duplicate (B250697-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 03/06/2025 | SAS | U |
| **Duplicate (B250697-DUP2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | | | 37.9 | 20 | 03/06/2025 | SAS | QC-02 |
| **Matrix Spike (B250697-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | | | 103 | 70-130 | | | 03/06/2025 | SAS | |
| **Matrix Spike (B250697-MS2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | 96.7 | 70-130 | | | 03/06/2025 | SAS | |
| **Matrix Spike Dup (B250697-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Mercury | . | | 107 | 70-130 | 3.44 | 20 | 03/06/2025 | SAS | |
| **Matrix Spike Dup (B250697-MSD2)** Source ID: BB04543-03 | | | | | | | | | |
| Mercury | | | 103 | 70-130 | 5.72 | 20 | 03/06/2025 | SAS | |
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B250685** | | | | | | | | | |
| **Blank (B250685-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 03/01/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 03/01/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 03/01/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 03/01/2025 | DMW | U |
| **LCS (B250685-BS1)** | | | | | | | | | |
| Cadmium | | | 103 | 85-115 | | | 03/01/2025 | DMW | |
| Copper | | | 100 | 85-115 | | | 03/01/2025 | DMW | |
| Lead | | | 99.6 | 85-115 | | | 03/01/2025 | DMW | |
| Zinc | | | 99.8 | 85-115 | | | 03/01/2025 | DMW | |
| **Duplicate (B250685-DUP1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 03/01/2025 | DMW | U |
| Copper | | | | | 0.728 | 10 | 03/01/2025 | DMW | |
| Lead | | | | | 1.01 | 10 | 03/01/2025 | DMW | |
| Zinc | | | | | 1.04 | 10 | 03/01/2025 | DMW | |
| **Matrix Spike (B250685-MS1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | 102 | 70-130 | | | 03/01/2025 | DMW | |
| Copper | | | 97.0 | 70-130 | | | 03/01/2025 | DMW | |
| Lead | | | 96.0 | 70-130 | | | 03/01/2025 | DMW | |
| Zinc | | | 100 | 70-130 | | | 03/01/2025 | DMW | |
| **Matrix Spike Dup (B250685-MSD1)** Source ID: AC00396-01 | | | | | | | | | |
| Cadmium | | | 101 | 70-130 | 1.13 | 10 | 03/01/2025 | DMW | |
| Copper | | | 96.3 | 70-130 | 0.609 | 10 | 03/01/2025 | DMW | |
| Lead | | | 95.5 | 70-130 | 0.513 | 10 | 03/01/2025 | DMW | |
| Zinc | | | 98.4 | 70-130 | 1.33 | 10 | 03/01/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 03/14/2025 09:58

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| QC-02 | The RPD is greater than the method acceptance criteria. At least one of the values used to calculate the RPD, is less than or equal to the PQL. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

## Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586
**Project:** Stormwater PI
Sampler(s): Kristen Jolliffe
Steven Turner

Samples left in receiving room overnight in coolers. Took temp in the morning.

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Temp | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | BOD5 - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACC0395-01 | 2/23/25 | 2/23/25 | 0721 | 1852 | 250223-206-WC | 6.0 | KS | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 2/23/25 1644 | ASE 2/24/25 0703 | Split 250223-206-WC for a duplicate per ACHD's request and called 250223-~~06~~206-103 ASE ACC0395 |

241010 ST

# Technical Memorandum

1290 W. Myrtle St. Suite 340
Boise, ID 83702

Phone: 801.316.9859

Prepared for: Ada County Highway District

Project Title: NPDES Phase I Stormwater Support WY 2025

Project No.: 196784

**Technical Memorandum**

Subject: ACHD Phase I Storm Event Report for May 17, 2025

Date: July 22, 2025

To: Monica Lowe

Cc: Steven Turner
Kristen Jolliffe

From: Zuly Lapa, Project Engineer

Prepared by: Reghan Hodges, Project Engineer

Reviewed by: Zuly Lapa, EIT, Project Engineer
Nikki McDonald, PE, Project Manager

*Limitations:*

*This document was prepared solely for ACHD in accordance with professional standards at the time the services were performed and in accordance with the contract between ACHD and Brown and Caldwell dated September 14, 2024. This document is governed by the specific scope of work authorized by ACHD; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by ACHD and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.*

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. The Main Alternate (Main Alt) monitoring site may be used when high river flows surcharge the Main storm drain pipes. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the May 17, 2025, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

**Table 2-1. WY 2025 Samples Collected**

| Date | Lucky | Whitewater | Main | Main Alt | Americana | AS_6 |
|---|---|---|---|---|---|---|
| December 14, 2024 | G, C[1] | G, C | G, C | -- | G, C | G, C |
| January 31, 2025 | --, C | --, C[2] | --. C | -- | --, C[2] | --, C[3] |
| February 23, 2025 | G, C[4] | G, -- | G, C | -- | G, C[2] | G, C |
| May 17, 2025 | G, C | --, C | -- | G,-- | G, C | G, C[4] |
| Unqualified Samples: | 3G, 2C | 2G, 2C | 3G, 3C | | 3G, 2C | 3G, 2C |
| Samples Remaining: | 0G, 1C | 1G, 1C | 0G, 0C | | 0G, 1C | 0G, 1C |

*Notes:*

*-- = no samples taken.*

*C = composite sample.*

*G = grab sample.*

[1] *Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

[2] *Composite sample qualified due to lack of representativeness (50%–75%).*

[3] *Sample rejected due to lack of representativeness (<50%).*

[4] *Composite sample qualified due to exceedance of 6.0 °C.*

# Section 3: Storm Event Summary

The May 17, 2025, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from May 17, 2025, is included in Attachment A for reference.

**Friday, May 16, 2025 (Sampling Event Communication & Set up)**

- On the morning of May 16, the National Weather Service issued a forecast for a showery, convective system starting May 17 at 0900 until 2200. The chance of precipitation was 90%, with a 75% probability of rain amounts to be greater than 0.1 inches over a 12-hour period. The forecasted precipitation for this event was 0.25 inches of rain.
- Setup was accomplished on the morning of May 16. An expected precipitation depth of 0.15 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

**Saturday, May 17, 2025 (Storm Event)**

- The runoff started on May 17 at approximately 1044 and ended on May 18 at approximately 0641.
- Precipitation totals ranged between 0.42 and 0.51 inches at local rain gauges.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Lucky, Whitewater, Main Alt, Americana and AS_6 sites showing flow, rain, and sample collection data are included in Attachment B.

## 3.2 Sampling Summary

Lucky, Whitewater, Americana and AS_6 monitoring stations were set up on May 16, 2025, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Lucky, Whitewater, Americana and AS_6 flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Grab Samples

Two, two-member teams mobilized to collect stormwater runoff grab samples and verify operation of the automatic sampling equipment on May 17 around 1143. Grab samples for Lucky, Main Alt, and Americana were submitted to the Boise City Public Works Water Quality Laboratory (WQL) at 1354 on May 17. The grab sample for AS_6 was submitted thereafter at 1727. Results for grab samples, including field parameter and analytical data, are included in Table 2. Laboratory analytical reports are included in Attachment D.

### Composite Samples

Composite samples were collected at the Lucky, Whitewater, Americana and AS_6 monitoring stations and submitted to the WQL at 1230 on May 18. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

A summary of quality control samples collected during the May 17, 2025, storm event is presented below in Table 4-1. A field blank and a field duplicate were collected from the Main Alt monitoring station. The analytical results are included in Table 4-1.

| Table 4-1. Quality Control Samples | | | |
|---|---|---|---|
| Sample ID | Sample Type | Parent Sample | Conclusions |
| 250517-12-001 | Field blank | Main Alternate grab | No *E. coli* detected in the field blank. |
| 250517-12-101 | Field duplicate | Main Alternate grab | Relative percent difference was within the acceptable range. |

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A.

An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. All composite samples met the criteria. However, the composite sample collected at AS_6 exceeded the preservation temperature maximum. Therefore, all constituents analyzed are considered estimates with the exception of total metals, hardness, and chloride, in accordance with 40CFR136.

Acceptance and performance criteria for analytical and non-analytical data were met for Lucky, Whitewater and Americana composite samples.

All grab samples collected met acceptance criteria.

# Section 5: Notes and Recommendations

### Whitewater

During the storm event, the sampler at Whitewater displayed a “No liquid detected” message during the composite sample attempt for Bottle 2. The “No liquid detected” message initially appeared at sample attempt 0109 and continued until attempt 0145. However, after arriving onsite at 0147, ACHD observed that despite the message, water was flowing through the tubing and into the composite bottle during this time. ACHD restarted the program with the same bottle. Other sample messages (“No more liquid”, “No liquid detected”, and “Sample skipped”) were recorded from attempt 0151 to attempt 0207. Subsamples were successful after the attempt at 0212. Bottle 2 was full prior to switching it with Bottle 3.

After the storm event, ACHD troubleshot the sampling equipment and discovered the pump tubing on the sampler was misaligned on the liquid detect sensor resulting in the “No liquid detected” subsample messages. Since all the subsamples from the first and third bottles resulted in “Success”, the tubing misalignment likely occurred when the second composite bottle was installed. Given the observation of the sampler taking subsamples despite the “No liquid detected” message, the volumes from attempt 0109 to 0145 were added to the total Bottle 2 volume. The volumes from attempt 0151 to attempt 0207 were not added to the total Bottle 2 volume.

### AS_6

ACHD installed a cooler on-site with a lid to address the composite bottle’s temperature exceedance during sample collection. This, along with increased ice during transport, will be essential in maintaining the composite bottles below 6.0°C.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main Alt | Americana | AS_6 |
| Grab samples collected and submitted? | YES | NO | YES | YES | YES |
| Composite samples collected and submitted? | YES | YES | NO | YES | YES |
| Trigger volume | 3,950 gal | 1,093 cf | -- | 4,036 cf | 2,252 gal |
| Sampler enable condition (in) or Velocity cutoff (fps) | Level > 2.62 | Level > 5.25 | -- | Level > 7.0 | Level > 1.0 |
| Deadband/ Hysteresis (in) | 1.0" | 1.0" | 1.0" | 1.0" | 1.0" |
| Runoff start time | 1117[1] | 1044[1] | 1133[1] | 1100[1] | 1632[1] |
| Grab sample collection time | 1202 | -- | 1150 | 1214 | 1652 |
| Composite sample stop time | 0318 | 0503 | -- | 0603 | 0513 |
| Runoff stop time | 0330[2] | 0515[2] | 0530[2] | 0641[2] | 0515[2] |
| Volume of discharge sampled ($ft^3$) | 17,531 | 71,430 | -- | 210,689 | 13,697 |
| Total runoff volume ($ft^3$) | 19,373 | 102,805 | 16,049 | 246,235 | 19,063 |
| Percent of storm flow sampled (%) | 90% | 69% | -- | 86% | 72% |
| Composite sample duration (hrs) | 7 | 8 | -- | 17 | 9 |
| Storm Precipitation (in) | 0.42 | 0.44 | 0.45 | 0.45/0.51 | 0.45/0.51 |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | 32 | 35 | -- | 49 | 43 |
| :No More Liquid | -- | 3 | -- | -- | -- |
| :No Liquid Detected | -- | 18 | -- | -- | -- |
| :Sample Skipped | -- | 1 | -- | -- | -- |
| Number of composite bottles filled | 2 | 3 | -- | 3 | 2 |
| Composite sample volume (Approx.; ml) | 17,500 mL | 36,000 mL | -- | 28,500 mL | 24,250 mL |

Notes:

– = No data.

[1] Storm runoff started on 5/17/25.

[2] Storm runoff ended on 5/18/25.

**Table 2. Field and Analytical Data Summary**

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | mpn/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Lucky | 5/17/2025 | 250517-03-WG | 4.33 | 7.36 | 285.77 | 13.97 | 131.4 | 250517-03-WC | 37.8 | 188 | 1.67 | 20.3 | 58.0 | 149 | 50.7 | 0.558 | 0.272 | 0.500 | 0.225 | 3.80 | 2.0 | <0.0100 | 0.12 | 5.4 | 0.086 | 3.1 | 0.0138 | 32.9 |
| Whitewater | 5/17/2025 | -- | -- | -- | -- | -- | -- | 250517-11-WC | 31.6 | 135 | 8.01 | 31.9 | 48.5 | 97.7 | 80.8 | 0.435 | 0.225 | 0.242 | 0.237 | 2.40 | 2.0 | <0.0100 | 0.078 | 4.3 | 0.19 | 5.1 | 0.0146 | 20.8 |
| Main Alt | 5/17/2025 | 250517-12-WG | 7.30 | 6.48 | 194.17 | 17.60 | 5,210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Americana | 5/17/2025 | 250517-14-WG | 8.39 | 6.93 | 385.45 | 15.56 | 248.9 | 250517-14-WC | 25.4 | 132 | 17.2 | 53.9 | 38.9 | 74.8 | 104 | 0.320 | 0.163 | 0.323 | 0.429 | 1.64 | 3.0 | 0.012 | 0.070 | 5.0 | 0.10 | 4.1 | <0.0100 | 26.8 |
| AS_6 | 5/17/2025 | 250517-206-WG | 4.81 | 6.96 | 216.39 | 16.29 | 7,270 | 250517-206-WC | 67.6 [2J] | 262 [2J] | 4.36 | 27.8 | 67.3 [2J] | 169 [2J] | 106 [2J] | 1.09 [2J] | 0.543 [2J] | 0.338 [2J] | 0.213 [2J] | 4.45 [2J] | 2.5 | 0.015 [2J] | 0.10 | 9.4 [2J] | 0.41 [2J] | 7.7 | 0.0179 | 40.4 [2J] |

Notes:

-- = No data.

[2J] Composite sample qualified due to exceedance of 6.0° C.

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Lucky | 5/17/2025 | 180 | 0.675 | 0.605 | 0.272 | 4.59 |
| Whitewater | 5/17/2025 | 627 | 2.79 | 1.55 | 1.52 | 15.4 |
| Main Alt | 5/17/2025 | -- | -- | -- | -- | -- |
| Americana | 5/17/2025 | 1149 | 4.92 | 4.96 | 6.59 | 25.2 |
| AS_6 | 5/17/2025 | 201[2J] | 1.30[2J] | 0.402[2J] | 0.253[2J] | 5.29[2J] |

Notes:

-- = No data

[2J] Composite sample qualified due to exceedance of 6.0° C.

| Table 4. QC Sample Summary | | | | |
|---|---|---|---|---|
| Date | Parent Sample | Sample ID | Type | E. coli |
| | | | | mpn/100 mL |
| 5/17/2025 | 250517-12-WG | 250517-12-001 | Field Blank | <1.0 |
| 5/17/2025 | 250517-12-WG | 250517-12-101 | Field Duplicate | 6,090 |
| Calculated parent/duplicate RPD | | | | 2% |
| Allowable RPD | | | | 40% |

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 5/16/2025 | Time: 8:15 AM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | Yes |

| | |
|---|---|
| Past 72 hr Precip | |
| Date and time of expected event | 5/17 9:00 AM – 10:00 PM |
| Expected amount of precipitation | 0.25" |
| Percent chance of precipitation | 90% |
| Percent chance of >0.10" over 12 hours | 75% |

NWS Update

Spoke to Corey with NWS. A showery, convective system with lots of moisture will arrive on Saturday morning coming from the northwest. Showers will continue throughout the day with rain ending around 10:00 pm. We can expect to see 0.25" of rain through that time period.

Targeted Station & Samples

| Lucky | Whitewater | Main Alternate | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab | ☒ Grab |
| ☒ Composite | ☒ Composite | ☐ Composite | ☒ Composite | ☒ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☐ Light Rain | ☐ Rain | ☐ Rain on Snow |
| ☒ Scattered Showers | ☒ Thunder Showers | ☐ Snowmelt |
| ☐ Other: | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☐ Waiting on Antecedent Dry Period –
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: Boise ID
Issued by: National Weather Service Boise, ID
Last Update: 2:23 am MDT May 16, 2025

Today: A 40 percent chance of showers before noon. Cloudy through mid morning, then gradual clearing, with a high near 67. Northwest wind 3 to 6 mph.
Tonight: Increasing clouds, with a low around 48. Northwest wind around 6 mph becoming calm in the evening.
**Saturday: Showers likely, then showers and possibly a thunderstorm after noon.** High near 62. Light and variable wind becoming west northwest around 6 mph in the afternoon. **Chance of precipitation is 80%. New rainfall amounts between a tenth and quarter of an inch, except higher amounts possible in thunderstorms.**
**Saturday Night: Showers likely and possibly a thunderstorm before midnight, then a chance of showers.** Mostly cloudy, with a low around 44. West northwest wind 8 to 11 mph, with gusts as high as 21 mph. **Chance of precipitation is 70%. New precipitation amounts between a tenth and quarter of an inch, except higher amounts possible in thunderstorms.**
Sunday: A 30 percent chance of showers, mainly before noon. Partly sunny, with a high near 60. West northwest wind 10 to 17 mph, with gusts as high as 29 mph.

Sunday Night: Partly cloudy, with a low around 38.
Monday: Sunny, with a high near 68.
Monday Night: Mostly clear, with a low around 45.
Tuesday: Sunny, with a high near 76.
Tuesday Night: Clear, with a low around 47.
Wednesday: Sunny, with a high near 78.
Wednesday Night: Mostly clear, with a low around 48.
Thursday: Sunny, with a high near 77.

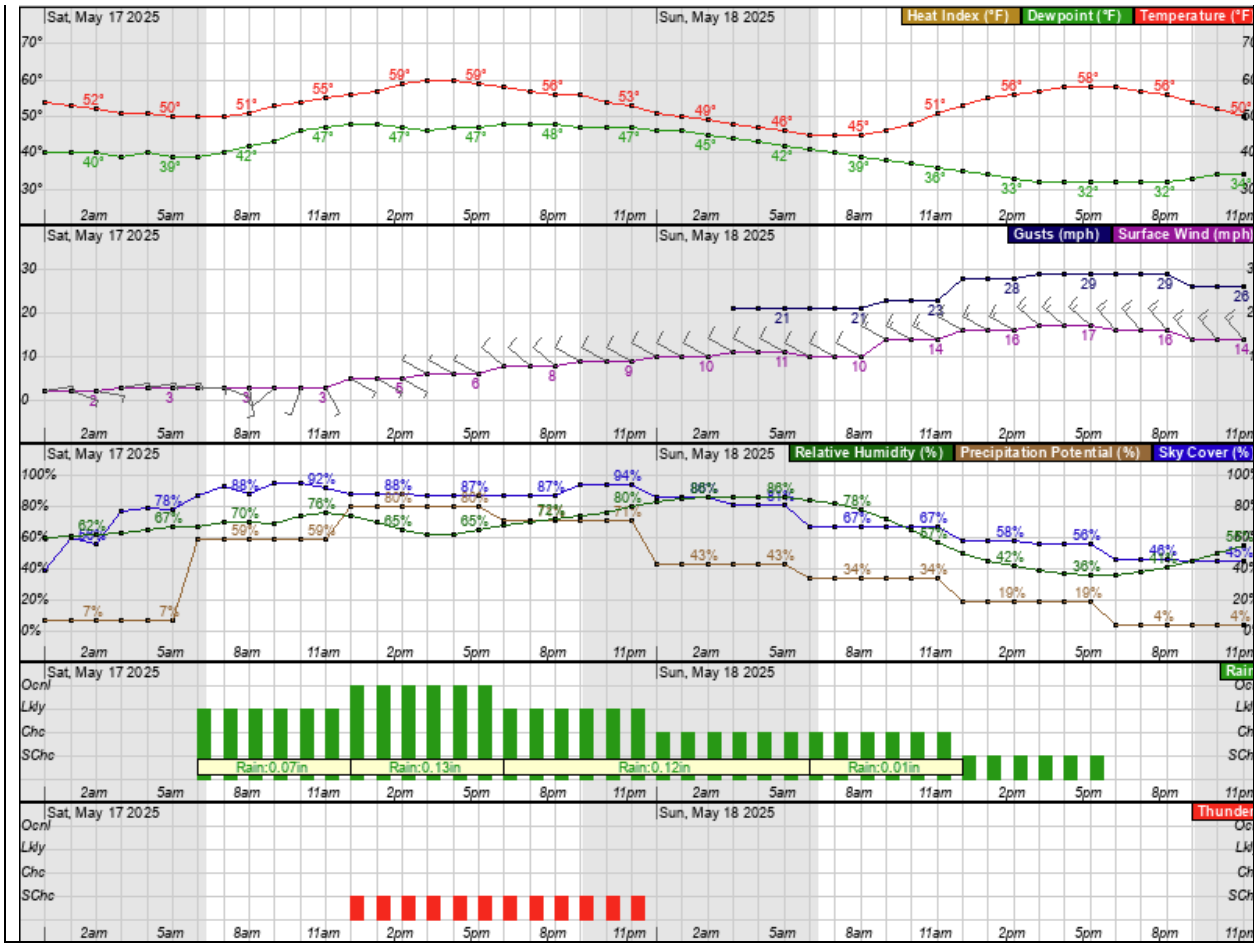
Forecast Discussion

Area Forecast Discussion
National Weather Service Boise ID
218 AM MDT Fri May 16 2025

.SHORT TERM...Today through Sunday night...A weak shortwave trough will bring light showers this morning. Skies will mostly clear out from west to east this afternoon. **A much more significant shortwave trough will move through the area late tonight and Saturday, bringing high chances (70-99%) of rain/snow and a chance of thunderstorms. QPF Saturday through Sunday night will range from 0.2-0.4 at lower elevations** up to 0.5 to 1 inch in the mountains. A cold front will accompany the system, moving through Saturday afternoon through Sunday morning. Snow accumulations Sat through Sunday night will range from 2 to 6 inches above around 7000 ft MSL. Temperatures today will be about 10 degrees below normal, then get a few degrees cooler Saturday and Sunday. Showers will decrease from west to east Sunday, and most showers will be in the higher terrain on the Idaho side Sunday afternoon. Winds will become fairly strong early Sunday, with gusts 30-45 mph common Sunday afternoon. The strongest winds will be south and east of Boise, and a wind advisory is likely to be needed as we get closer in time if guidance doesn`t change much.

.LONG TERM...Monday through Friday...An small upper level ridge will race over the area Monday, and should be followed by a weak and slightly moist shortwave embedded in zonal flow Tuesday. The result is a chance of showers across the higher terrain of the north Tuesday into Tuesday evening. Snow levels in the north will range from 6500 to 7500 ft MSL, with only minimal snow accumulations forecast. Zonal flow is forecast to continue Wed and Thu before being replaced by WSW flow Friday. This will lead to a dry period with a warming trend. Temperatures should climb to near normal Tue and Wed, before rising to a few degrees above normal Thu and Fri.

Hourly Forecast


Sat, May 17 2025
Sun, May 18 2025
Heat Index (°F)
Dewpoint (°F)
Temperature (°F
Gusts (mph)
Surface Wind (mph)
Relative Humidity (%)
Precipitation Potential (%)
Sky Cover (%
Rain:0.07in
Rain:0.13in
Rain:0.12in
Rain:0.01in
Ocnl
Lkly
Chc
SChc
2am
5am
8am
11am
2pm
5pm
8pm
11pm

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

Expected Precipitation Depth = 0.15
Aliquots per Sample = 17

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 8976.1 | **528** |
| Whitewater | 498 | 0.069 | 18574.5 | **1093** |
| Main | 79 | 0.246 | 10581.8 | **622** |
| Main Alt | 60 | 0.200 | 6534.0 | **384** |
| Americana | 875 | 0.144 | 68607.0 | **4036** |
| Americana Alt | 869 | 0.144 | 68136.6 | **4008** |
| AS_6 | 204 | 0.046 | 5109.6 | **301** |
| State | 34 | 0.127 | 2351.2 | **138** |

Notes:

Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

Where volume ($ft^3$) is the measured discharge, precip (ft) is the measured amount from local rain guage, and area ($ft^2$) is the watershed area.

Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

**STORM DATE: 05/17/2025**

| A. Event and Data Completeness | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | AS_6 Comp received at 7.6°C |
| 5. Inconsistencies/clarifications discussed with sampling team member | X | | | Discussed sampler messages at Whitewater |
| 6. All analytical reports from lab received | X | | | |

| B. Validation and Verification Methods | Yes | No | N/A | Notes |
|---|---|---|---|---|
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | X | | | |
| 5. Data quality objective achieved | X | | | |

| C. Specific Storm and Sample QA/QC Criteria | Lucky | Whitewater | Main Alt | Americana | AS_6 | Program Criteria | Met | Qualify | Reject |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | 0.00" | 0.00" | 0.00" | 0.00" | 0.00" | < 0.11" in 72 hrs | X | | |
| 2. Precipitation (inches) | 0.42" | 0.44" | 0.45" | 0.45"/ 0.51" | 0.45"/ 0.51" | > 0.10" | X | | |
| 3. Sampled amount (% of total run-off) | 90% | 69% | - | 86% | 72% | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | X | X AS_6 | |
| 4. Composite sample duration (hours) | 7 | 8 | - | 17 | 9 | | | | |
| 4. Ecoli sample holding time (hours) | 3.5 | - | 4 | 3.5 | 1 | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | X | | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | 11.5 | 9.5 | - | 7.5 | 8 | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

- AS_6 composite exceeded preservation temperature maximum, qualifying the sample. Therefore, all constituents are considered estimates with the exception of total metals, hardness and chloride.
- Main Alt composites completed for the water year, not targeted for this storm.

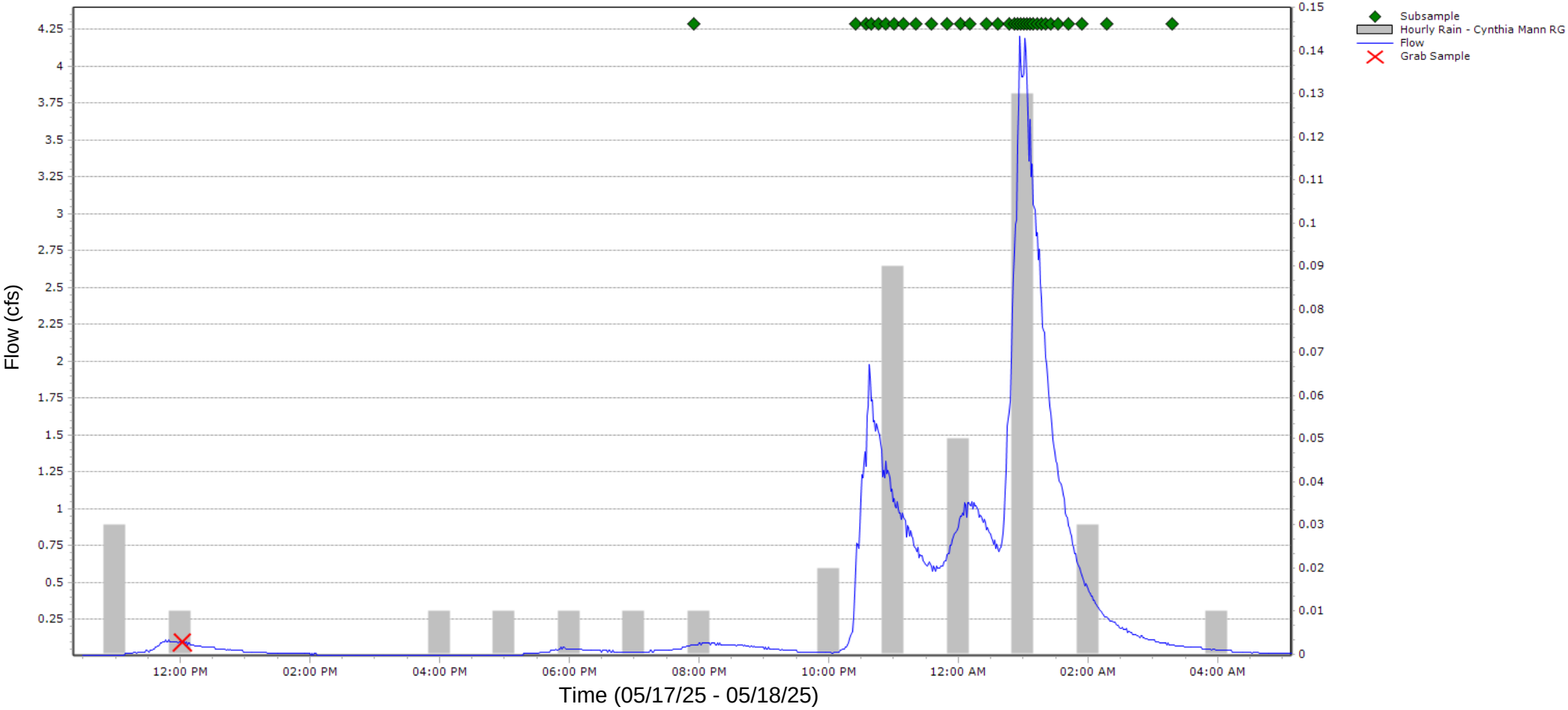
**Reviewed by:** Heather Person **Date:** 7/10/25

**Approved by** Monica Rowe **Date** 7/10/25

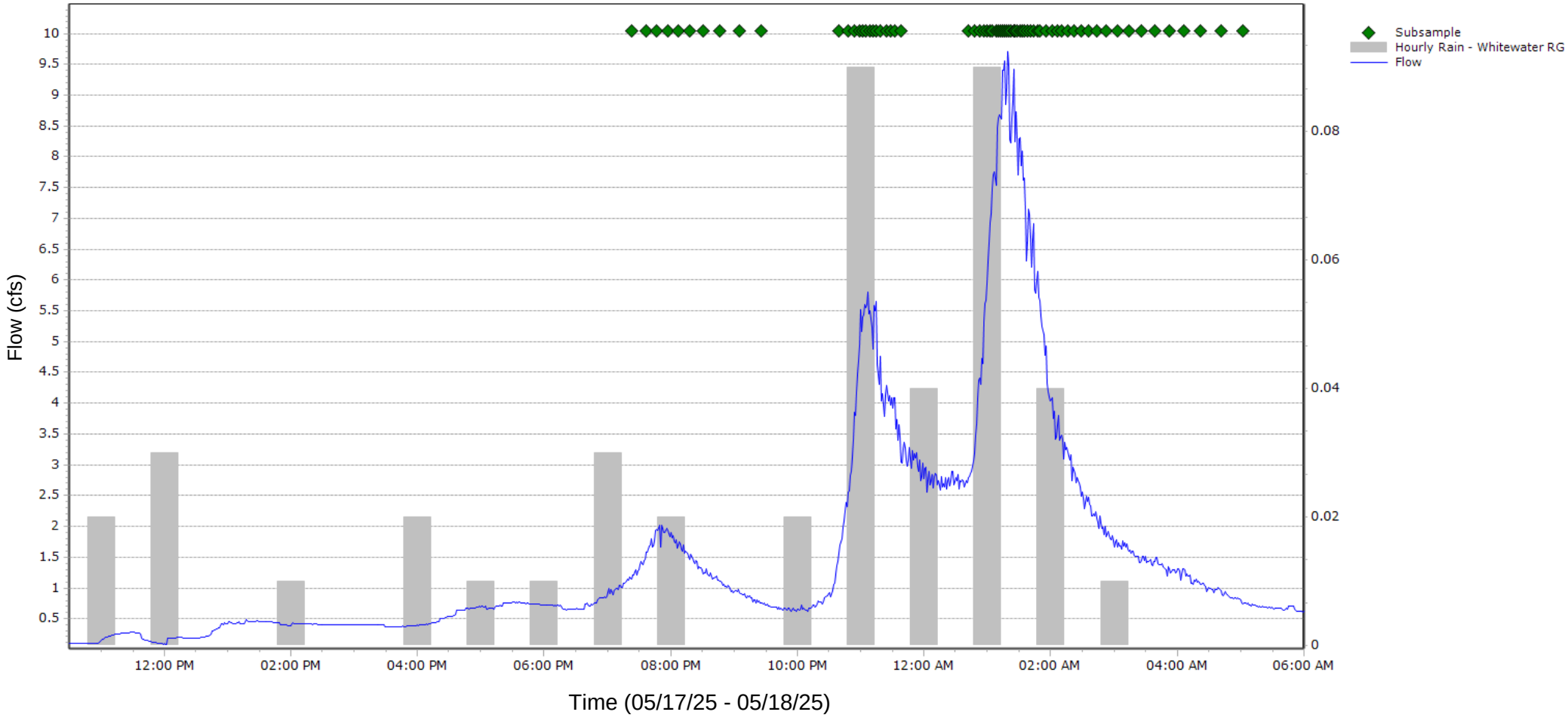
Updated 220718 TL

# Attachment B: Storm Event Hydrographs

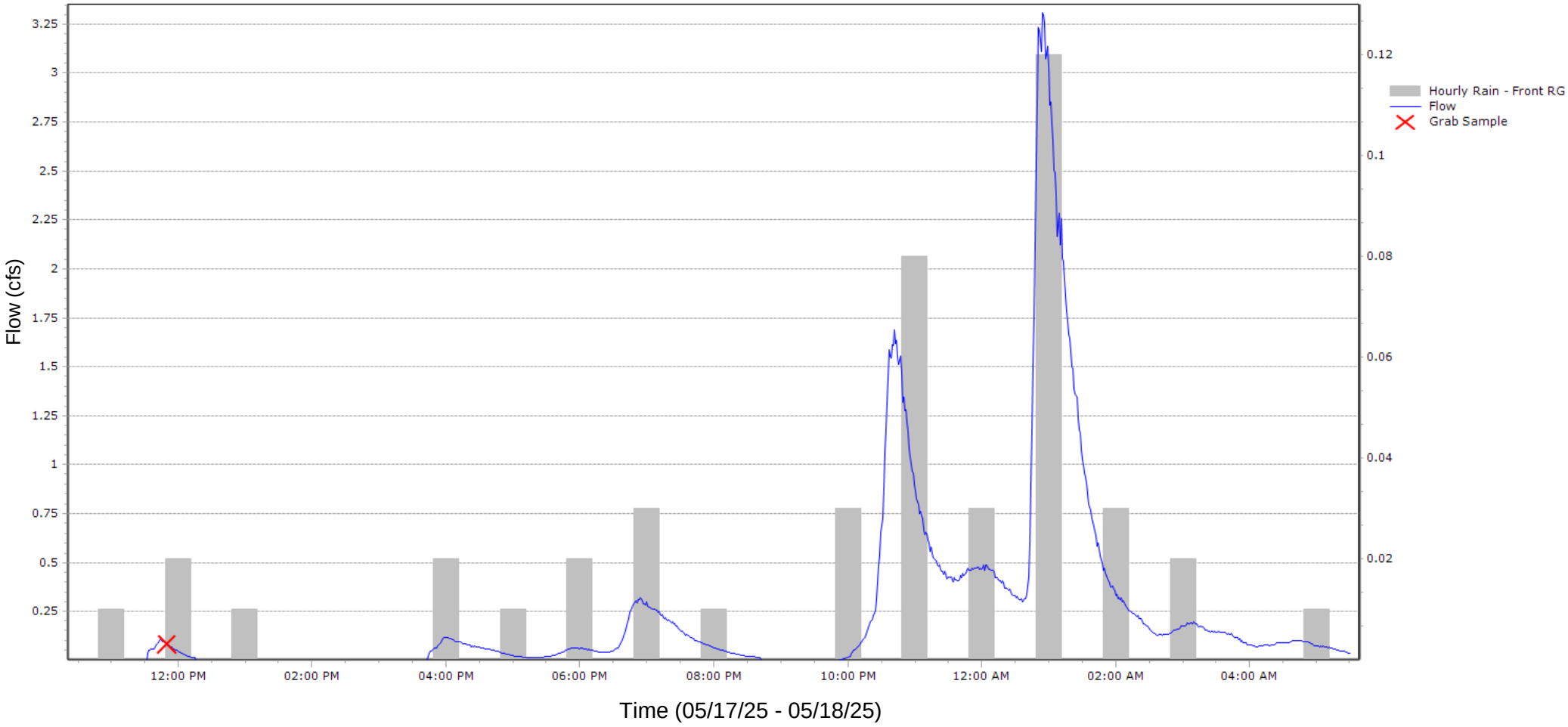
# Lucky Hydrograph



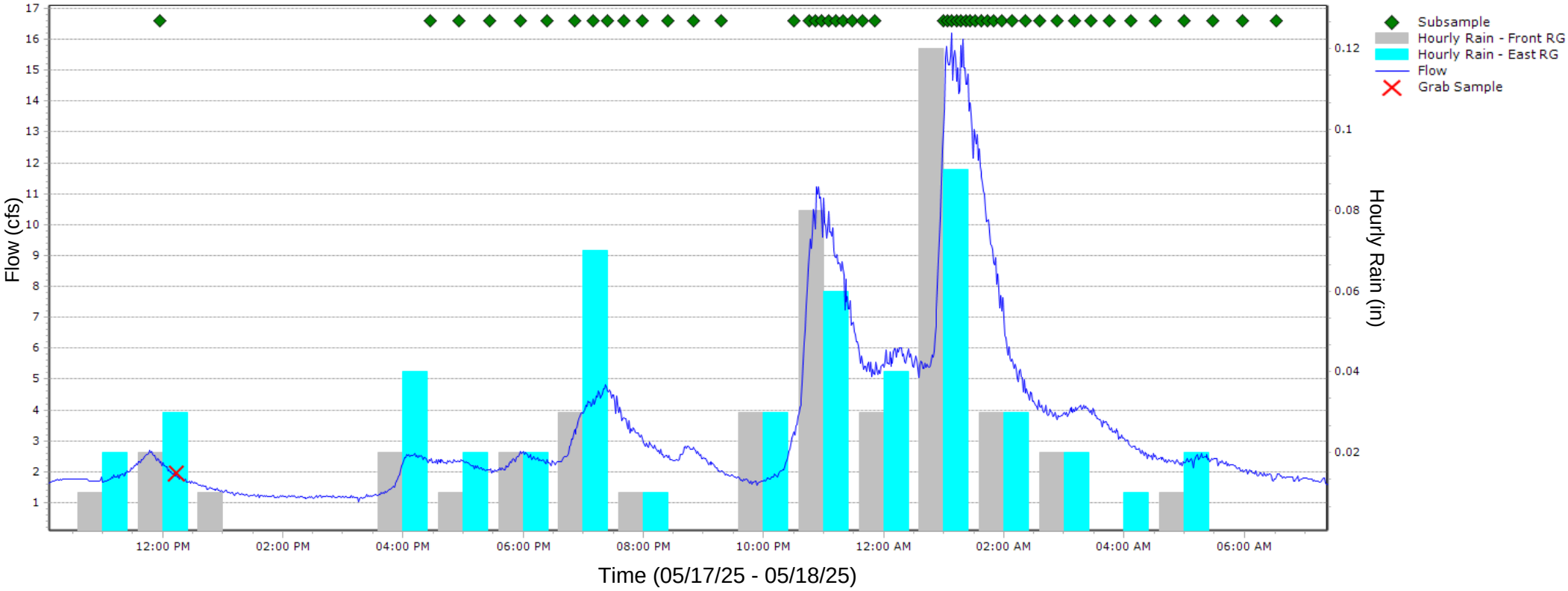
# Whitewater Hydrograph

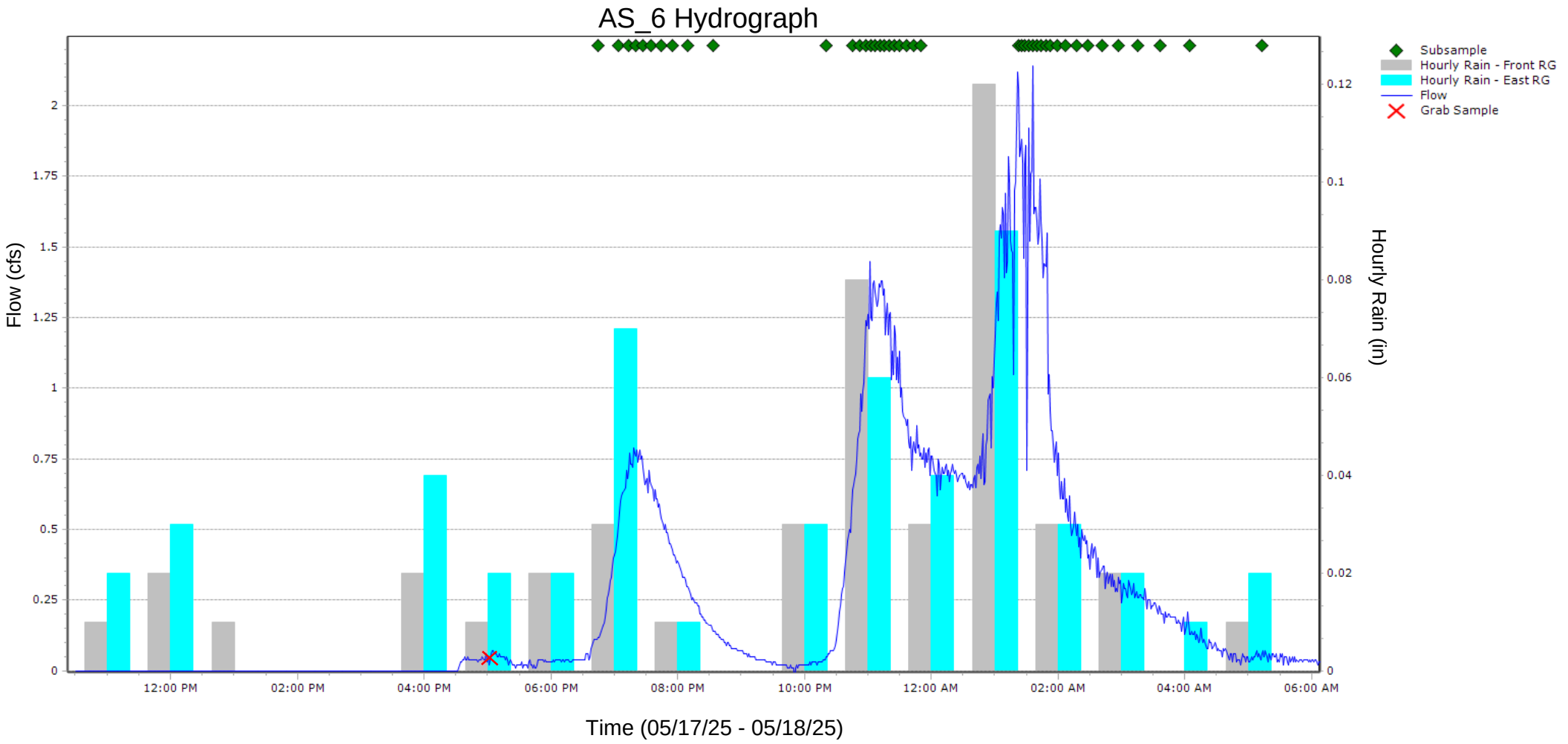


# Main Alternative Hydrograph



# Americana Hydrograph




AS_6 Hydrograph
Subsample
Hourly Rain - Front RG
Hourly Rain - East RG
Flow
Grab Sample
Flow (cfs)
Hourly Rain (in)
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
0.02
0.04
0.06
0.08
0.1
0.12
12:00 PM
02:00 PM
04:00 PM
06:00 PM
08:00 PM
10:00 PM
12:00 AM
02:00 AM
04:00 AM
06:00 AM
Time (05/17/25 - 05/18/25)

# Attachment C: Field Forms

# Grab Sample Data Form

**STATION:** Lucky

**Personnel:** ST IRR **Date/Time On-Site:** 05/17/25 1150

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 12:23 | 2.47 | ~~0.32~~ 27.90 gpm | 0.32 | 13.0 | — |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250517-03 -WG | 05/17/25 | 1202 | ☒ |
| Field Duplicate *E.Coli* | 250517-03 -101 | 05/17/25 | 1205 | ☒ |
| Field Blank *E.Coli* | 250517-03 -001 | 05/17/25 | 1207 | ☒ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP12 | 12:20 | 13.97 | 4.33 | 7.36 | 285.77 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | 0 |

**Comments:** Alternate site QC samples discarded due to successful collection of samples at primary QC site (Main).

**Date/Time Off-Site:** 5/17/25 12:24

# Grab Sample Data Form

**STATION:** Main Alt

**Personnel:** KJ, TA **Date/Time On-Site:** 5/17/25 1143

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 1155 | 1.836 | 0.07 | 0.61 | 12.59 | — |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250517-12 -WG | 5/17/25 | 1150 | ☒ |
| Field Duplicate *E.Coli* | 250517-12 -101 | 5/17/25 | 1152 | ☒ |
| Field Blank *E.Coli* | 250517-12 -001 | 5/17/25 | 1148 | ☒ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| ~~H73246~~ ST MP14 | 1154 | 17.60 | 7.30 | 6.48 | 194.17 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

**Date/Time Off-Site:** 5/17/25 1200

# Grab Sample Data Form

**STATION:** Americana

**Personnel:** KS, TA **Date/Time On-Site:** 5/17/25 1210

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 1210 | 6.44 | 2.00 (TA) | 1.978 | 12.13 | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250517-14-~~1214~~ (TA) -WG | 5-17-25 | 1214 | ☑ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| ~~#2~~ MPH (TA) | 1217 | 15.56 | 8.39 | 6.93 | 385.45 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | 1154 5/17/25 |
| Last Subsample Date/Time | |
| # of Subsamples taken | 7 |

**Comments:**

**Date/Time Off-Site:** 5/17/25 1223

# Grab Sample Data Form

**STATION:** AS-6

**Personnel:** ST, KJ **Date/Time On-Site:** 5/17/25 16:42

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow ~~(cfs)~~ GPM | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| 16:43 | 1.45 | 17.31 | 0.44 | 12.8 | - | - |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250517-206-WG | 5/17/25 | 16:52 | ☒ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP12 | 16:55 | 16.29 | 4.81 | 6.96 | 216.39 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | 0 |

**Comments:**

# Set Up/ Shut Down Form – HACH (Lucky, AS_6)

**STATION:** Lucky

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 5/16/25 10:22

| Time | Level (in) | Flow ~~(cfs)~~ gpm | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 10:31 | 1.62" | 3.66 | ~~1.62~~ ST | 12.9 |
| | | | 0.08 | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 2.62" |
| **Deadband:** | 1 |
| **Trigger Volume:** | 3950 gal |

- ☒ Install batteries on flowmeter and sampler
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Verify all cable and tubing connections
- ☒ Check date and time on flowmeter and sampler
- ☒ Set flowmeter program and sampler program parameters
- ☒ Set logging interval to 1 minute
- ☒ Start flowmeter program and sampler program
- ☒ Verify running

**Comments:**

**Date/Time Off-Site:** 5/16/25 10:45

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** ~~5/21~~ 5/20/25 11:02

| Time | Level (in) | Flow ~~(cfs)~~ gpm | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 11:06 | 1.51" | 3.36 | 0.08 | | 12.3 |
| **Downloaded to:** | | Red USB | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| ☒ Halt program on flowmeter | ☐ Replace flowmeter battery |
| ☒ Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| ☒ Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

**Date/Time Off-Site:** 5/20/25 11:18

**STATION:** Lucky **Bottle** 1 **of** 2

**Personnel:** ST, KS **Date/Time On-Site:**

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250517-03 | -WC |
| **Approx Sample Volume (mL):** | 7250 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/17/25 1956 | Success | 13 | 5/18/25 0011 | Success |
| 2 | 2225 | | 14 | | |
| 3 | 2235 | | 15 | | |
| 4 | 2240 | | 16 | | |
| 5 | 2246 | | 17 | | |
| 6 | ~~2250~~ | 2253 | 18 | | |
| 7 | 2301 | | 19 | | |
| 8 | 2310 | | 20 | | |
| 9 | 2321 | | 21 | | |
| 10 | 2335 | | 22 | | |
| 11 | 2350 | | 23 | | |
| 12 | 5/18/25 0002 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 5/18/25 0020

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** 5/18/25 0015 |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Lucky 7 **Bottle** 2 **of** 2

**Personnel:** KJ, ST **Date/Time On-Site:** 5/18/25 1105

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250517-83 | -WC |
| **Approx Sample Volume (mL):** | 10250 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Gray | |
| **QA/QC Sample ID:** | | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0026 | Success | 13 | 5/18/25 0121 | Success |
| 2 | 0037 | | 14 | 0126 | |
| 3 | 0047 | | 15 | 0133 | |
| 4 | 0052 | | 16 | 0142 | |
| 5 | 0052 ~~0058~~ | | 17 | 0155 | |
| 6 | 0058 | | 18 | 0218 | |
| 7 | 0101 | | 19 | 0318 | |
| 8 | 0104 | | 20 | | |
| 9 | 0107 | | 21 | | |
| 10 | 0110 | | 22 | | |
| 11 | 0113 | | 23 | | |
| 12 | 0117 | | 24 | | |

**Comments:**

~~offsite~~: off site 5/18/25 1114

**If sampling is complete:**
- ☒ Power off sampler, if separate from flowmeter
- ☒ Keep flowmeter running
- ☒ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☐ Keep flowmeter running
- ☐ Install new 15L bottle; add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**STATION:** Whitewater

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 5/16/25 10:59

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 10:59 | 2.18 | 0.17 | 0.61 | - |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 5.25" |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 1093 cf |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☐ Install 15L sample bottle, with ice
- ☐ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☐ Verify all cable and tubing connections
- ☐ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time 5/16/25 ~~11:40~~ ST
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:** Enable condition set to 5.25" because previous flows from 72 hours indicate a maximum of 5.0".

**Date/Time Off-Site:** 5/16/25 11:40

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 5/20/25 12:29

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 5/19 9:08 | 3.02 | 0.34 | 0.76 | - |
| | **Downloaded to:** | Stevens laptop | | |
| | | | | |

**On-Site**

- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 5/19/25 9:04
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 5/20/25 12:32

**STATION:** Whitewater **Bottle** 1 **of** 3

**Personnel:** LS, ST **Date/Time On-Site:** 5/18/25 0835

- [x] Halt sampler program
- [x] Put lid on sample bottle; label sample bottle

| | | |
|---|---|---|
| **Sample ID:** | 250517-11 | -WC |
| **Approx Sample Volume (mL):** | 13250 ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/17/25 1924 | Success | 13 | 5/17/25 2255 | Success |
| 2 | 1938 | | 14 | 2300 | |
| 3 | 1949 | | 15 | 2303 | |
| 4 | 1958 | | 16 | 2307 | |
| 5 | 2008 | | 17 | 2310 | |
| 6 | 2020 | | 18 | 2313 | |
| 7 | 2032 | | 19 | 2317 | |
| 8 | 2048 | | 20 | 2321 | |
| 9 | 2100 | | 21 | 2325 | |
| 10 | 2128 | | 22 | 2329 | |
| 11 | 2240 | | 23 | 2334 | |
| 12 | 2244 | | 24 | 2339 | |

**Comments:**

**Date/Time Off-Site:** 5/18/25 0843

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** 5/18/25 ~~1342~~ 0842 |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 2 **of** 3

**Personnel:** KS, ST **Date/Time On-Site:** 5/18/25 0147

- [x] Halt sampler program
- [x] Put lid on sample bottle; label sample bottle

| | | |
|---|---|---|
| **Sample ID:** | 250517-11 | -WC |
| **Approx Sample Volume (mL):** | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0043 | Success | 13 | 5/18/25 0119 | No liquid detect. |
| 2 | 0049 | | 14 | 0121 | |
| 3 | 0054 | | 15 | 0123 | |
| 4 | 0058 | | 16 | 0126 | |
| 5 | 0101 | | 17 | 0128 | |
| 6 | 0104 | | 18 | 0130 | |
| 7 | 0107 | | 19 | 0132 | |
| 8 | 0109 | No liquid detect. | 20 | 0134 | |
| 9 | 0111 | | 21 | 0137 | |
| 10 | 0113 | | 22 | 0139 | |
| 11 | 0115 | | 23 | 0142 | |
| 12 | 0117 | | 24 | 0145 | |

**Comments:** Restarted program with the same bottle. Observed sampler pulling subsamples despite "No liquid detected" messages during 0145 (24) sample attempt.

**Date/Time Off-Site:** 5/18/25 0157

**If sampling is complete:**

- [ ] Power off sampler, if separate from flowmeter
- [ ] Keep flowmeter running
- [ ] Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**

- [x] Keep flowmeter running
- [x] Install new 15L bottle; add ice
- [x] Restart program from beginning

**Date/Time Restarted:** 5/18/25 0150

- [x] Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 2 **of** 3

**Personnel:** KS, ST **Date/Time On-Site:** 5/18/25 0230

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250517-11 | -WC |
| **Approx Sample Volume (mL):** | 16250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | | -103 (Time: 1200) |

| Subsample Information | | | | | |
|---|---|---|---|---|---|
| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
| 1 | 5/18/25 0151 | No more liquid | 13 | | |
| 2 | 0154 | Sample skipped | 14 | | |
| 3 | 0157 | No liquid detect | 15 | | |
| 4 | 0202 | No more liquid | 16 | | |
| 5 | 0207 | ↓ | 17 | | |
| 6 | 0212 | Success | 18 | | |
| 7 | 0217 | ↓ | 19 | | |
| 8 | 0223 | | 20 | | |
| 9 | 0230 | ↓ | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:** Sample bottle was full upon arrival.

**Date/Time Off-Site:** 5/18/25 0240

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 0236 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5”** | 400 mL | **3.0”** | 3500 mL | **5.5”** | 7250 mL | **8.0”** | 11000 mL | **10.5”** | 14750 mL |
| **1.0”** | 800 mL | **3.5”** | 4250 mL | **6.0”** | 8000 mL | **8.5”** | 11750 mL | **11.0”** | 15500 mL |
| **1.5”** | 1400 mL | **4.0”** | 5000 mL | **6.5”** | 8750 mL | **9.0”** | 12500 mL | **11.5”** | 16250 mL |
| **2.0”** | 2000 mL | **4.5”** | 5750 mL | **7.0”** | 9500 mL | **9.5”** | 13250 mL | **After 12”** | 1” = 1500 mL |
| **2.5”** | 2750 mL | **5.0”** | 6500 mL | **7.5”** | 10250 mL | **10.0”** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 3 **of** 3

**Personnel:** KS, ST **Date/Time On-Site:** 5/18/25 1046

☒ Halt sampler program

☒ Put lid on sample bottle; label sample bottle

| | | |
|---|---|---|
| **Sample ID:** | 250517 - 11 | -WC |
| **Approx Sample Volume (mL):** | 6500 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0237 | Success | 13 | | |
| 2 | 0245 | | 14 | | |
| 3 | 0255 | | 15 | | |
| 4 | 0305 | | 16 | | |
| 5 | 0316 | | 17 | | |
| 6 | 0327 | | 18 | | |
| 7 | 0340 | | 19 | | |
| 8 | 0353 | | 20 | | |
| 9 | 0408 | | 21 | | |
| 10 | 0424 | | 22 | | |
| 11 | 0442 | | 23 | | |
| 12 | 0503 | | 24 | | |

**Comments:** During troubleshooting, after the storm event, it was discovered the pump tubing on the whitewater sampler was misaligned on the liquid sensor resulting in "No More liquid" subsample messages during collection of the second composite bottle. Since all subsamples from the first and third bottles resulted in "success", the tubing misalignment likely occured when the second bottle was installed. Based on the volume of stormwater collected into the second bottle, the "No more liquid" may have resulted in inaccurate sample volumes, however, stormwater subsamples were still collected into the second bottle.

**Date/Time Off-Site:** 5/18/25 1051

**If sampling is complete:**

- ☒ Power off sampler, if separate from flowmeter
- ☒ Keep flowmeter running
- ☒ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**

- ☐ Keep flowmeter running
- ☐ Install new 15L bottle; add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**STATION:** Main Alt

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 5/16/25 11:50

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:56 | 0.252 | 0.00 | 0.00 | 12.7 |
| | | | | |
| | | | | |
| **Enable Condition:** | | — | | |
| **Hysteresis:** | | — | | |
| **Flow Pulse Interval:** | | — | | |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☐ Perform decon. cycle
- ☐ Install 15L sample bottle, with ice
- ☐ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☐ Set sampler program parameters
- ☐ Check date/time on sampler
- ☐ Verify all cable and tubing connections
- ☐ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☐ Direct or Remote; Date/time 5/16/25 11:52
- ☐ Retrieve data and review recent flow history
- ☐ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☐ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:** Composites completed for this water year. Grab only!

**Date/Time Off-Site:** 5/16/25 11:58

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 5/19/25 14:03

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1405 | 0.300 | 0.00 | 0.08 | - |
| **Downloaded to:** | | Stevens USB | | |
| | | | | |

**On-Site**

- ☐ Replace flowmeter battery
- ☐ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 5/19 14:05
- ☒ Retrieve data
- ☐ Change Wireless Power Control to Dry Weather
- ☐ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 5/19/25 14:07

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**STATION:** Americana

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 5/16/25 1210

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1210 | 5.09 | | | 12.34 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | ~~6"~~ 7" |
| **Hysteresis:** | 1.00 |
| **Flow Pulse Interval:** | 4036 cf |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time laptop 5/16/25 1215
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 5/16/25 1240

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 5/19/25 1431

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 8:57 | 5.500 | 1.297 | 1.578 | 11.98 |
| **Downloaded to:** | | Stevens laptop | | |
| | | | | |

**On-Site**

- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 5/19/25 8:57
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 5/19/25 1435

**STATION:** Americana **Bottle** 1 **of** 3

**Personnel:** ST, KJ **Date/Time On-Site:** 5/18/25 0055

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250517-14 | -WC |
| **Approx Sample Volume (mL):** | 14000ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/17/25 1154 | Success | 13 | 5/17/25 2048 | Success |
| 2 | 1625 | | 14 | 2116 | |
| 3 | 1654 | | 15 | 2228 | |
| 4 | 1724 | | 16 | 2243 | |
| 5 | 1755 | | 17 | 2250 | |
| 6 | 1822 | | 18 | 2256 | |
| 7 | 1849 | | 19 | 2303 | |
| 8 | 1907 | | 20 | 2310 | |
| 9 | 1922 | | 21 | 2317 | |
| 10 | 1938 | | 22 | 2326 | |
| 11 | 1957 | | 23 | 2336 | |
| 12 | 2022 | | 24 | 2349 | |

**Comments:**

**Date/Time Off-Site:** 5/18/25

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** 5/18/25 0059 |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 2 **of** 3

**Personnel:** KJ, ST **Date/Time On-Site:** 5/18/25 0203

- [x] Halt sampler program
- [x] Put lid on sample bottle; label sample bottle

| | | |
|---|---|---|
| **Sample ID:** | 250517-14 | -WC |
| **Approx Sample Volume (mL):** | 11750ml | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0058 | Success | 13 | 5/18/25 0206 | Success |
| 2 | 0102 | | 14 | 0249 | |
| 3 | 0106 | | 15 | 0234 | |
| 4 | 0111 | | 16 | 0252 | |
| 5 | 0115 | | 17 | 0308 | |
| 6 | 0120 | | 18 | 0325 | |
| 7 | 0124 | | 19 | 0344 | |
| 8 | 0129 | | 20 | | |
| 9 | 0135 | | 21 | | |
| 10 | 0141 | | 22 | | |
| 11 | 0148 | | 23 | | |
| 12 | 0156 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 5/18/25 0400

**If sampling is complete:**
- [ ] Power off sampler, if separate from flowmeter
- [ ] Keep flowmeter running
- [ ] Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- [x] Keep flowmeter running
- [x] Install new 15L bottle; add ice
- [x] Restart program from beginning

**Date/Time Restarted:** 5/18/25 0356

- [x] Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 3 **of** 3

**Personnel:** KS, ST **Date/Time On-Site:** 5/18/25 1012

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250517-14 -WC |
| **Approx Sample Volume (mL):** | 2750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0404 | Success | 13 | | |
| 2 | 0429 | | 14 | | |
| 3 | 0458 | | 15 | | |
| 4 | 0528 | | 16 | | |
| 5 | 0556 | | 17 | | |
| 6 | 0630 | | 18 | | |
| 7 | | | 19 | | |
| 8 | | | 20 | | |
| 9 | | | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 5/18/25 1020

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – HACH (Lucky, [redacted] AS_6)

**TATION:** AS-6

## SET UP

**Personnel:** KJ, ST

**Date/Time On-Site:** 5/16/25 1255

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1300 | -0.04 | 0.00 | 0.00 | 12.7 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 1.0" |
| **Deadband:** | 1.0 |
| **Trigger Volume:** | 2252 gal |

- ☒ Install batteries on flowmeter and sampler
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Verify all cable and tubing connections
- ☒ Check date and time on flowmeter and sampler
- ☒ Set flowmeter program and sampler program parameters
- ☒ Set logging interval to 1 minute
- ☒ Start flowmeter program and sampler program
- ☒ Verify running

**Comments:**

offsite: 5/16/25 1308

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 5/19/25 15:13

| Time | Level (in) | Flow ~~(cfs)~~ GPM | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 15:13 | -0.06 | 0.00 | 0.00 | - | 12.4 |
| **Downloaded to:** | | Stevens USB | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| ☒ Halt program on flowmeter | ☐ Replace flowmeter battery |
| ☒ Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| ☐ Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

# Composite Sample Collection

**STATION:** AS-10 **Bottle** 1 **of** 2

**Personnel:** KS, ST **Date/Time On-Site:** 5/17/25 ~~20~~ 2234

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250517-206 | -WC |
| **Approx Sample Volume (mL):** | 13250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/17/25 1844 | Success | 13 | 5/17/25 2352 | Success |
| 2 | 1904 | | 14 | 2258 | |
| 3 | 1913 | | 15 | 2303 | |
| 4 | 1920 | | 16 | 2307 | |
| 5 | 1927 | | 17 | 2311 | |
| 6 | 1935 | | 18 | 2315 | |
| 7 | 1944 | | 19 | 2320 | |
| 8 | 1955 | | 20 | 2325 | |
| 9 | 2009 | | 21 | 2330 | |
| 10 | 2033 | | 22 | 2336 | |
| 11 | 2220 | | 23 | 2343 | |
| 12 | 2345 | | 24 | 2350 | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 5/18/25 0114 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS-6 **Bottle** 2 **of** 2

**Personnel:** KJ, SS **Date/Time On-Site:** 5/18/25 0219

- [x] Halt sampler program
- [x] Put lid on sample bottle; label sample bottle

| | | |
|---|---|---|
| **Sample ID:** | 250517-206 | -WC |
| **Approx Sample Volume (mL):** | 11000 mL | |
| **Clarity (ex. Clear, Gray, Tan, Brown, Black):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 5/18/25 0122 | Success | 13 | 5/18/25 0228 | Success |
| 2 | 0125 | ↓ | 14 | 0241 | ↓ |
| 3 | 0128 | | 15 | 0257 | |
| 4 | 0132 | | 16 | 0315 | |
| 5 | 0136 | | 17 | 0336 | |
| 6 | 0140 | | 18 | 0404 | |
| 7 | 0144 | | 19 | 0513 | |
| 8 | 0148 | | 20 | | |
| 9 | 0152 | | 21 | | |
| 10 | 0159 | | 22 | | |
| 11 | 0207 | | 23 | | |
| 12 | 0247 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** ~~5/18/25~~ 5/18/25 1032

**If sampling is complete:**
- [x] Power off sampler, if separate from flowmeter
- [x] Keep flowmeter running
- [x] Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☐ Keep flowmeter running
- ☐ Install new 15L bottle; add ice
- ☐ Restart program from beginning

**Date/Time Restarted:** _____

- ☐ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | ~~**8.0"**~~ | ~~11000 mL~~ | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00401-01 | ACST1B | 250517-03-WG | Water | | 5/17/25 12:02 | 5/17/25 13:59 |
| AC00401-02 | ACST1B | 250517-12-WG | Water | | 5/17/25 11:50 | 5/17/25 13:59 |
| AC00401-03 | ACST1B | 250517-12-101 | Water | | 5/17/25 12:00 | 5/17/25 13:59 |
| AC00401-04 | ACST1B | 250517-12-001 | Water | | 5/17/25 12:00 | 5/17/25 13:59 |
| AC00401-05 | ACST1B | 250517-14-WG | Water | | 5/17/25 12:14 | 5/17/25 13:59 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-03-WG |
| Date/Time Collected: | 05/17/2025 12:02 | | |
| Lab Number: | AC00401-01 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | 131.4 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 05/17/25 15:42 | 5/18/25 15:49 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 14:28 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-12-WG |
| Date/Time Collected: | 05/17/2025 11:50 | | |
| Lab Number: | AC00401-02 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | 5210 | MPN/100 mL | 100 | 1.0 | IDEXX - Colilert | 05/17/25 15:42 | 5/18/25 15:49 | ASE | D |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 14:28 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-12-101 |
| Date/Time Collected: | 05/17/2025 12:00 | | |
| Lab Number: | AC00401-03 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | 6090 | MPN/100 mL | 100 | 1.0 | IDEXX - Colilert | 05/17/25 15:42 | 5/18/25 15:49 | ASE | D |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 14:28 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-12-001 |
| Date/Time Collected: | 05/17/2025 12:00 | | |
| Lab Number: | AC00401-04 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | <1.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 05/17/25 15:42 | 5/18/25 15:49 | ASE | U |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 14:28 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-14-WG |
| Date/Time Collected: | 05/17/2025 12:14 | | |
| Lab Number: | AC00401-05 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | 248.9 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 05/17/25 15:42 | 5/18/25 15:49 | ASE | |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 14:28 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B251592** | | | | | | | | | |
| **Blank (B251592-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 05/18/2025 | ASE | |
| **LCS (B251592-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 05/18/2025 | ASE | |
| **Duplicate (B251592-DUP1)** | Source ID: AC00401-05 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 05/18/2025 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Jolliffe
Tim Anderson
Steven Turner Ryan Rowe

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | Analysis Methods: E. Coli - IDEXX Colilert | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1C00401-01 | 5/17/25 | | 1202 | | 250517-03-WG | ST | X | X | | X | 1 |
| -02 | | | 1150 | | 250517-12-WG | KJ | X | X | | X | 1 |
| -03 | | ~~1200~~ | 1200 | | 250517-12-101 | KJ | X | X | | X | 1 |
| -04 | | ~~1200~~ | 1200 | | 250517-12-001 | KJ | X | X | | X | 1 |
| -05 | | | 1214 | | 250517-14-WG | KJ | X | X | | X | 1 |

| Relinquished by (sign) | Date & Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 5/17/25 1354 | 5.17.25 1359 | |

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00402-01 | ACST1B | 250517-206-WG | Water | | 5/17/25 16:52 | 5/17/25 17:28 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250517-206-WG |
| Date/Time Collected: | 05/17/2025 16:52 | | |
| Lab Number: | AC00402-01 | Sample Collector: | K.J |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B251592 | 7270 | MPN/100 mL | 100 | 1.0 | IDEXX - Colilert | 05/17/25 17:47 | 5/18/25 17:47 | ASE | D |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B251593 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 05/17/25 | 5/17/25 17:33 | MCB | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 05/28/2025 09:35

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B251592** | | | | | | | | | |
| **Blank (B251592-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 05/18/2025 | ASE | |
| **LCS (B251592-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 05/18/2025 | ASE | |
| **Duplicate (B251592-DUP1)** | Source ID: AC00401-05 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 05/18/2025 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 05/28/2025 09:35

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| NR | No result for this parameter. |

## Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristin Jolliffe
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | BOD5 - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00402-01 | 5/17/25 | | 1652 | | 250517-2D6-WG | KJ | X | X | | | | | | | | | | | | X | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristin Jolliffe | ~~5/17/25~~ 1727 5/17/25 MEC | 05/17/25 1728 | |



AC00402

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00403-01 | ACST1C | 250517-03-WC | Water | | 5/18/25 3:18 | 5/18/25 12:36 |
| | ***Comments:*** | Temperature at receipt, 2 containers: 4.9 and 5.5 degrees C | | | | |
| AC00403-02 | ACST1C | 250517-11-WC | Water | | 5/18/25 5:03 | 5/18/25 12:36 |
| | ***Comments:*** | Temperature at receipt, 3 containers: 2.6. 4.9, and 1.3 degrees C | | | | |
| AC00403-03 | ACST1C | 250517-14-WC | Water | | 5/18/25 6:30 | 5/18/25 12:36 |
| | ***Comments:*** | Temperature at receipt, 3 containers: 3.8, 3.6, and 4.8 degrees C | | | | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250517-03-WC |
| Date/Time Collected: | 05/17/2025 19:56 - 05/18/2025 03:18 | | |
| Lab Number: | AC00403-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B251700 | 0.500 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 05/27/25 | 5/27/25 12:02 | ALN | |
| BOD5 | B251598 | 37.8 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 05/18/25 | 5/23/25 15:57 | MCB | |
| Chloride | B251627 | 1.67 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 05/20/25 | 5/20/25 16:44 | RHC | |
| COD | B251605 | 188 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 05/19/25 | 5/19/25 9:44 | RCJ | |
| Nitrate-Nitrite, as N | B251656 | 0.225 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 05/21/25 | 5/21/25 13:00 | JAL | |
| TKN | B251621 | 3.80 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 05/19/25 | 5/20/25 10:42 | JAL | |
| Total Dissolved Solids | B251647 | 50.7 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 05/21/25 | 5/23/25 7:29 | NTS | |
| Total Suspended Solids | B251612 | 149 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 05/19/25 | 5/19/25 9:55 | NTS | |
| Turbidity | B251603 | 58.0 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 8:51 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B251618 | 0.272 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 11:32 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B251763 | 0.0138 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 06/03/25 | 6/3/25 12:45 | SAS | |
| Arsenic | B251685 | 2.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 05/24/25 | 5/30/25 17:17 | DMW | |
| Cadmium | B251685 | 0.12 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:17 | DMW | |
| Calcium | B251722 | 6.47 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 05/29/25 | 5/30/25 9:15 | SMC | |
| Lead | B251685 | 3.1 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:17 | DMW | |
| Magnesium | B251722 | 1010 | ug/L | 40.0 | 40.0 | EPA 200.7 | 05/29/25 | 5/30/25 9:15 | SMC | |
| Phosphorus as P | B251722 | 0.558 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 05/29/25 | 5/30/25 9:15 | SMC | |
| Hardness | B251722 | 20.3 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 05/29/25 | 5/30/25 9:15 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B251682 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/23/25 | 5/23/25 16:20 | DMW | U |
| Copper | B251682 | 5.4 | ug/L | 0.14 | 0.14 | EPA 200.8 | 05/23/25 | 5/23/25 16:20 | DMW | |
| Lead | B251682 | 0.086 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 05/23/25 | 5/23/25 16:20 | DMW | |
| Zinc | B251682 | 32.9 | ug/L | 0.50 | 0.50 | EPA 200.8 | 05/23/25 | 5/23/25 16:20 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250517-11-WC |
| Date/Time Collected: | 05/17/2025 19:24 - 05/18/2025 05:03 | | |
| Lab Number: | AC00403-02 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B251700 | 0.242 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 05/27/25 | 5/27/25 11:59 | ALN | |
| BOD5 | B251598 | 31.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 05/18/25 | 5/23/25 15:52 | MCB | |
| Chloride | B251627 | 8.01 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 05/20/25 | 5/20/25 18:30 | RHC | |
| COD | B251605 | 135 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 05/19/25 | 5/19/25 9:44 | RCJ | |
| Nitrate-Nitrite, as N | B251656 | 0.237 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 05/21/25 | 5/21/25 13:01 | JAL | |
| TKN | B251621 | 2.40 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 05/19/25 | 5/20/25 10:43 | JAL | |
| Total Dissolved Solids | B251647 | 80.8 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 05/21/25 | 5/23/25 7:30 | NTS | |
| Total Suspended Solids | B251612 | 97.7 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 05/19/25 | 5/19/25 9:56 | NTS | |
| Turbidity | B251603 | 48.5 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 9:08 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B251618 | 0.225 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 11:33 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B251763 | 0.0146 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 06/03/25 | 6/3/25 12:49 | SAS | |
| Arsenic | B251685 | 2.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 05/24/25 | 5/30/25 17:22 | DMW | |
| Cadmium | B251685 | 0.078 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:22 | DMW | |
| Calcium | B251722 | 9.79 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 05/29/25 | 5/30/25 9:18 | SMC | |
| Lead | B251685 | 5.1 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:22 | DMW | |
| Magnesium | B251722 | 1800 | ug/L | 40.0 | 40.0 | EPA 200.7 | 05/29/25 | 5/30/25 9:18 | SMC | |
| Phosphorus as P | B251722 | 0.435 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 05/29/25 | 5/30/25 9:18 | SMC | |
| Hardness | B251722 | 31.9 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 05/29/25 | 5/30/25 9:18 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B251682 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/23/25 | 5/23/25 16:25 | DMW | U |
| Copper | B251682 | 4.3 | ug/L | 0.14 | 0.14 | EPA 200.8 | 05/23/25 | 5/23/25 16:25 | DMW | |
| Lead | B251682 | 0.19 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 05/23/25 | 5/23/25 16:25 | DMW | |
| Zinc | B251682 | 20.8 | ug/L | 0.50 | 0.50 | EPA 200.8 | 05/23/25 | 5/23/25 16:25 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250517-14-WC |
| Date/Time Collected: | 05/17/2025 11:54 - 05/18/2025 06:30 | | |
| Lab Number: | AC00403-03 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B251700 | 0.323 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 05/27/25 | 5/27/25 11:55 | ALN | |
| BOD5 | B251598 | 25.4 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 05/18/25 | 5/23/25 15:44 | MCB | |
| Chloride | B251627 | 17.2 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 05/20/25 | 5/20/25 18:57 | RHC | |
| COD | B251605 | 132 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 05/19/25 | 5/19/25 9:56 | RCJ | |
| Nitrate-Nitrite, as N | B251656 | 0.429 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 05/21/25 | 5/21/25 13:03 | JAL | |
| TKN | B251621 | 1.64 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 05/19/25 | 5/20/25 10:44 | JAL | |
| Total Dissolved Solids | B251647 | 104 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 05/21/25 | 5/23/25 7:31 | NTS | |
| Total Suspended Solids | B251612 | 74.8 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 05/19/25 | 5/19/25 9:56 | NTS | |
| Turbidity | B251603 | 38.9 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 9:22 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B251618 | 0.163 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 11:35 | JAL | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B251763 | <0.0100 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 06/03/25 | 6/3/25 12:59 | SAS | U |
| Arsenic | B251685 | 3.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 05/24/25 | 5/30/25 17:40 | DMW | |
| Cadmium | B251685 | 0.070 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:40 | DMW | |
| Calcium | B251722 | 16.6 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 05/29/25 | 5/30/25 9:35 | SMC | |
| Lead | B251685 | 4.1 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:40 | DMW | |
| Magnesium | B251722 | 3020 | ug/L | 40.0 | 40.0 | EPA 200.7 | 05/29/25 | 5/30/25 9:35 | SMC | |
| Phosphorus as P | B251722 | 0.320 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 05/29/25 | 5/30/25 9:35 | SMC | |
| Hardness | B251722 | 53.9 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 05/29/25 | 5/30/25 9:35 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B251682 | 0.012 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/23/25 | 5/23/25 16:29 | DMW | |
| Copper | B251682 | 5.0 | ug/L | 0.14 | 0.14 | EPA 200.8 | 05/23/25 | 5/23/25 16:29 | DMW | |
| Lead | B251682 | 0.10 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 05/23/25 | 5/23/25 16:29 | DMW | |
| Zinc | B251682 | 26.8 | ug/L | 0.50 | 0.50 | EPA 200.8 | 05/23/25 | 5/23/25 16:29 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B251598** | | | | | | | | | |
| **Blank (B251598-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 05/23/2025 | MCB | U |
| **LCS (B251598-BS1)** | | | | | | | | | |
| BOD5 | | | 102 | 84.6-115.4 | | | 05/23/2025 | MCB | |
| **LCS (B251598-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 05/23/2025 | MCB | |
| **Duplicate (B251598-DUP1)** | Source ID: BB04755-01 | | | | | | | | |
| BOD5 | | | | | 0.925 | 30 | 05/23/2025 | MCB | D |
| **Batch: B251603** | | | | | | | | | |
| **Blank (B251603-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 05/19/2025 | ASE | U |
| **LCS (B251603-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 05/19/2025 | ASE | |
| **Duplicate (B251603-DUP1)** | Source ID: AC00403-03 | | | | | | | | |
| Turbidity | | | | | 2.04 | 25 | 05/19/2025 | ASE | D |
| **Batch: B251605** | | | | | | | | | |
| **Blank (B251605-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 05/19/2025 | RCJ | U |
| **LCS (B251605-BS1)** | | | | | | | | | |
| COD | | | 99.7 | 90-110 | | | 05/19/2025 | RCJ | |
| **Duplicate (B251605-DUP1)** | Source ID: AC00403-01 | | | | | | | | |
| COD | | | | | 3.24 | 10 | 05/19/2025 | RCJ | |
| **Batch: B251612** | | | | | | | | | |
| **Blank (B251612-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 05/19/2025 | NTS | U |
| **LCS (B251612-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 99.6 | 90-110 | | | 05/19/2025 | NTS | |
| **Duplicate (B251612-DUP1)** | Source ID: LS02351-02 | | | | | | | | |
| Total Suspended Solids | | | | | 2.02 | 20 | 05/19/2025 | NTS | |
| **Duplicate (B251612-DUP2)** | Source ID: BB04762-01 | | | | | | | | |
| Total Suspended Solids | | | | | 3.96 | 20 | 05/19/2025 | NTS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251621** | | | | | | | | | |
| **Blank (B251621-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 05/20/2025 | JAL | U |
| **Blank (B251621-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 05/20/2025 | JAL | U |
| **LCS (B251621-BS1)** | | | | | | | | | |
| TKN | | | 101 | 80-120 | | | 05/20/2025 | JAL | |
| **LCS (B251621-BS2)** | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 05/20/2025 | JAL | |
| **Duplicate (B251621-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | | | 1.97 | 20 | 05/20/2025 | JAL | |
| **Duplicate (B251621-DUP2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | | | 1.33 | 20 | 05/20/2025 | JAL | D |
| **Duplicate (B251621-DUP3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | | | 1.18 | 20 | 05/20/2025 | JAL | D |
| **Matrix Spike (B251621-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 05/20/2025 | JAL | |
| **Matrix Spike (B251621-MS2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | 105 | 80-120 | | | 05/20/2025 | JAL | D |
| **Matrix Spike (B251621-MS3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | 113 | 80-120 | | | 05/20/2025 | JAL | D |
| **Matrix Spike Dup (B251621-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.165 | 20 | 05/20/2025 | JAL | |
| **Matrix Spike Dup (B251621-MSD2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.619 | 20 | 05/20/2025 | JAL | D |
| **Matrix Spike Dup (B251621-MSD3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | 112 | 80-120 | 0.577 | 20 | 05/20/2025 | JAL | D |
| **Batch: B251627** | | | | | | | | | |
| **Blank (B251627-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 05/20/2025 | RHC | U |
| **Blank (B251627-BLK2)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 05/21/2025 | RHC | U |
| **LCS (B251627-BS1)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/20/2025 | RHC | |
| **LCS (B251627-BS2)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/21/2025 | RHC | |
| **Duplicate (B251627-DUP1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | | | 0.174 | 10 | 05/20/2025 | RHC | |
| **Duplicate (B251627-DUP2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | | | 1.20 | 10 | 05/21/2025 | RHC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251627 (Continued)** | | | | | | | | | |
| **Duplicate (B251627-DUP3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | | | 0.0909 | 10 | 05/21/2025 | RHC | |
| **Duplicate (B251627-DUP4)** Source ID: TM00476-02RE1 | | | | | | | | | |
| Chloride | | | | | 0.757 | 10 | 05/21/2025 | RHC | D |
| **Matrix Spike (B251627-MS1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/20/2025 | RHC | |
| **Matrix Spike (B251627-MS2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | 104 | 90-110 | | | 05/21/2025 | RHC | |
| **Matrix Spike (B251627-MS3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/21/2025 | RHC | |
| **Matrix Spike (B251627-MS4)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | | | 05/21/2025 | RHC | D |
| **Matrix Spike Dup (B251627-MSD1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | 0.504 | 10 | 05/20/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | 2.35 | 10 | 05/21/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 104 | 90-110 | 1.12 | 10 | 05/21/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD4)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | 0.400 | 10 | 05/21/2025 | RHC | D |
| **Batch: B251647** | | | | | | | | | |
| **Blank (B251647-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 05/22/2025 | NTS | U |
| **LCS (B251647-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 97.0 | 90-110 | | | 05/22/2025 | NTS | |
| **Duplicate (B251647-DUP1)** Source ID: EN00065-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 1.15 | 10 | 05/22/2025 | NTS | |
| **Duplicate (B251647-DUP2)** Source ID: TM00474-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 3.73 | 10 | 05/22/2025 | NTS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251656** | | | | | | | | | |
| **Blank (B251656-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 05/21/2025 | JAL | U |
| **Blank (B251656-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 05/21/2025 | JAL | U |
| **LCS (B251656-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 98.2 | 90-110 | | | 05/21/2025 | JAL | |
| **LCS (B251656-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.8 | 90-110 | | | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.227 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | NR | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.563 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 3.58E-3 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.159 | 10 | 05/21/2025 | JAL | D |
| **Matrix Spike (B251656-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.6 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 91.2 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 92.4 | 90-110 | | | 05/21/2025 | JAL | D |
| **Matrix Spike Dup (B251656-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.0 | 90-110 | 0.0605 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.5 | 90-110 | 0.156 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 90.1 | 90-110 | 0.151 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.3 | 90-110 | 0.115 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.0 | 90-110 | 0.276 | 10 | 05/21/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251700** | | | | | | | | | |
| **Blank (B251700-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 05/27/2025 | ALN | U |
| **LCS (B251700-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 101 | 90-110 | | | 05/27/2025 | ALN | |
| **Duplicate (B251700-DUP2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | | | 3.80 | 20 | 05/27/2025 | ALN | D |
| **Matrix Spike (B251700-MS2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | 93.7 | 84-115 | | | 05/27/2025 | ALN | D |
| **Matrix Spike Dup (B251700-MSD2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | 94.5 | 84-115 | 0.815 | 20 | 05/27/2025 | ALN | D |
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B251618** | | | | | | | | | |
| **Blank (B251618-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 05/19/2025 | JAL | U |
| **LCS (B251618-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 99.8 | 90-110 | | | 05/19/2025 | JAL | |
| **Duplicate (B251618-DUP1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.434 | 10 | 05/19/2025 | JAL | |
| **Duplicate (B251618-DUP2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0285 | 10 | 05/19/2025 | JAL | D |
| **Matrix Spike (B251618-MS1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | 105 | 90-110 | | | 05/19/2025 | JAL | |
| **Matrix Spike (B251618-MS2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | 102 | 90-110 | | | 05/19/2025 | JAL | D |
| **Matrix Spike Dup (B251618-MSD1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | 104 | 90-110 | 0.244 | 10 | 05/19/2025 | JAL | |
| **Matrix Spike Dup (B251618-MSD2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | 103 | 90-110 | 0.381 | 10 | 05/19/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B251685** | | | | | | | | | |
| **Blank (B251685-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 05/30/2025 | DMW | U |
| Cadmium | <0.010 | ug/L | | | | | 05/30/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 05/30/2025 | DMW | U |
| **LCS (B251685-BS1)** | | | | | | | | | |
| Arsenic | | | 98.4 | 85-115 | | | 05/30/2025 | DMW | |
| Cadmium | | | 99.2 | 85-115 | | | 05/30/2025 | DMW | |
| Lead | | | 99.7 | 85-115 | | | 05/30/2025 | DMW | |
| **Duplicate (B251685-DUP1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | | | 1.86 | 20 | 05/30/2025 | DMW | |
| Cadmium | | | | | 1.98 | 20 | 05/30/2025 | DMW | |
| Lead | | | | | 2.42 | 20 | 05/30/2025 | DMW | |
| **Matrix Spike (B251685-MS1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | 97.8 | 70-130 | | | 05/30/2025 | DMW | |
| Cadmium | | | 98.7 | 70-130 | | | 05/30/2025 | DMW | |
| Lead | | | 98.7 | 70-130 | | | 05/30/2025 | DMW | |
| **Matrix Spike Dup (B251685-MSD1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | 96.2 | 70-130 | 1.38 | 20 | 05/30/2025 | DMW | |
| Cadmium | | | 97.2 | 70-130 | 1.48 | 20 | 05/30/2025 | DMW | |
| Lead | | | 97.0 | 70-130 | 1.16 | 20 | 05/30/2025 | DMW | |
| **Batch: B251722** | | | | | | | | | |
| **Blank (B251722-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 05/30/2025 | SMC | U |
| Magnesium | <40 | ug/L | | | | | 05/30/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 05/30/2025 | SMC | U |
| **LCS (B251722-BS1)** | | | | | | | | | |
| Calcium | | | 100 | 85-115 | | | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 85-115 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 102 | 85-115 | | | 05/30/2025 | SMC | |
| **Duplicate (B251722-DUP1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | | | 1.99 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | | | 0.447 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | | | 3.02 | 20 | 05/30/2025 | SMC | |
| **Duplicate (B251722-DUP2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | | | 3.07 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | | | 4.00 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | | | 14.2 | 20 | 05/30/2025 | SMC | |
| **Matrix Spike (B251722-MS1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | | | 05/30/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B251722 (Continued)** | | | | | | | | | |
| **Matrix Spike (B251722-MS2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | 97.6 | 70-130 | | | 05/30/2025 | SMC | |
| Magnesium | | | 98.6 | 70-130 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 79.3 | 70-130 | | | 05/30/2025 | SMC | |
| **Matrix Spike Dup (B251722-MSD1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | 0.113 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.0632 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | 1.48 | 20 | 05/30/2025 | SMC | |
| **Matrix Spike Dup (B251722-MSD2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | 99.0 | 70-130 | 0.858 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | 99.8 | 70-130 | 1.10 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | 75.7 | 70-130 | 1.24 | 20 | 05/30/2025 | SMC | |
| **Batch: B251763** | | | | | | | | | |
| **Blank (B251763-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 06/03/2025 | SAS | U |
| **LCS (B251763-BS1)** | | | | | | | | | |
| Mercury | | | 100 | 85-115 | | | 06/03/2025 | SAS | |
| **Duplicate (B251763-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 06/03/2025 | SAS | U |
| **Matrix Spike (B251763-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | 92.8 | 70-130 | | | 06/03/2025 | SAS | |
| **Matrix Spike Dup (B251763-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | 95.9 | 70-130 | 2.91 | 20 | 06/03/2025 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B251682** | | | | | | | | | |
| **Blank (B251682-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 05/23/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 05/23/2025 | DMW | U |
| Lead | <0.0050 | ug/L | | | | | 05/23/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 05/23/2025 | DMW | U |
| **LCS (B251682-BS1)** | | | | | | | | | |
| Cadmium | | | 98.3 | 85-115 | | | 05/23/2025 | DMW | |
| Copper | | | 93.9 | 85-115 | | | 05/23/2025 | DMW | |
| Lead | | | 97.1 | 85-115 | | | 05/23/2025 | DMW | |
| Zinc | | | 97.0 | 85-115 | | | 05/23/2025 | DMW | |
| **Duplicate (B251682-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 05/23/2025 | DMW | U |
| Copper | | | | | 0.733 | 10 | 05/23/2025 | DMW | |
| Lead | | | | | 0.547 | 10 | 05/23/2025 | DMW | |
| Zinc | | | | | 0.620 | 10 | 05/23/2025 | DMW | |
| **Matrix Spike (B251682-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | 97.9 | 70-130 | | | 05/23/2025 | DMW | |
| Copper | | | 94.2 | 70-130 | | | 05/23/2025 | DMW | |
| Lead | | | 96.5 | 70-130 | | | 05/23/2025 | DMW | |
| Zinc | | | 100 | 70-130 | | | 05/23/2025 | DMW | |
| **Matrix Spike Dup (B251682-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | 99.0 | 70-130 | 1.08 | 10 | 05/23/2025 | DMW | |
| Copper | | | 93.2 | 70-130 | 0.866 | 10 | 05/23/2025 | DMW | |
| Lead | | | 97.4 | 70-130 | 0.908 | 10 | 05/23/2025 | DMW | |
| Zinc | | | 98.1 | 70-130 | 1.67 | 10 | 05/23/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284
**Purchase Order: 63069586**
**Project: Stormwater PI**
Sampler(s): Kristen Jolliffe
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Water | Grab | Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg – EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride – EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00403-01 | 5/17/25 | 5/18/25 | 1956 | 0318 | 250517-03-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| -02 | ↓ | ↓ | 1924 | 0503 | 250517-11-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 3 |
| -03 | ↓ | ↓ | 1154 | 0630 | 250517-14-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | ~~5/18/25~~ 1230 | 5/18/25 1236 | 3.8°C 1of3 14-WC ~~7.6°C 2of2 200-WC~~<br>3.6°C 3of3 14 WC ~~3.6°C 1of2 200-WC~~<br>4.8°C 2of3 14WC<br>4.9°C 1of2 03-WC 2.6°C 1of3 11-WC<br>5.5°C 2of2 03-WC 4.9°C 2of3 11-WC<br>1.3°C 3of3 11-WC |

COC_WQL-PI

241010 ST

# AC00403

AC00403

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00404-01 | ACST1C | 250517-206-WC | Water | | 5/18/25 5:13 | 5/18/25 12:36 |

***Comments:***

Temperature at receipt, 2 containers: 7.6 and 3.6 degrees C

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250517-206-WC |
| Date/Time Collected: | 05/17/2025 18:44 - 05/18/2025 05:13 | | |
| Lab Number: | AC00404-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B251700 | 0.338 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 05/27/25 | 5/27/25 11:52 | ALN | |
| BOD5 | B251598 | 67.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 05/18/25 | 5/23/25 15:36 | MCB | |
| Chloride | B251627 | 4.36 | mg/L | 0.0200 | 0.0200 | EPA 300.0, Rev. 2.1 (1993) | 05/20/25 | 5/20/25 19:23 | RHC | |
| COD | B251605 | 262 | mg/L | 7.00 | 7.00 | HH 8000, Standard Method 5220 D | 05/19/25 | 5/19/25 9:56 | RCJ | |
| Nitrate-Nitrite, as N | B251656 | 0.213 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 05/21/25 | 5/21/25 13:04 | JAL | |
| TKN | B251621 | 4.45 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 05/19/25 | 5/20/25 10:46 | JAL | |
| Total Dissolved Solids | B251647 | 106 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 05/21/25 | 5/23/25 7:33 | NTS | |
| Total Suspended Solids | B251612 | 169 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 05/19/25 | 5/19/25 10:09 | NTS | |
| Turbidity | B251603 | 67.3 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 9:40 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B251618 | 0.543 | mg/L | 6.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 05/19/25 | 5/19/25 11:50 | JAL | D |
| **Total Metals** | | | | | | | | | | |
| Mercury | B251763 | 0.0179 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 06/03/25 | 6/3/25 13:03 | SAS | |
| Arsenic | B251685 | 2.5 | ug/L | 0.050 | 0.050 | EPA 200.8 | 05/24/25 | 5/30/25 17:45 | DMW | |
| Cadmium | B251685 | 0.10 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:45 | DMW | |
| Calcium | B251722 | 7.72 | mg/L | 0.0400 | 0.0400 | EPA 200.7 | 05/29/25 | 5/30/25 10:44 | SMC | |
| Lead | B251685 | 7.7 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/24/25 | 5/30/25 17:45 | DMW | |
| Magnesium | B251722 | 2080 | ug/L | 40.0 | 40.0 | EPA 200.7 | 05/29/25 | 5/30/25 10:44 | SMC | |
| Phosphorus as P | B251722 | 1.09 | mg/L | 0.0120 | 0.0120 | EPA 200.7 | 05/29/25 | 5/30/25 10:44 | SMC | |
| Hardness | B251722 | 27.8 | mg/L | 0.100 | 0.100 | SM 2340 B-2011 | 05/29/25 | 5/30/25 10:44 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B251682 | 0.015 | ug/L | 0.010 | 0.010 | EPA 200.8 | 05/23/25 | 5/23/25 16:34 | DMW | |
| Copper | B251682 | 9.4 | ug/L | 0.14 | 0.14 | EPA 200.8 | 05/23/25 | 5/23/25 16:34 | DMW | |
| Lead | B251682 | 0.41 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 05/23/25 | 5/23/25 16:34 | DMW | |
| Zinc | B251682 | 40.4 | ug/L | 0.50 | 0.50 | EPA 200.8 | 05/23/25 | 5/23/25 16:34 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 06/06/2025 10:52

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B251598** | | | | | | | | | |
| **Blank (B251598-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 05/23/2025 | MCB | U |
| **LCS (B251598-BS1)** | | | | | | | | | |
| BOD5 | | | 102 | 84.6-115.4 | | | 05/23/2025 | MCB | |
| **LCS (B251598-BS2)** | | | | | | | | | |
| BOD5 | | | 108 | 84.6-115.4 | | | 05/23/2025 | MCB | |
| **Duplicate (B251598-DUP1)** | Source ID: BB04755-01 | | | | | | | | |
| BOD5 | | | | | 0.925 | 30 | 05/23/2025 | MCB | D |
| **Batch: B251603** | | | | | | | | | |
| **Blank (B251603-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 05/19/2025 | ASE | U |
| **LCS (B251603-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 05/19/2025 | ASE | |
| **Duplicate (B251603-DUP1)** | Source ID: AC00403-03 | | | | | | | | |
| Turbidity | | | | | 2.04 | 25 | 05/19/2025 | ASE | D |
| **Batch: B251605** | | | | | | | | | |
| **Blank (B251605-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 05/19/2025 | RCJ | U |
| **LCS (B251605-BS1)** | | | | | | | | | |
| COD | | | 99.7 | 90-110 | | | 05/19/2025 | RCJ | |
| **Duplicate (B251605-DUP1)** | Source ID: AC00403-01 | | | | | | | | |
| COD | | | | | 3.24 | 10 | 05/19/2025 | RCJ | |
| **Batch: B251612** | | | | | | | | | |
| **Blank (B251612-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 05/19/2025 | NTS | U |
| **LCS (B251612-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 99.6 | 90-110 | | | 05/19/2025 | NTS | |
| **Duplicate (B251612-DUP1)** | Source ID: LS02351-02 | | | | | | | | |
| Total Suspended Solids | | | | | 2.02 | 20 | 05/19/2025 | NTS | |
| **Duplicate (B251612-DUP2)** | Source ID: BB04762-01 | | | | | | | | |
| Total Suspended Solids | | | | | 3.96 | 20 | 05/19/2025 | NTS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251621** | | | | | | | | | |
| **Blank (B251621-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 05/20/2025 | JAL | U |
| **Blank (B251621-BLK2)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 05/20/2025 | JAL | U |
| **LCS (B251621-BS1)** | | | | | | | | | |
| TKN | | | 101 | 80-120 | | | 05/20/2025 | JAL | |
| **LCS (B251621-BS2)** | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 05/20/2025 | JAL | |
| **Duplicate (B251621-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | | | 1.97 | 20 | 05/20/2025 | JAL | |
| **Duplicate (B251621-DUP2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | | | 1.33 | 20 | 05/20/2025 | JAL | D |
| **Duplicate (B251621-DUP3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | | | 1.18 | 20 | 05/20/2025 | JAL | D |
| **Matrix Spike (B251621-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | | | 05/20/2025 | JAL | |
| **Matrix Spike (B251621-MS2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | 105 | 80-120 | | | 05/20/2025 | JAL | D |
| **Matrix Spike (B251621-MS3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | 113 | 80-120 | | | 05/20/2025 | JAL | D |
| **Matrix Spike Dup (B251621-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.165 | 20 | 05/20/2025 | JAL | |
| **Matrix Spike Dup (B251621-MSD2)** Source ID: BB04734-02 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 0.619 | 20 | 05/20/2025 | JAL | D |
| **Matrix Spike Dup (B251621-MSD3)** Source ID: WB03768-03 | | | | | | | | | |
| TKN | | | 112 | 80-120 | 0.577 | 20 | 05/20/2025 | JAL | D |
| **Batch: B251627** | | | | | | | | | |
| **Blank (B251627-BLK1)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 05/20/2025 | RHC | U |
| **Blank (B251627-BLK2)** | | | | | | | | | |
| Chloride | <0.02 | mg/L | | | | | 05/21/2025 | RHC | U |
| **LCS (B251627-BS1)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/20/2025 | RHC | |
| **LCS (B251627-BS2)** | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/21/2025 | RHC | |
| **Duplicate (B251627-DUP1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | | | 0.174 | 10 | 05/20/2025 | RHC | |
| **Duplicate (B251627-DUP2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | | | 1.20 | 10 | 05/21/2025 | RHC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251627 (Continued)** | | | | | | | | | |
| **Duplicate (B251627-DUP3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | | | 0.0909 | 10 | 05/21/2025 | RHC | |
| **Duplicate (B251627-DUP4)** Source ID: TM00476-02RE1 | | | | | | | | | |
| Chloride | | | | | 0.757 | 10 | 05/21/2025 | RHC | D |
| **Matrix Spike (B251627-MS1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/20/2025 | RHC | |
| **Matrix Spike (B251627-MS2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | 104 | 90-110 | | | 05/21/2025 | RHC | |
| **Matrix Spike (B251627-MS3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | | | 05/21/2025 | RHC | |
| **Matrix Spike (B251627-MS4)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | | | 05/21/2025 | RHC | D |
| **Matrix Spike Dup (B251627-MSD1)** Source ID: AC00403-01 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | 0.504 | 10 | 05/20/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD2)** Source ID: ES00387-02 | | | | | | | | | |
| Chloride | | | 101 | 90-110 | 2.35 | 10 | 05/21/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD3)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 104 | 90-110 | 1.12 | 10 | 05/21/2025 | RHC | |
| **Matrix Spike Dup (B251627-MSD4)** Source ID: TM00476-02 | | | | | | | | | |
| Chloride | | | 102 | 90-110 | 0.400 | 10 | 05/21/2025 | RHC | D |
| **Batch: B251647** | | | | | | | | | |
| **Blank (B251647-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 05/22/2025 | NTS | U |
| **LCS (B251647-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 97.0 | 90-110 | | | 05/22/2025 | NTS | |
| **Duplicate (B251647-DUP1)** Source ID: EN00065-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 1.15 | 10 | 05/22/2025 | NTS | |
| **Duplicate (B251647-DUP2)** Source ID: TM00474-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 3.73 | 10 | 05/22/2025 | NTS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251656** | | | | | | | | | |
| **Blank (B251656-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 05/21/2025 | JAL | U |
| **Blank (B251656-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 05/21/2025 | JAL | U |
| **LCS (B251656-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 98.2 | 90-110 | | | 05/21/2025 | JAL | |
| **LCS (B251656-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.8 | 90-110 | | | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.227 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | NR | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.563 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 3.58E-3 | 10 | 05/21/2025 | JAL | |
| **Duplicate (B251656-DUP5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.159 | 10 | 05/21/2025 | JAL | D |
| **Matrix Spike (B251656-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.6 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 91.2 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 94.9 | 90-110 | | | 05/21/2025 | JAL | |
| **Matrix Spike (B251656-MS5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 92.4 | 90-110 | | | 05/21/2025 | JAL | D |
| **Matrix Spike Dup (B251656-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.0 | 90-110 | 0.0605 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD2)** Source ID: BB04768-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.5 | 90-110 | 0.156 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD3)** Source ID: TM00476-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 90.1 | 90-110 | 0.151 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD4)** Source ID: WB03778-03 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 95.3 | 90-110 | 0.115 | 10 | 05/21/2025 | JAL | |
| **Matrix Spike Dup (B251656-MSD5)** Source ID: TM00476-01RE1 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 93.0 | 90-110 | 0.276 | 10 | 05/21/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B251700** | | | | | | | | | |
| **Blank (B251700-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 05/27/2025 | ALN | U |
| **LCS (B251700-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 101 | 90-110 | | | 05/27/2025 | ALN | |
| **Duplicate (B251700-DUP2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | | | 3.80 | 20 | 05/27/2025 | ALN | D |
| **Matrix Spike (B251700-MS2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | 93.7 | 84-115 | | | 05/27/2025 | ALN | D |
| **Matrix Spike Dup (B251700-MSD2)** Source ID: AC00405-01RE1 | | | | | | | | | |
| Ammonia, as N | | | 94.5 | 84-115 | 0.815 | 20 | 05/27/2025 | ALN | D |
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B251618** | | | | | | | | | |
| **Blank (B251618-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 05/19/2025 | JAL | U |
| **LCS (B251618-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 99.8 | 90-110 | | | 05/19/2025 | JAL | |
| **Duplicate (B251618-DUP1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.434 | 10 | 05/19/2025 | JAL | |
| **Duplicate (B251618-DUP2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0285 | 10 | 05/19/2025 | JAL | D |
| **Matrix Spike (B251618-MS1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | 105 | 90-110 | | | 05/19/2025 | JAL | |
| **Matrix Spike (B251618-MS2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | 102 | 90-110 | | | 05/19/2025 | JAL | D |
| **Matrix Spike Dup (B251618-MSD1)** Source ID: AC00403-03 | | | | | | | | | |
| Orthophosphate, as P | | | 104 | 90-110 | 0.244 | 10 | 05/19/2025 | JAL | |
| **Matrix Spike Dup (B251618-MSD2)** Source ID: WB03774-07 | | | | | | | | | |
| Orthophosphate, as P | | | 103 | 90-110 | 0.381 | 10 | 05/19/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B251685** | | | | | | | | | |
| **Blank (B251685-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 05/30/2025 | DMW | U |
| Cadmium | <0.010 | ug/L | | | | | 05/30/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 05/30/2025 | DMW | U |
| **LCS (B251685-BS1)** | | | | | | | | | |
| Arsenic | | | 98.4 | 85-115 | | | 05/30/2025 | DMW | |
| Cadmium | | | 99.2 | 85-115 | | | 05/30/2025 | DMW | |
| Lead | | | 99.7 | 85-115 | | | 05/30/2025 | DMW | |
| **Duplicate (B251685-DUP1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | | | 1.86 | 20 | 05/30/2025 | DMW | |
| Cadmium | | | | | 1.98 | 20 | 05/30/2025 | DMW | |
| Lead | | | | | 2.42 | 20 | 05/30/2025 | DMW | |
| **Matrix Spike (B251685-MS1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | 97.8 | 70-130 | | | 05/30/2025 | DMW | |
| Cadmium | | | 98.7 | 70-130 | | | 05/30/2025 | DMW | |
| Lead | | | 98.7 | 70-130 | | | 05/30/2025 | DMW | |
| **Matrix Spike Dup (B251685-MSD1)** Source ID: AC00403-02 | | | | | | | | | |
| Arsenic | | | 96.2 | 70-130 | 1.38 | 20 | 05/30/2025 | DMW | |
| Cadmium | | | 97.2 | 70-130 | 1.48 | 20 | 05/30/2025 | DMW | |
| Lead | | | 97.0 | 70-130 | 1.16 | 20 | 05/30/2025 | DMW | |
| **Batch: B251722** | | | | | | | | | |
| **Blank (B251722-BLK1)** | | | | | | | | | |
| Calcium | <0.04 | mg/L | | | | | 05/30/2025 | SMC | U |
| Magnesium | <40 | ug/L | | | | | 05/30/2025 | SMC | U |
| Phosphorus as P | <0.012 | mg/L | | | | | 05/30/2025 | SMC | U |
| **LCS (B251722-BS1)** | | | | | | | | | |
| Calcium | | | 100 | 85-115 | | | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 85-115 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 102 | 85-115 | | | 05/30/2025 | SMC | |
| **Duplicate (B251722-DUP1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | | | 1.99 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | | | 0.447 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | | | 3.02 | 20 | 05/30/2025 | SMC | |
| **Duplicate (B251722-DUP2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | | | 3.07 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | | | 4.00 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | | | 14.2 | 20 | 05/30/2025 | SMC | |
| **Matrix Spike (B251722-MS1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | 101 | 70-130 | | | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 103 | 70-130 | | | 05/30/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B251722 (Continued)** | | | | | | | | | |
| **Matrix Spike (B251722-MS2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | 97.6 | 70-130 | | | 05/30/2025 | SMC | |
| Magnesium | | | 98.6 | 70-130 | | | 05/30/2025 | SMC | |
| Phosphorus as P | | | 79.3 | 70-130 | | | 05/30/2025 | SMC | |
| **Matrix Spike Dup (B251722-MSD1)** Source ID: AC00403-02 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | 0.113 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 0.0632 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | 1.48 | 20 | 05/30/2025 | SMC | |
| **Matrix Spike Dup (B251722-MSD2)** Source ID: AC00404-01 | | | | | | | | | |
| Calcium | | | 99.0 | 70-130 | 0.858 | 20 | 05/30/2025 | SMC | |
| Magnesium | | | 99.8 | 70-130 | 1.10 | 20 | 05/30/2025 | SMC | |
| Phosphorus as P | | | 75.7 | 70-130 | 1.24 | 20 | 05/30/2025 | SMC | |
| **Batch: B251763** | | | | | | | | | |
| **Blank (B251763-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 06/03/2025 | SAS | U |
| **LCS (B251763-BS1)** | | | | | | | | | |
| Mercury | | | 100 | 85-115 | | | 06/03/2025 | SAS | |
| **Duplicate (B251763-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 06/03/2025 | SAS | U |
| **Matrix Spike (B251763-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | 92.8 | 70-130 | | | 06/03/2025 | SAS | |
| **Matrix Spike Dup (B251763-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Mercury | | | 95.9 | 70-130 | 2.91 | 20 | 06/03/2025 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B251682** | | | | | | | | | |
| **Blank (B251682-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 05/23/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 05/23/2025 | DMW | U |
| Lead | <0.0050 | ug/L | | | | | 05/23/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 05/23/2025 | DMW | U |
| **LCS (B251682-BS1)** | | | | | | | | | |
| Cadmium | | | 98.3 | 85-115 | | | 05/23/2025 | DMW | |
| Copper | | | 93.9 | 85-115 | | | 05/23/2025 | DMW | |
| Lead | | | 97.1 | 85-115 | | | 05/23/2025 | DMW | |
| Zinc | | | 97.0 | 85-115 | | | 05/23/2025 | DMW | |
| **Duplicate (B251682-DUP1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 05/23/2025 | DMW | U |
| Copper | | | | | 0.733 | 10 | 05/23/2025 | DMW | |
| Lead | | | | | 0.547 | 10 | 05/23/2025 | DMW | |
| Zinc | | | | | 0.620 | 10 | 05/23/2025 | DMW | |
| **Matrix Spike (B251682-MS1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | 97.9 | 70-130 | | | 05/23/2025 | DMW | |
| Copper | | | 94.2 | 70-130 | | | 05/23/2025 | DMW | |
| Lead | | | 96.5 | 70-130 | | | 05/23/2025 | DMW | |
| Zinc | | | 100 | 70-130 | | | 05/23/2025 | DMW | |
| **Matrix Spike Dup (B251682-MSD1)** Source ID: AC00405-01 | | | | | | | | | |
| Cadmium | | | 99.0 | 70-130 | 1.08 | 10 | 05/23/2025 | DMW | |
| Copper | | | 93.2 | 70-130 | 0.866 | 10 | 05/23/2025 | DMW | |
| Lead | | | 97.4 | 70-130 | 0.908 | 10 | 05/23/2025 | DMW | |
| Zinc | | | 98.1 | 70-130 | 1.67 | 10 | 05/23/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 06/06/2025 10:52

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

ACHD MAY 2025

## Stephen Quintero

**From:** Monica Lowe <mlowe@achdidaho.org>
**Sent:** Tuesday, May 20, 2025 10:32 AM
**To:** Stephen Quintero; Kristen Jolliffe
**Cc:** Steven Turner
**Subject:** [External] RE: 250517-206-WC sample temperature

**Caution:** This email came from outside the city. Use caution before clicking on links, opening attachments, or responding.

Hi Stephen,

Thank you for letting us know. Please add a comment to the sample that it exceeded temperature. We will be qualifying the parameters that exceed holding temp requirements.

**Monica Lowe**
Environmental Supervisor | Environmental Department

Ada County Highway District (ACHD)
3775 Adams Street, Garden City, Idaho 83714
**Phone**: (208)387-6255
www.achdidaho.org
*Connect with us on social!* ***@achdidaho***




**From:** Stephen Quintero <SQuintero@cityofboise.org>
**Sent:** Tuesday, May 20, 2025 9:24 AM
**To:** Monica Lowe <mlowe@achdidaho.org>; Kristen Jolliffe <kjolliffe@achdidaho.org>
**Subject:** 250517-206-WC sample temperature

**Caution:** This is an external email and has a suspicious subject or content. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

Good morning,

In reviewing the COC for 250517-206-WC from 5/18/25, I see that one of the two sample bottles was received at a temperature of 7.6 C. (It was checked twice.) The other bottle was at 3.6 C. These samples were composited to create one sample.

How would you like us to proceed? We can cancel, qualify, or add a comment to the sample.

Let me know if you have any questions,
Stephen

Stephen Quintero
*QA/QC Coordinator, Water Quality Laboratory*
*Public Works Department*
Office: 208-608-7262
squintero@cityofboise.org

*Creating a city for everyone.*

AQUA

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order: 63069586**

**Project: Stormwater PI**

Sampler(s): Steven Turner
Kristen Jolliffe

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | $NO_3$+$NO_2$ - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00404-01 | 5/17/25 | 5/18/25 | 1844 | 0513 | 250517-2D6-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 5/18/25 1230 | 5/16/25 1236 | 7.6°C 2of2 2D6-WC<br>3.6°C 1of2 2D6-WC |

:OC_WQL-PI

241010 ST

# AC00404

AC00404

# NPDES Phase I Storm Event Report
# August 26, 2025

Prepared by
Ada County Highway District
October 13, 2025

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. The Main Alternate (Main Alt) monitoring site may be used when high river flows surcharge the Main storm drainpipes. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the August 26, 2025, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

Table 2-1. WY 2025 Samples Collected

| Date | Lucky | Whitewater | Main | Main Alt | Americana | AS_6 |
|---|---|---|---|---|---|---|
| December 14, 2024 | G, C[1] | G, C | G, C | -- | G, C | G, C |
| January 31, 2025 | --, C | --, C[2] | --. C | -- | --, C[2] | --, C[3] |
| February 23, 2025 | G, C[4] | G, -- | G, C | -- | G, C[2] | G, C |
| May 17, 2025 | G, C | --, C | -- | G, -- | G, C | G, C[4] |
| August 26, 2025 | --, C[4] | G[5], -- | --, -- | --, -- | --, -- | --, C[4] |
| Unqualified Samples: | 3G, 2C | 2G, 2C | 3G, 3C | | 3G, 2C | 3G, 2C |
| Samples Remaining: | 0G, 1C | 1G, 1C | 0G, 0C | | 0G, 1C | 0G, 1C |

*Notes:*

*-- = no samples taken.*

*C = composite sample.*

*G = grab sample.*

*[1] Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

*[2] Composite sample qualified due to lack of representativeness (50%–75%).*

*[3] Sample rejected due to lack of representativeness (<50%).*

*[4] Composite sample qualified due to exceedance of 6.0°C.*

*[5] E. coli sample qualified due to exceeded holding time.*

# Section 3: Storm Event Summary

The August 26, 2025, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from August 26, 2025, is included in Attachment A for reference.

### Tuesday, August 26, 2025 (Sampling Event Communication & Set up)

- On the morning of August 26, the National Weather Service issued a forecast for a convective system beginning on August 27 at 0000 until 1800. There was a 70% chance of precipitation, with a 50-60% probability of rain totals to be greater than 0.1 inches over a 12-hour period. The forecasted precipitation for this event was 0.50 inches of rain.
- Setup was accomplished on the morning of August 26. An expected precipitation depth of 0.15 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

### Tuesday, August 26, 2025 (Storm Event)

- The runoff started on August 26 at approximately 1739 and ended on August 27 at approximately 1439.
- Precipitation totals ranged between 0.41 and 0.91 inches at local rain gauges.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Lucky, Whitewater, and AS_6 sites showing flow, rain, and sample collection data are included in Attachment B.

## 3.2 Sampling Summary

Lucky, Whitewater, Americana and AS_6 monitoring stations were set up on August 26, 2025, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Lucky, Whitewater, Americana and AS_6 flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Grab Samples

A two-member team mobilized to collect stormwater runoff grab samples and verify operation of the automatic sampling equipment on August 26 around 1925. Grab samples for Whitewater were submitted to the Boise City Public Works Water Quality Laboratory (WQL) at 2223 on August 26. Results for grab samples, including field parameter and analytical data, are included in Table 2. Laboratory analytical reports are included in Attachment D.

### Composite Samples

Composite samples were collected at the Lucky and AS_6 monitoring stations and submitted to the WQL at 1003 on August 27. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

A summary of quality control samples collected during the August 26, 2025, storm event is presented below in Table 4-1. A field blank and a field duplicate were collected from the Whitewater monitoring station. The analytical results are included in Table 4.

Table 4-1. Quality Control Samples

| Sample ID | Sample Type | Parent Sample | Conclusions |
|---|---|---|---|
| 250826-11-001 | Field blank | Whitewater grab | No *E. coli* detected in the field blank. |
| 250826-11-101 | Field duplicate | Whitewater grab | Relative percent difference was within the acceptable range. |

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A.

An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. The Lucky and AS_6 composite samples met the representativeness criteria. However, the composite samples collected at Lucky and AS_6 exceeded the preservation maximum of 6°C. Therefore, all constituents analyzed are considered estimates with the exception of total metals, hardness, and chloride, in accordance with 40CFR136.

A grab sample is accepted if the sample is prepared within 8 hours of sample collection and qualified if the sample is prepared between 8 and 16 hours after sample collection. The Whitewater grab sample, including the field blank and field duplicate, were prepared approximately 11 hours after sample collection and are therefore qualified.

# Section 5: Notes and Recommendations

### Whitewater

During the storm event, the sampler at Whitewater displayed several “No more liquid” and “No liquid detected” messages, comprising of more than half of the total subsample attempts between both composite bottles one and two. ACHD attempted to troubleshoot the sampler on site by checking the tubing alignment on the liquid sensor of the sampler. Attempts to troubleshoot were not successful, and the composite sample was discarded due to lack of representativeness.

After the storm event, ACHD inspected the sampling equipment and discovered kinks in the intake tubing and loose connections between the intake tubing and the strainer. New intake tubing and connections were installed at the site and tested to ensure no air was entering the tubing. To reduce the potential of tubing kinks during future storm events, the intake tubing and strainer were installed on a scissor-jack ring in the storm drain pipe.

### Americana

The sampler at Americana collected approximately nine non-stormwater subsamples prior to the start of the storm event attributed to increased dry weather flow after the completion of station setup. Due to the irregularity of flow in the Americana subwatershed, these types of occurrences are not easily predicted or remedied. The composite sample was discarded due to the large volume of non-stormwater subsamples.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main | Americana | AS_6 |
| Grab samples collected and submitted? | NO | YES | NO | NO | NO |
| Composite samples collected and submitted? | YES | NO | NO | NO | YES |
| Trigger volume | 3,950 gal | 1,093 cf | -- | 4,036 cf | 2,252 gal |
| Sampler enable condition (in) or Velocity cutoff (fps) | Level > 2.29 | Level > 6.3 | -- | Level > 6.8 | Level > 1.0 |
| Deadband/ Hysteresis (in) | 1.0" | 1.0" | -- | 1.0" | 1.0" |
| Runoff start time | 2129[1] | 1749[1] | -- | -- | 1739[1] |
| Grab sample collection time | -- | 2033 | -- | -- | -- |
| Composite sample stop time | 0811 | -- | -- | -- | 0850 |
| Runoff stop time | 1044[2] | 0828[2] | -- | -- | 1439[2] |
| Volume of discharge sampled ($ft^3$) | 25,109 | -- | -- | -- | 30,691 |
| Total runoff volume ($ft^3$) | 28,093 | 177,783 | -- | -- | 41,138 |
| Percent of storm flow sampled (%) | 89% | -- | -- | -- | 75% |
| Composite sample duration (hrs) | 4.5 | -- | -- | -- | 8 |
| Storm Precipitation (in) | 0.41 | 0.69 | 0.80 | 0.80/0.91 | 0.80/0.91 |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | 44 | 22 | -- | -- | 91 |
| : Rinse Error | -- | -- | -- | -- | 1 |
| : No More Liquid | -- | 14 | -- | -- | -- |
| : No Liquid Detected | -- | 12 | -- | -- | -- |
| Number of composite bottles filled | 2 | -- | -- | -- | 4 |
| Composite sample volume (Approx.; ml) | 25,750 mL | -- | -- | -- | 53,750 mL |

*Notes:*

*– = No data.*

[1] *Storm runoff started on 8/26/25.*

[2] *Storm runoff ended on 8/27/25.*

Table 2. Field and Analytical Data Summary

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | MPN/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Lucky | 8/26/2025 | -- | -- | -- | -- | -- | -- | 250826-03-WC | 56.6[J] | 244[J] | 2.58 | 33.9 | 61.3[J] | 131[J] | 120[J] | 0.992[J] | 0.519[J] | 2.11[J] | 0.902[J] | 4.78[J] | 3.7 | 0.019[J] | 0.12 | 7.3[J] | 0.15[J] | 3.8 | 0.0203 | 95.8[J] |
| Whitewater | 8/26/2025 | 250826-11-WG | 6.537 | 6.513 | 112.4 | 23.67 | 4710[#] | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AS_6 | 8/26/2025 | -- | -- | -- | -- | -- | -- | 250826-206-WC | 311[J] | 773[J] | 6.92 | 64.3 | 285[J] | 496[J] | 391[J] | 2.60[J] | 1.33[J] | 2.26[J] | 0.922[J] | 11.5[J] | 9.8 | 0.037[J] | 0.31 | 16.7[J] | 0.64[J] | 20.8 | 0.0641 | 108[J] |

*Notes:*

*-- = No data.*

*[J] Composite sample qualified due to exceedance of 6.0° C.*

*[#] E. coli sample qualified due to exceeded hold time.*

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Lucky | 8/26/2025 | 230[2J] | 1.739[2J] | 3.70[2J] | 1.581[2J] | 8.38[2J] |
| Whitewater | 8/26/2025 | -- | -- | -- | -- | -- |
| AS_6 | 8/26/2025 | 1273[2J] | 6.68[2J] | 5.80[2J] | 2.367[2J] | 29.5[2J] |

*Notes:*

*-- = No data*

[2J] *Composite sample qualified due to exceedance of 6.0°C*

| Table 4. QC Sample Summary | | | | |
|---|---|---|---|---|
| Date | Parent Sample | Sample ID | Type | E. coli |
| | | | | mpn/100 mL |
| 8/26/2025 | 250826-11-WG | 250826-11-001 | Field Blank | <1.0[3J] |
| 8/26/2025 | 250826-11-WG | 250826-11-101 | Field Duplicate | 4710[3J] |
| Calculated parent/duplicate RPD | | | | 0% |
| Allowable RPD | | | | 40% |

*Notes:*

*[3J] E. coli sample qualified due to exceeded hold time.*

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

## SAMPLING EVENT COMMUNICATION FORM

| Date: 8/26/2025 | Time: 8:05 AM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | Yes |

| | |
|---|---|
| Past 72 hr Precip | 0.01"at Airport |
| Date and time of expected event | 2:00 am – 5:00 pm Wednesday |
| Expected amount of precipitation | 0.5" |
| Percent chance of precipitation | 70% |
| Percent chance of >0.10" over 12 hours | 50-60% |

NWS Update

Spoke to Troy at the NWS. A convective rainstorm will arrive from the south on Tuesday evening and deposit ~0.5" of rain until Wednesday evening. There is a 50-60% chance of 0.1" from 12:00 am – 6:00 pm with a chance of seeing a downpour (0.75"-1.25"/ hr). There may be some light rain (0.05") from 6:00 pm – 12:00 am tonight prior to the event.

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☐ Grab | ☒ Grab | ☐ Grab | ☐ Grab | ☐ Grab | ☒ Grab |
| ☒ Composite | ☒ Composite | ☐ Composite | ☒ Composite | ☒ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☐ Light Rain | ☒ Rain | ☐ Rain on Snow |
| ☒ Scattered Showers | ☒ Thunder Showers | ☐ Snowmelt |
| ☐ Other: | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☐ Waiting on Antecedent Dry Period –
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: 2 Miles NNW Garden City ID
Issued by: National Weather Service Boise, ID
Last Update: 3:04 am MDT Aug 26, 2025

Today: Isolated showers and thunderstorms after noon. Patchy smoke. Partly sunny, with a high near 88. Calm wind becoming south southwest around 5 mph in the afternoon. Chance of precipitation is 20%.
**Tonight: A chance of showers and thunderstorms, then showers likely and possibly a thunderstorm after midnight.** Patchy smoke after 3am. Mostly cloudy, with a low around 65. West northwest wind around 5 mph becoming calm in the evening. **Chance of precipitation is 70%.**
**Wednesday: Showers likely and possibly a thunderstorm.** Cloudy, with a high near 77. Calm wind becoming west northwest around 6 mph in the afternoon. **Chance of precipitation is 70%. New rainfall amounts between a quarter and half of an inch possible.**
Wednesday Night: A chance of showers and thunderstorms. Mostly cloudy, with a low around 62. North wind around 6 mph becoming calm in the evening. Chance of precipitation is 30%.

Thursday: A 30 percent chance of showers, mainly before noon. Mostly sunny, with a high near 84. Calm wind becoming west northwest around 6 mph in the afternoon.
Thursday Night: Partly cloudy, with a low around 61.
Friday: Sunny, with a high near 88.
Friday Night: Mostly clear, with a low around 60.
Saturday: Sunny and hot, with a high near 90.
Saturday Night: Mostly clear, with a low around 61.
Sunday: Sunny and hot, with a high near 90.
Sunday Night: Mostly clear, with a low around 61.
Labor Day: Sunny and hot, with a high near 90.

Forecast Discussion

Area Forecast Discussion
National Weather Service Boise ID
415 AM MDT Tue Aug 26 2025

.SHORT TERM...Today through Thursday night...Deep monsoon moisture will remain over the region through Wednesday. **Monday evening`s KBOI wx balloon measured a record amount of precipitable water for the date (1.28 inches),** and the moisture content of the air mass is expected to increase this afternoon into Wednesday with forecast **PW values reaching 1.35-1.5 inches.** Showers and thunderstorms will initiate over higher terrain through this morning. Models are picking up on a subtle upper wave that lifts out of NV late this afternoon, the extra lift from this feature increasing coverage across higher terrain. Southerly flow aloft will guide showers/storms into the Snake Plain, especially from Mountain Home to Twin/Jerome where the HREF shows a 50-70% chance of thunderstorms through this evening. **The main shower/storm attribute will be heavy rain, with most CAM guidance showing potential for 0.75-1.25 in/hr rainfall rates from stronger storms that develop.** While higher terrain will be quick to cloud up today, lower elevations have a chance to see a bit of sun, especially areas across e-central Oregon and the lower Snake Plain. Have stayed below NBM guidance which has been running too hot the last couple of days.

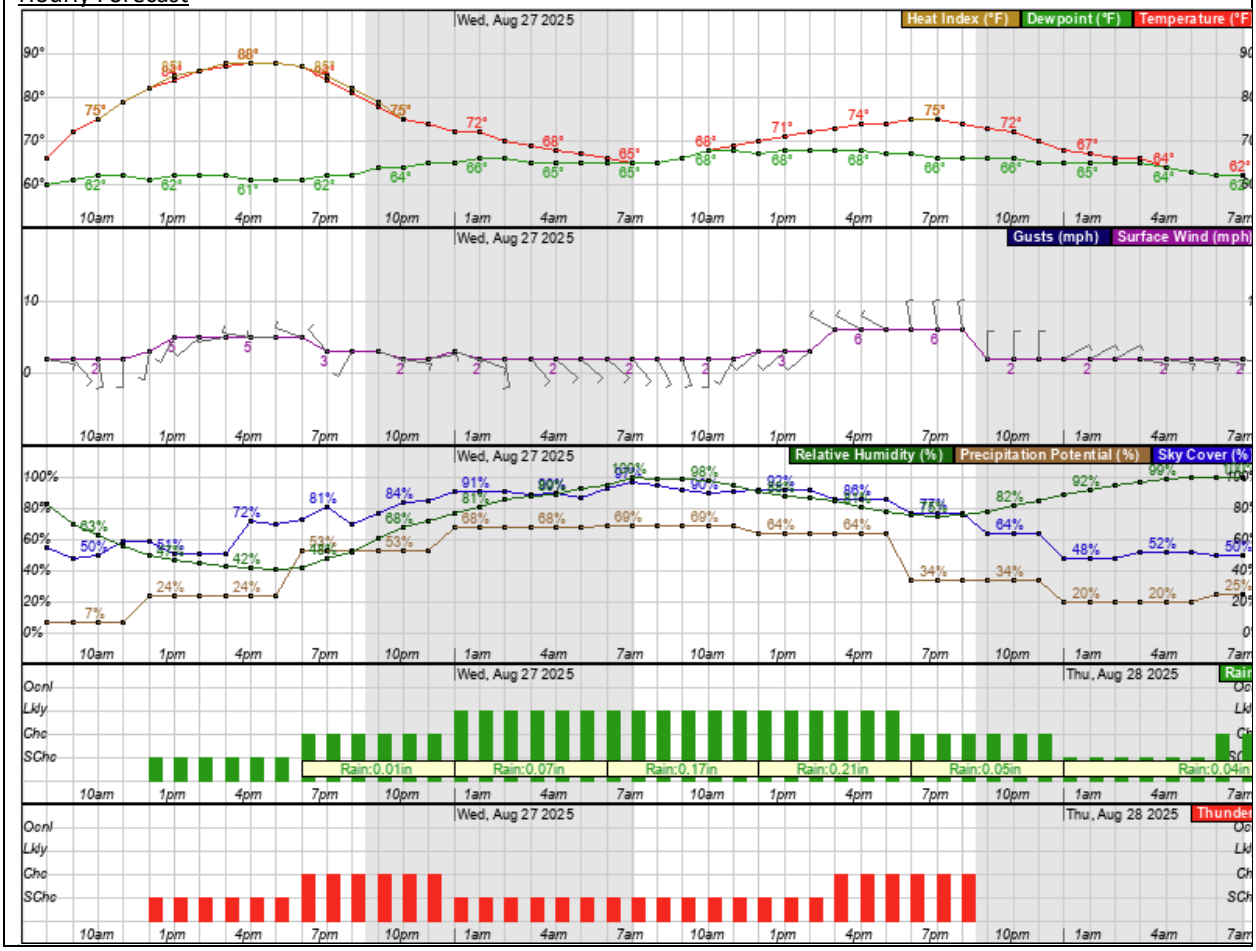
An upper low is expected to wrap up over s-central Idaho Wednesday which will keep cloudy and wet weather over the region. The 00Z model solutions keep the focus of heavier precipitation east of the ID/OR border, with the w-central ID and Boise mtns seeing the best chance for an additional 0.5-1.0" through Wed night. Given the convective nature there will be high variability in precipitation amounts both today and Wednesday. **On the higher end it`s not out of the question that storm totals (Today through Wednesday night) could reach the 2-3" range.** This type of rainfall will certainly increase the potential for rock slides and flash flooding/debris flows, especially across burn scars and steep terrain. Though likely more localized, areas of e-central Oregon and the Snake Plain will see the potential for moderate to heavy rain on Wednesday as well. Amounts in these areas will likely total less than 0.5". Wednesday will be the coolest day with highs around 10 degrees below normal.

The upper low lifts NE`ward on Thursday, leaving a chance of

showers and a slight chance of thunderstorms across higher terrain of SW Idaho while SE Oregon and the lower Snake Plain in Idaho trend drier. Temperatures will rebound some from Wednesday but remain several degrees below normal.

.LONG TERM...Friday through Tuesday...A broad upper ridge will build into the region on Friday, returning a warming and drying trend. Peak daily valley temperatures are expected to return and mostly linger in the upper 80s and lower 90s Friday to Tuesday. There is strong guidance agreement on an upper low steering NE`ward along the Pacific NW coast and the N`rn Idaho mountains through Monday. There is currently a strong guidance disagreement on whether the aforementioned upper low will either split off or remain quasi- stationary over the NW coast on Tuesday. For now, the potential for showers/thunderstorms early next week remain concentrated across higher elevations.

Hourly Forecast



# Storm Event QA/QC Checklist – Phase I

| STORM DATE: 8/26/2025 | | | | |
|---|---|---|---|---|
| **A. Event and Data Completeness** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | See analytical reports for noted sample container temperatures. |
| 5. Inconsistencies/clarifications discussed with sampling team member | | | X | |
| 6. All analytical reports from lab received | X | | | |
| **B. Validation and Verification Methods** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | KJ | | | |
| 5. Data quality objective achieved | X | | | |

| **C. Specific Storm and Sample QA/QC Criteria** | **Lucky** | **Whitewater** | **Main** | **Americana** | **AS_6** | **Program Criteria** | **Met** | **Qualify** | **Reject** |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | 0.00" | 0.00" | 0.00" | 0.00" | 0.00" | < 0.11" in 72 hrs | X | | |
| 2. Precipitation (inches) | 0.41" | 0.69" | 0.80" | 0.80"/ 0.91" | 0.80"/ 0.91" | > 0.10" | X | | |
| 3. Sampled amount (% of total run-off) | 89% | - | - | - | 75% | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | X | | |
| 4. Composite sample duration (hours) | 4.5 | - | - | - | 8 | | | | |
| 4. E. coli sample holding time (hours) | - | 11 | - | - | - | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | | X | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | 2 | - | - | - | 2 | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

Americana – Composite not submitted to WQ Lab due to non-stormwater flow comprising > 10% of subsamples.
Whitewater – E. coli sample qualified due to exceeded holding time. Composite not submitted to WQ Lab because 'no more liquid' and 'no liquid detected' sampler messages comprised of more than half of the subsamples.
Lucky & AS_6 – Composites exceeded preservation temperature maximum, qualifying the sample. Therefore, all constituents are considered estimates with the exception of total metals, hardness and chloride.

**Reviewed by** Steven Turner Digitally signed by Steven Turner Date: 2025.10.14 09:24:32 -06'00' **Date: 10/14/2025**

**Approved by** Monica I. Lowe Digitally signed by Monica I. Lowe Date: 2025.10.14 11:10:53 -06'00' **Date:**

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

Expected Precipitation Depth = 0.15
Aliquots per Sample = 17

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 8976.1 | **528** |
| Whitewater | 498 | 0.069 | 18574.5 | **1093** |
| Main | 79 | 0.246 | 10581.8 | **622** |
| Main Alt | 60 | 0.200 | 6534.0 | **384** |
| Americana | 875 | 0.144 | 68607.0 | **4036** |
| Americana Alt | 869 | 0.144 | 68136.6 | **4008** |
| AS_6 | 204 | 0.046 | 5109.6 | **301** |
| State | 34 | 0.127 | 2351.2 | **138** |

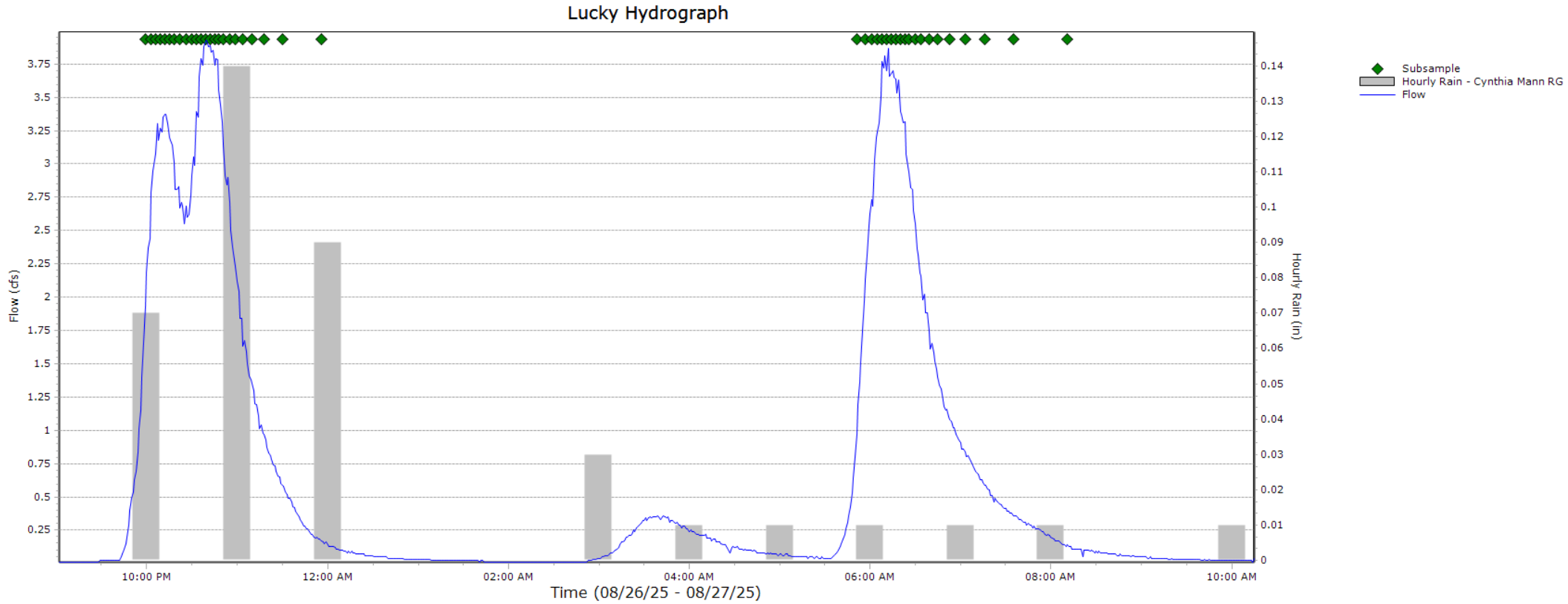
Notes:

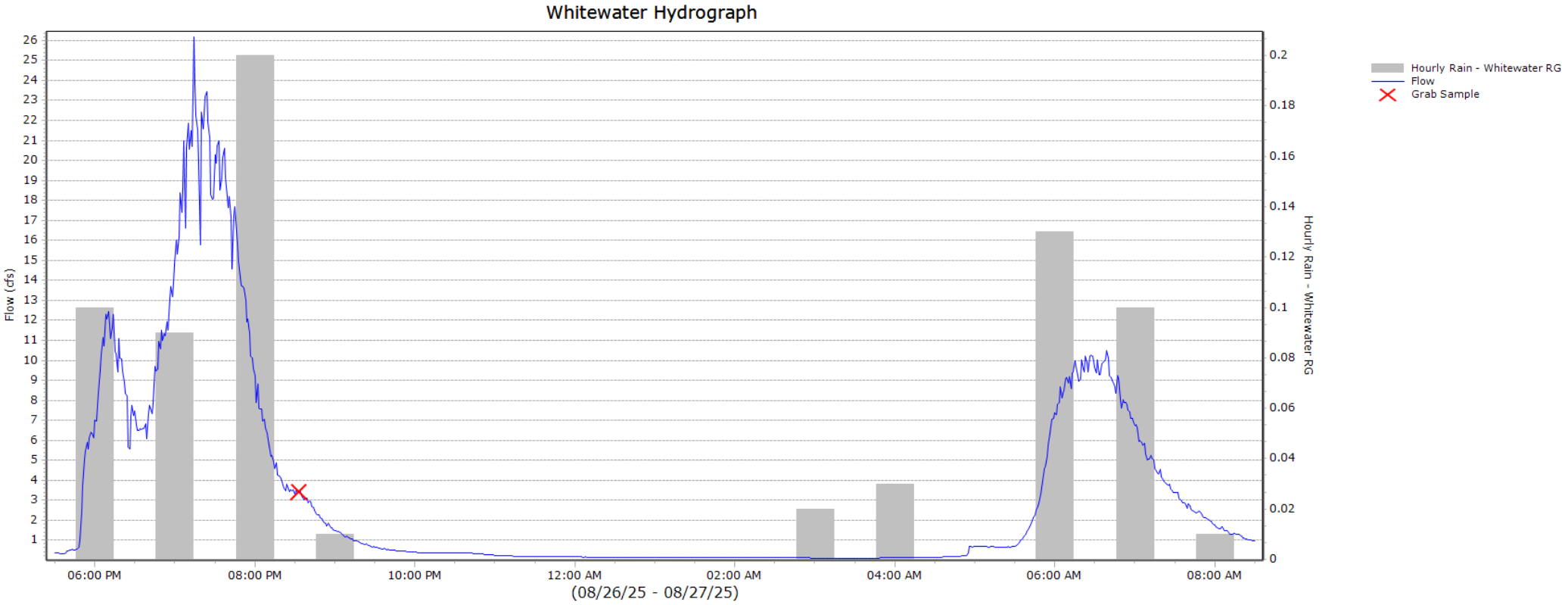
Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

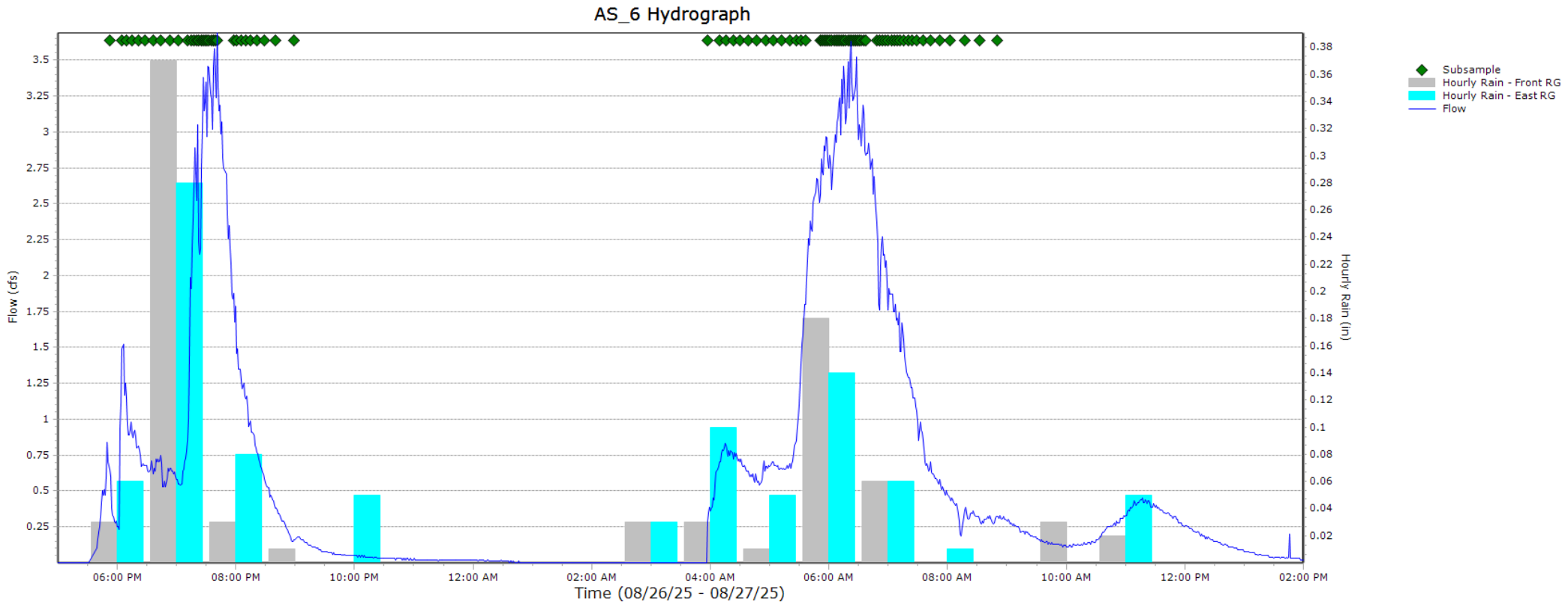
Where volume ($ft^3$) is the measured discharge, precip (ft) is the measured amount from local rain guage, and area ($ft^2$) is the watershed area.

Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

# Attachment B: Storm Event Hydrographs


Lucky Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (08/26/25 - 08/27/25)
10:00 PM
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
Subsample
Hourly Rain - Cynthia Mann RG
Flow


Whitewater Hydrograph
Flow (cfs)
Hourly Rain - Whitewater RG
Hourly Rain - Whitewater RG
Flow
Grab Sample
06:00 PM
08:00 PM
10:00 PM
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
(08/26/25 - 08/27/25)


AS_6 Hydrograph
Flow (cfs)
Hourly Rain (in)
Time (08/26/25 - 08/27/25)
Subsample
Hourly Rain - Front RG
Hourly Rain - East RG
Flow
06:00 PM
08:00 PM
10:00 PM
12:00 AM
02:00 AM
04:00 AM
06:00 AM
08:00 AM
10:00 AM
12:00 PM
02:00 PM

# Attachment C: Field Forms

# Grab Sample Data Form

**STATION:** Whitewater

**Personnel:** ST, KS **Date/Time On-Site:** 8/26/25 2030

| Flow Meter Current Status | | | | | |
|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Rainfall (in) (Whitewater Only) |
| 2033 | 10.54 | 3.46 | 1.36 | - | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | 250826-11 -WG | 8/26/25 | 2033 | ☒ |
| Field Duplicate *E.Coli* | 250826-11 -101 | 8/26/25 | 2037 | ☒ |
| Field Blank *E.Coli* | 250826-11 -001 | 8/26/25 | 2041 | ☒ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| MP14 | 2043 | 23.67 | 6.537 | 6.513 | 112.4 |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

**Date/Time Off-Site:** 8/26/25 20:47

ST Set Up/ Shut Down Form – HACH (Lucky, [redacted] AS_6)

**STATION:** ~~Stevens~~ Lucky

**SET UP**

**Personnel:** ST, KJ

**Date/Time On-Site:** 8/26/25 11:55

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 12:01 | 1.29 | 2.78 gpm | 0.08 | 13.4 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 2.29" |
| **Deadband:** | 1 |
| **Trigger Volume:** | 3950 gpm |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:** Changed sampler desiccant.

**Date/Time Off-Site:** 8/26/25 12:15

**SHUT DOWN**

**Personnel:** ST

**Date/Time On-Site:** 8/28/25 15:42

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 1600 | 1.40 | 3.64 gpm | 0.10 | – | 12.5 |
| **Downloaded to:** | | Stevens USB | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| [x] Halt program on flowmeter | ☐ Replace flowmeter battery |
| [x] Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| [x] Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

**Date/Time Off-Site:** 8/28/25 16:05

# Composite Sample Collection

**STATION:** Lucky
**Personnel:** KJ, ST
**Date/Time On-Site:** 8/27/25 0423 **Bottle** 1 **of** 2

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250826-03 -WC |
| **Approx Sample Volume (mL):** | 14000mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26 2159 | Success | 13 | 2239 | Success |
| 2 | 2203 | | 14 | 2242 | |
| 3 | 2206 | | 15 | 2245 | |
| 4 | 2209 | | 16 | 2248 | |
| 5 | 2212 | | 17 | 2251 | |
| 6 | 2215 | | 18 | 2255 | |
| 7 | 2218 | | 19 | 2259 | |
| 8 | 2222 | | 20 | 2304 | |
| 9 | 2226 | | 21 | 2310 | |
| 10 | 2230 | | 22 | 2318 | |
| 11 | 2233 | | 23 | 2330 | |
| 12 | 2236 | | 24 | 2356 | |

**Comments:**

**Date/Time Off-Site:** 8/27/25 0435

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 8/27/25 0430 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Lucky
**Personnel:** KJ, ST

**Bottle** 2 **of** 2
**Date/Time On-Site:** 8/27/25 0926

| | | | |
|---|---|---|---|
| ☒ Halt sampler program | | | |
| ☒ Put lid on sample bottle; label sample bottle | | | |
| **Sample ID:** | 250826-03 | -WC | |
| **Approx Sample Volume (mL):** | 11750ml | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | | |
| **QA/QC Sample ID:** | | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/27/250551 | Success | 13 | 8/27/25 0634 | Success |
| 2 | 0557 | | 14 | 0639 | |
| 3 | 0601 | | 15 | 0645 | |
| 4 | 0605 | | 16 | 0653 | |
| 5 | 0608 | | 17 | 0703 | |
| 6 | 0611 | | 18 | 0716 | |
| 7 | 0614 | | 19 | 0735 | |
| 8 | 0617 | | 20 | 0811 | |
| 9 | 0620 | | 21 | | |
| 10 | 0623 | | 22 | | |
| 11 | 0626 | | 23 | | |
| 12 | 0630 | | 24 | | |

**Comments:**

**Date/Time Off-Site:** 8/27/25

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **,7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**STATION:** Whitewater

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 8/26/25 12:35

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 12:48 | 5.21 | 1.63 | 1.65 | — |
| | | | | |
| | | | | |
| **Enable Condition:** | 6.3" | | | |
| **Hysteresis:** | 1.0 | | | |
| **Flow Pulse Interval:** | 1093 | | | |

**On-Site**
- [x] Replace flowmeter battery, install sampler battery
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Set sampler program parameters
- [x] Check date/time on sampler
- [x] Verify all cable and tubing connections
- [x] Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- [x] Direct or Remote; Date/time 8/26 12:49
- [x] Retrieve data and review recent flow history
- [x] Change Wireless Power Control to Storm Event
- [x] Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: On Trigger, and set Sampler Enable equation
- [x] Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 8/26/25 12:57.

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 8/28/25 15.20

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1326 | 1.54 | 0.14 | 0.83 | — |
| **Downloaded to:** | Stevens Laptop | | | |
| | | | | |

**On-Site**
- [x] Replace flowmeter battery
- [ ] Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- [x] Direct or Remote; Date/time 8/28/25 10:25
- [x] Retrieve data
- [x] Change Wireless Power Control to Dry Weather
- [x] Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- [x] Enable Sampler: Never

**Comments:** No composite bottles submitted to the lab.

**Date/Time Off-Site:** 8/28/25 15:29

Revised 240821 ST

**STATION:** Whitewater
**Personnel:** ST, LS

**Bottle** 1 **of** —
**Date/Time On-Site:** 8/26/25 2004

| | | | |
|---|---|---|---|
| ☒ Halt sampler program | | | |
| ☒ Put lid on sample bottle; label sample bottle | | | |
| **Sample ID:** | 250826-11 | -WC | |
| **Approx Sample Volume (mL):** | | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black | | |
| **QA/QC Sample ID:** | ~~17,750~~ ST | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26/25 1752 | Success | 13 | 8/26/25 1816 | 1 |
| 2 | 1755 | Success | 14 | 1818 | Success |
| 3 | 1758 | | 15 | 1820 | |
| 4 | 1801 | | 16 | 1822 | |
| 5 | 1803 | | 17 | 1824 | |
| 6 | 1805 | | 18 | 1827 | |
| 7 | 1807 | | 19 | 1829 | |
| 8 | 1809 | | 20 | 1832 | |
| 9 | 1810 | | 21 | 1835 | |
| 10 | 1819 | | 22 | 1837 | |
| 11 | 1813 | | 23 | 1840 | No more liquid |
| 12 | 1814 | No more liquid | 24 | 1842 | 1 |

**Comments:**

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

12.5in

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 2 **of** –

**Personnel:** ST, KJ **Date/Time On-Site:** _____

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | -WC |
| **Approx Sample Volume (mL):** | |
| **Clarity (ex. Clear, Cloudy, Silty):** | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26 2014 | No liq detected | 13 | 8/27 556 | No more liquid |
| 2 | 2018 | ↓ | 14 | 559 | ↓ |
| 3 | 2023 | No more liquid | 15 | 601 | No liquid detec |
| 4 | 2028 | ↓ | 16 | 603 | ↓ |
| 5 | 2033 | ↓ | 17 | 605 | No more liquid |
| 6 | 2039 | No liquid detected | 18 | 608 | No liquid detected |
| 7 | 2045 | No more liquid | 19 | 610 | ↓ |
| 8 | 2054 | ↓ | 20 | 612 | ↓ |
| 9 | 2107 | ↓ | 21 | 614 | ↓ |
| 10 | 8/27 0541 | Success | 22 | 615 | ↓ |
| 11 | 0548 | ↓ | 23 | 617 | ↓ |
| 12 | 0553 | No more liquid | 24 | 619 | ↓ |

**Comments:** No more liquid + no liquid detected sampler messages comprised of more than half of this composite bottle. Attempted to troubleshoot liquid detect sensor, with no success. Composite samples were not submitted to the lab.

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**STATION:** Americana

## SET UP

**Personnel:** ST, KT

**Date/Time On-Site:** 8/26/25 1310

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1314 | 6.65 | 1.46 | 1.773 | 12.31 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 6.8" |
| **Hysteresis:** | 1.0 |
| **Flow Pulse Interval:** | 1036 cf |

**On-Site**

- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☐ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time 8/26 1320
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

**Date/Time Off-Site:** 8/26/25 1330

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 8/28/25 14:15

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1421 | 9.13 | 1.43 | 0.670 | 12.17 |
| | **Downloaded to:** | Laptop | | |
| | | | | |

**On-Site**

- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 8/28/25 10:03
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 14:29 8/28/25

**STATION:** Americana
**Personnel:** ST. KS

**Bottle** 1 **of** —
**Date/Time On-Site:** 8/26 19:25

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | -WC |
| **Approx Sample Volume (mL):** | |
| **Clarity (ex. Clear, Cloudy, Silty):** | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26 1354 | Success | 13 | 8/26 1803 | Success |
| 2 | 1417 | | 14 | 1809 | |
| 3 | 1440 | | 15 | 1818 | |
| 4 | 1503 | | 16 | 1828 | |
| 5 | 1526 | | 17 | 1835 | |
| 6 | 1551 | | 18 | 1840 | |
| 7 | 1616 | | 19 | 1846 | |
| 8 | 1642 | | 20 | 1851 | |
| 9 | 1708 | | 21 | 1856 | |
| 10 | 1736 | | 22 | 1859 | |
| 11 | 1752 | | 23 | 1902 | |
| 12 | 1757 | | 24 | 1904 | |

**Comments:** 9+ Subsamples comprised of pre-Storm dry weather ~~Samples~~ flow. 1ST Composite bottle not submitted to the lab

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☐ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – HACH (Lucky, [redacted] AS_6)

**STATION:** AS_6

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 8/26/25 13:45

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 13:48 | 0.00 | 0.00 | 0.00 | 12.8 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition or Velocity Cutoff:** | 1.00 |
| **Deadband:** | 1.0 |
| **Trigger Volume:** | 2252 gpm |

- [x] Install batteries on flowmeter and sampler
- [x] Perform decon. cycle
- [x] Install 15L sample bottle, with ice
- [x] Leave bottle lid at site, in a clean re-sealable plastic bag
- [x] Verify all cable and tubing connections
- [x] Check date and time on flowmeter and sampler
- [x] Set flowmeter program and sampler program parameters
- [x] Set logging interval to 1 minute
- [x] Start flowmeter program and sampler program
- [x] Verify running

**Comments:**

**Date/Time Off-Site:** 8/26/25 13:59

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 8/28/25 15:00

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| 15:05 | -0.02 | 0.00 | 0.00 | - | 12.3 |
| | | **Downloaded to:** | Stevens USB | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| [x] Halt program on flowmeter | ☐ Replace flowmeter battery |
| [x] Download flowmeter data | ☐ Reset logging interval to 15 minutes |
| [x] Remove flowmeter battery | ☐ Change velocity cutoff to 0.02 fps |
| | ☐ Start program |
| | ☐ Verify running |

**Comments:**

**Date/Time Off-Site:** 8/28/25 15:10

# Composite Sample Collection

**STATION:** AS-6 **Bottle** 1 **of** 4

**Personnel:** KJ, ST **Date/Time On-Site:** 8/26/25 1946

| | |
|---|---|
| ☑ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250826-206 -WC |
| **Approx Sample Volume (mL):** | 1400ml |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26/25 1752 | Success | 13 | 8/26/25 1918 | Success |
| 2 | 1805 | | 14 | 1920 | |
| 3 | 1809 | | 15 | 1922 | |
| 4 | 1815 | | 16 | 1925 | |
| 5 | 1821 | | 17 | 1927 | |
| 6 | 1828 | | 18 | 1929 | |
| 7 | 1836 | | 19 | 1931 | |
| 8 | 1844 | | 20 | 1933 | |
| 9 | 1853 | | 21 | 1935 | |
| 10 | 1902 | | 22 | 1937 | |
| 11 | 1911 | | 23 | 1939 | |
| 12 | 1915 | | 24 | 1941 | |

**Comments:**

**Date/Time Off-Site:** 8/26/25 1955

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle, add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 8/26/25 19:55 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS-6 **Bottle** 2 **of** 4

**Personnel:** KJ, ST **Date/Time On-Site:** 8/27/25 0513

| | | | |
|---|---|---|---|
| ☒ Halt sampler program | | | |
| ☒ Put lid on sample bottle; label sample bottle | | | |
| **Sample ID:** | 250826-206 | -WC | |
| **Approx Sample Volume (mL):** | 13250 mL | | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | | |
| **QA/QC Sample ID:** | | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/26/25 1958 | Success | 13 | 8/27/25 0416 | Success |
| 2 | 2001 | | 14 | 0423 | |
| 3 | 2005 | | 15 | 0430 | |
| 4 | 2010 | | 16 | 0438 | |
| 5 | 2015 | | 17 | 0447 | |
| 6 | 2021 | | 18 | 0456 | |
| 7 | 2029 | | 19 | 0504 | |
| 8 | 2040 | | 20 | 0512 | |
| 9 | 2059 | | 21 | 0520 | |
| 10 | 2147 | Rinse Error | 22 | 0527 | |
| 11 | 8/27/25 0357 | Success | 23 | 0532 | |
| 12 | 0409 | | 24 | 0536 | |

**Comments:**

**Date/Time Off-Site:** 8/27/25 0549

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 8/27/25 0545 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Composite Sample Collection

**STATION:** ~~Lucky~~ AS-6 **Bottle** 3 **of** 4

**Personnel:** KS, ST **Date/Time On-Site:** 8/27/25 0635

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250826-206 -WC |
| **Approx Sample Volume (mL):** | 14750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/27/25 0551 | Success | 13 | 8/27/25 0615 | Success |
| 2 | 0553 | | 14 | 0617 | |
| 3 | 0555 | | 15 | 0619 | |
| 4 | 0557 | | 16 | 0621 | |
| 5 | 0559 | | 17 | 0623 | |
| 6 | 0601 | | 18 | 0625 | |
| 7 | 0603 | | 19 | 0627 | |
| 8 | 0605 | | 20 | 0629 | |
| 9 | 0607 | | 21 | 0631 | |
| 10 | 0609 | | 22 | 0633 | |
| 11 | 0611 | | 23 | 0635 | |
| 12 | 0613 | | 24 | 0637 | |

**Comments:**

**Date/Time Off-Site:** 8/27/25 0646

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 8/27/25 0641 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** AS-6 **Bottle** 4 **of** 4

**Personnel:** KJ, ST **Date/Time On-Site:** 8/27/25 0840

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250827-206 -WC |
| **Approx Sample Volume (mL):** | 11750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 8/27/25 0648 | Success | 13 | 8/27/25 0729 | Success |
| 2 | 0651 | | 14 | 0735 | |
| 3 | 0654 | | 15 | 0743 | |
| 4 | 0657 | | 16 | 0752 | |
| 5 | 0700 | | 17 | 0802 | |
| 6 | 0703 | | 18 | 0817 | |
| 7 | 0706 | | 19 | 0832 | |
| 8 | 0709 | | 20 | 0850 | |
| 9 | 0712 | | 21 | | |
| 10 | 0716 | | 22 | | |
| 11 | 0720 | | 23 | | |
| 12 | 0724 | | 24 | | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00431-01 | ACST1B | 250826-11-WG | Water | | 8/26/25 20:33 | 8/27/25 6:40 |
| AC00431-02 | ACST1B | 250826-11-101 | Water | | 8/26/25 12:00 | 8/27/25 6:40 |
| AC00431-03 | ACST1B | 250826-11-001 | Water | | 8/26/25 12:00 | 8/27/25 6:40 |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250826-11-WG |
| Date/Time Collected: | 08/26/2025 20:33 | | |
| Lab Number: | AC00431-01 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B252752 | 4710 | MPN/100 mL | 100 | 1.0 | IDEXX - Colilert | 08/27/25 07:25 | 8/28/25 8:14 | A.T | H D |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B252754 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 08/27/25 | 8/27/25 7:08 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250826-11-101 |
| Date/Time Collected: | 08/26/2025 12:00 | | |
| Lab Number: | AC00431-02 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B252752 | 4710 | MPN/100 mL | 100 | 1.0 | IDEXX - Colilert | 08/27/25 07:25 | 8/28/25 8:14 | A.T | H D |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B252754 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 08/27/25 | 8/27/25 7:08 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1B | Location Description: | 250826-11-001 |
| Date/Time Collected: | 08/26/2025 12:00 | | |
| Lab Number: | AC00431-03 | Sample Collector: | S.T |
| Sample Type: | Grab | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | | |
| E. Coli | B252752 | <1.0 | MPN/100 mL | 1.0 | 1.0 | IDEXX - Colilert | 08/27/25 07:25 | 8/28/25 8:14 | A.T | H U |
| **Wet Chemistry** | | | | | | | | | | |
| Chlorine Screen | B252754 | Absent | mg/L | | | SM 4500-CL G-2000 mod | 08/27/25 | 8/27/25 7:08 | ASE | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Microbiology** | | | | | | | | | |
| **Batch: B252752** | | | | | | | | | |
| **Blank (B252752-BLK1)** | | | | | | | | | |
| E. Coli | Absent | | | | | | 08/28/2025 | A.T | |
| **LCS (B252752-BS1)** | | | | | | | | | |
| E. Coli | | | | Present | | | 08/28/2025 | A.T | |
| **Duplicate (B252752-DUP1)** | Source ID: WB03946-10 | | | | | | | | |
| E. Coli | | | | | Pass | 128 | 08/28/2025 | A.T | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/02/2025 13:13

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| H | Hold time Exceeded. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

# Ada County Highway District

ACHD

Attn: Steven Turner
5775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284

**Purchase Order: 63069586**
**Project: Stormwater PI**
Sampler(s): Steven Turner
Kristin Jolliffe

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | Analysis Methods | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C00431-01 | 8/26/25 | | 2033 | | 250826-11-WG | ~~KJ~~ ST | X | X | | E. Coli - IDEXX Colilert | 1 |
| -02 | | | 1200 | | 250826-11-101 | ST ~~KJ~~ | X | X | | E. Coli - IDEXX Colilert | 1 |
| -03 | | | 1200 | | 250826-11-001 | ST | X | X | | E. Coli - IDEXX Colilert | 1 |

Analysis Methods: $BOD_5$ - SM 5210 B; COD - Hach 8000; TSS - SM 2540 D; TDS - SM 2540 C; TKN - EPA 351.2; TP - EPA 200.7; Orthophosphate - EPA 365.1; Total As, Cd, Pb - EPA 200.8; Diss. Cd Cu, Pb, Zn - EPA 200.8; Total Hg - EPA 245.1; E. Coli - IDEXX Colilert; Turbidity - EPA 180.1; Hardness - SM 2340 B-2011; $NO_3+NO_2$ - EPA 353.2; Timberline Ammonia-001; Chloride - EPA 300.0

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristin Jolliffe | 8/26/25 ~~10~~ 2223 | NTS 8/27/25 0640 | |



AC00431

Report Date: 09/29/2025 09:23

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00433-01 | ACST1C | 250826-03-WC | Water | | 8/27/25 8:11 | 8/27/25 10:05 |

***Comments:***

Temperature at receipt, 2 containers: 8.9 and 10.1 degrees C

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/29/2025 09:23

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250826-03-WC |
| Date/Time Collected: | 08/26/2025 21:59 - 08/27/2025 08:11 | | |
| Lab Number: | AC00433-01 | Sample Collector: | S.T |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B252793 | 2.11 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 09/02/25 | 9/2/25 14:29 | RCJ | |
| BOD5 | B252768 | 56.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 08/28/25 | 9/2/25 9:22 | A.T | |
| Chloride | B252993 | 2.58 | mg/L | 0.500 | 0.500 | EPA 300.0, Rev. 2.1 (1993) | 09/17/25 | 9/17/25 14:11 | RHC | |
| COD | B252760 | 244 | mg/L | 7.00 | 7.00 | *** DEFAULT SPECIFIC METHOD *** | 08/27/25 | 8/27/25 13:17 | ALN | |
| Nitrate-Nitrite, as N | B252757 | 0.902 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 11:56 | JAL | |
| TKN | B252765 | 4.78 | mg/L | 0.250 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 08/28/25 | 8/28/25 16:24 | JAL | D |
| Total Dissolved Solids | B252794 | 120 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 08/28/25 | 9/4/25 7:27 | NTS | |
| Total Suspended Solids | B252750 | 131 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 08/27/25 | 8/27/25 12:48 | RCJ | |
| Turbidity | B252758 | 61.3 | NTU | 0.6 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 11:29 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B252764 | 0.519 | mg/L | 0.0150 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 14:05 | ALM | D |
| **Total Metals** | | | | | | | | | | |
| Mercury | B252828 | 0.0203 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 09/04/25 | 9/4/25 12:42 | SAS | |
| Arsenic | B252857 | 3.7 | ug/L | 0.050 | 0.050 | EPA 200.8 | 09/05/25 | 9/6/25 14:14 | DMW | |
| Cadmium | B252857 | 0.12 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/05/25 | 9/6/25 14:14 | DMW | |
| Calcium | B252796 | 10.4 | mg/L | 0.0500 | 0.0500 | EPA 200.7 | 09/02/25 | 9/3/25 13:38 | SMC | |
| Lead | B252857 | 3.8 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/05/25 | 9/6/25 14:14 | DMW | |
| Magnesium | B252796 | 1930 | ug/L | 40.0 | 40.0 | EPA 200.7 | 09/02/25 | 9/3/25 13:38 | SMC | |
| Phosphorus as P | B252796 | 0.992 | mg/L | 0.0110 | 0.0110 | EPA 200.7 | 09/02/25 | 9/3/25 13:38 | SMC | |
| Hardness | B252796 | 33.9 | mg/L | 0.125 | 0.125 | SM 2340 B-2011 | 09/02/25 | 9/3/25 13:38 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B252844 | 0.019 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/04/25 | 9/4/25 14:25 | DMW | |
| Copper | B252844 | 7.3 | ug/L | 0.14 | 0.14 | EPA 200.8 | 09/04/25 | 9/4/25 14:25 | DMW | |
| Lead | B252844 | 0.15 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 09/04/25 | 9/4/25 14:25 | DMW | |
| Zinc | B252844 | 95.8 | ug/L | 0.50 | 0.50 | EPA 200.8 | 09/04/25 | 9/4/25 14:25 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/29/2025 09:23

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B252750** | | | | | | | | | |
| **Blank (B252750-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 08/27/2025 | RCJ | U |
| **LCS (B252750-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 101 | 90-110 | | | 08/27/2025 | RCJ | |
| **Duplicate (B252750-DUP1)** Source ID: WB03946-06 | | | | | | | | | |
| Total Suspended Solids | | | | | 5.98 | 20 | 08/27/2025 | RCJ | |
| **Batch: B252757** | | | | | | | | | |
| **Blank (B252757-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 08/27/2025 | JAL | U |
| **LCS (B252757-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 08/27/2025 | JAL | |
| **Duplicate (B252757-DUP1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | NR | 10 | 08/27/2025 | JAL | U |
| **Duplicate (B252757-DUP2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.393 | 10 | 08/27/2025 | JAL | |
| **Matrix Spike (B252757-MS1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 08/27/2025 | JAL | |
| **Matrix Spike (B252757-MS2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.0 | 90-110 | | | 08/27/2025 | JAL | |
| **Matrix Spike Dup (B252757-MSD1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 101 | 90-110 | 1.03 | 10 | 08/27/2025 | JAL | |
| **Matrix Spike Dup (B252757-MSD2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.7 | 90-110 | 0.247 | 10 | 08/27/2025 | JAL | |
| **Batch: B252758** | | | | | | | | | |
| **Blank (B252758-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 08/27/2025 | ASE | U |
| **LCS (B252758-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 08/27/2025 | ASE | |
| **Duplicate (B252758-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Turbidity | | | | | 0.217 | 25 | 08/27/2025 | ASE | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252760** | | | | | | | | | |
| **Blank (B252760-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 08/27/2025 | ALN | U |
| **LCS (B252760-BS1)** | | | | | | | | | |
| COD | | | 99.7 | 90-110 | | | 08/27/2025 | ALN | |
| **Duplicate (B252760-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| COD | | | | | 2.07 | 10 | 08/27/2025 | ALN | |
| **Batch: B252765** | | | | | | | | | |
| **Blank (B252765-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 08/28/2025 | JAL | U |
| **LCS (B252765-BS1)** | | | | | | | | | |
| TKN | | | 98.7 | 80-120 | | | 08/28/2025 | JAL | |
| **Duplicate (B252765-DUP1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | | | 4.19 | 20 | 08/28/2025 | JAL | D |
| **Duplicate (B252765-DUP2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | | | 5.78 | 20 | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | 109 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS3)** Source ID: EP00494-01 | | | | | | | | | |
| TKN | | | 96.0 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS4)** Source ID: EP00494-02 | | | | | | | | | |
| TKN | | | 106 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike Dup (B252765-MSD1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | 95.7 | 80-120 | 5.68 | 20 | 08/28/2025 | JAL | D |
| **Matrix Spike Dup (B252765-MSD2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | 85.3 | 80-120 | 6.11 | 20 | 08/28/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252768** | | | | | | | | | |
| **Blank (B252768-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 09/02/2025 | A.T | Seed-01, U |
| **LCS (B252768-BS2)** | | | | | | | | | |
| BOD5 | | | 93.6 | 84.6-115.4 | | | 09/02/2025 | A.T | |
| **Duplicate (B252768-DUP1)** Source ID: BB05004-02 | | | | | | | | | |
| BOD5 | | | | | 1.74 | 30 | 09/02/2025 | A.T | D |
| **Batch: B252793** | | | | | | | | | |
| **Blank (B252793-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 09/02/2025 | RCJ | U |
| **Blank (B252793-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 09/02/2025 | RCJ | U |
| **LCS (B252793-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 102 | 90-110 | | | 09/02/2025 | RCJ | |
| **LCS (B252793-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 105 | 90-110 | | | 09/02/2025 | RCJ | |
| **Duplicate (B252793-DUP1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | | | 2.32 | 20 | 09/02/2025 | RCJ | D |
| **Duplicate (B252793-DUP2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | | | 0.894 | 20 | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS3)** Source ID: EP00495-02 | | | | | | | | | |
| Ammonia, as N | | | 94.9 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS4)** Source ID: EP00495-01 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike (B252793-MS5)** Source ID: EP00494-01 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike (B252793-MS6)** Source ID: EP00494-02 | | | | | | | | | |
| Ammonia, as N | | | 110 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike Dup (B252793-MSD1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | 102 | 84-115 | 0.768 | 20 | 09/02/2025 | RCJ | D |
| **Matrix Spike Dup (B252793-MSD2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | 105 | 84-115 | 1.99 | 20 | 09/02/2025 | RCJ | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252794** | | | | | | | | | |
| **Blank (B252794-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 09/04/2025 | NTS | U |
| **LCS (B252794-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 94.0 | 90-110 | | | 09/04/2025 | NTS | |
| **Duplicate (B252794-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 0.278 | 10 | 09/04/2025 | NTS | |
| **Batch: B252993** | | | | | | | | | |
| **Blank (B252993-BLK1)** | | | | | | | | | |
| Chloride | <0.5 | mg/L | | | | | 09/17/2025 | RHC | U |
| **LCS (B252993-BS1)** | | | | | | | | | |
| Chloride | | | 95.6 | 90-110 | | | 09/17/2025 | RHC | |
| **Duplicate (B252993-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | | | 0.889 | 10 | 09/17/2025 | RHC | |
| **Duplicate (B252993-DUP2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | | | 1.22 | 10 | 09/17/2025 | RHC | D |
| **Duplicate (B252993-DUP3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | | | 0.794 | 10 | 09/18/2025 | RHC | D |
| **Matrix Spike (B252993-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | 94.3 | 90-110 | | | 09/17/2025 | RHC | |
| **Matrix Spike (B252993-MS2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | 98.9 | 90-110 | | | 09/18/2025 | RHC | D |
| **Matrix Spike (B252993-MS3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | 95.7 | 90-110 | | | 09/18/2025 | RHC | D |
| **Matrix Spike Dup (B252993-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | 94.7 | 90-110 | 0.359 | 10 | 09/17/2025 | RHC | |
| **Matrix Spike Dup (B252993-MSD2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | 96.7 | 90-110 | 1.82 | 10 | 09/17/2025 | RHC | D |
| **Matrix Spike Dup (B252993-MSD3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | 96.6 | 90-110 | 0.831 | 10 | 09/18/2025 | RHC | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B252764** | | | | | | | | | |
| **Blank (B252764-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 08/27/2025 | ALM | U |
| **LCS (B252764-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 97.5 | 90-110 | | | 08/27/2025 | ALM | |
| **Duplicate (B252764-DUP2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0624 | 10 | 08/27/2025 | ALM | D |
| **Duplicate (B252764-DUP3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.335 | 10 | 08/27/2025 | ALM | D |
| **Matrix Spike (B252764-MS2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | 99.1 | 90-110 | | | 08/27/2025 | ALM | D |
| **Matrix Spike (B252764-MS3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | 102 | 90-110 | | | 08/27/2025 | ALM | D |
| **Matrix Spike Dup (B252764-MSD2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.771 | 10 | 08/27/2025 | ALM | D |
| **Matrix Spike Dup (B252764-MSD3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | 103 | 90-110 | 0.279 | 10 | 08/27/2025 | ALM | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B252796** | | | | | | | | | |
| **Blank (B252796-BLK1)** | | | | | | | | | |
| Calcium | <0.05 | mg/L | | | | | 09/03/2025 | SMC | U |
| Magnesium | <40 | ug/L | | | | | 09/03/2025 | SMC | U |
| Phosphorus as P | <0.011 | mg/L | | | | | 09/03/2025 | SMC | U |
| **LCS (B252796-BS1)** | | | | | | | | | |
| Calcium | | | 99.7 | 85-115 | | | 09/03/2025 | SMC | |
| Magnesium | | | 98.7 | 85-115 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 104 | 85-115 | | | 09/03/2025 | SMC | |
| **Duplicate (B252796-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | | | 0.611 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | | | 2.62 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | | | 0.974 | 20 | 09/03/2025 | SMC | |
| **Duplicate (B252796-DUP2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | | | 0.507 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | | | 0.674 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | | | 2.74 | 20 | 09/03/2025 | SMC | |
| **Matrix Spike (B252796-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | | | 09/03/2025 | SMC | |
| Magnesium | | | 99.1 | 70-130 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 107 | 70-130 | | | 09/03/2025 | SMC | |
| **Matrix Spike (B252796-MS2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | | | 09/03/2025 | SMC | |
| Magnesium | | | 99.2 | 70-130 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | | | 09/03/2025 | SMC | |
| **Matrix Spike Dup (B252796-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | 99.1 | 70-130 | 0.702 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | 98.0 | 70-130 | 1.03 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | 0.996 | 20 | 09/03/2025 | SMC | |
| **Matrix Spike Dup (B252796-MSD2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | 0.764 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 1.31 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | 108 | 70-130 | 0.932 | 20 | 09/03/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B252828** | | | | | | | | | |
| **Blank (B252828-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 09/04/2025 | SAS | U |
| **Blank (B252828-BLK2)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 09/04/2025 | SAS | U |
| **LCS (B252828-BS1)** | | | | | | | | | |
| Mercury | | | 98.2 | 85-115 | | | 09/04/2025 | SAS | |
| **Duplicate (B252828-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | | | 3.21 | 20 | 09/04/2025 | SAS | |
| **Duplicate (B252828-DUP2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 09/04/2025 | SAS | |
| **Matrix Spike (B252828-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | 98.4 | 70-130 | | | 09/04/2025 | SAS | |
| **Matrix Spike (B252828-MS2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | 114 | 70-130 | | | 09/04/2025 | SAS | |
| **Matrix Spike Dup (B252828-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | 98.9 | 70-130 | 0.370 | 20 | 09/04/2025 | SAS | |
| **Matrix Spike Dup (B252828-MSD2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | 108 | 70-130 | 5.40 | 20 | 09/04/2025 | SAS | |
| **Batch: B252857** | | | | | | | | | |
| **Blank (B252857-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 09/06/2025 | DMW | U |
| Cadmium | <0.010 | ug/L | | | | | 09/06/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 09/06/2025 | DMW | U |
| **LCS (B252857-BS1)** | | | | | | | | | |
| Arsenic | | | 99.2 | 85-115 | | | 09/06/2025 | DMW | |
| Cadmium | | | 98.7 | 85-115 | | | 09/06/2025 | DMW | |
| Lead | | | 101 | 85-115 | | | 09/06/2025 | DMW | |
| **Duplicate (B252857-DUP1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | | | 4.03 | 20 | 09/06/2025 | DMW | |
| Cadmium | | | | | NR | 20 | 09/06/2025 | DMW | U |
| Lead | | | | | 4.79 | 20 | 09/06/2025 | DMW | |
| **Matrix Spike (B252857-MS1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | 99.1 | 70-130 | | | 09/06/2025 | DMW | |
| Cadmium | | | 97.9 | 70-130 | | | 09/06/2025 | DMW | |
| Lead | | | 99.6 | 70-130 | | | 09/06/2025 | DMW | |
| **Matrix Spike Dup (B252857-MSD1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | 99.3 | 70-130 | 0.193 | 20 | 09/06/2025 | DMW | |
| Cadmium | | | 98.1 | 70-130 | 0.216 | 20 | 09/06/2025 | DMW | |
| Lead | | | 99.7 | 70-130 | 0.0854 | 20 | 09/06/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B252844** | | | | | | | | | |
| **Blank (B252844-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 09/04/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 09/04/2025 | DMW | U |
| Lead | <0.0050 | ug/L | | | | | 09/04/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 09/04/2025 | DMW | U |
| **LCS (B252844-BS1)** | | | | | | | | | |
| Cadmium | | | 96.2 | 85-115 | | | 09/04/2025 | DMW | |
| Copper | | | 97.2 | 85-115 | | | 09/04/2025 | DMW | |
| Lead | | | 93.6 | 85-115 | | | 09/04/2025 | DMW | |
| Zinc | | | 98.0 | 85-115 | | | 09/04/2025 | DMW | |
| **Duplicate (B252844-DUP1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 09/04/2025 | DMW | U |
| Copper | | | | | 6.41 | 10 | 09/04/2025 | DMW | |
| Lead | | | | | 6.47 | 10 | 09/04/2025 | DMW | |
| Zinc | | | | | NR | 10 | 09/04/2025 | DMW | U |
| **Matrix Spike (B252844-MS1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | 93.4 | 70-130 | | | 09/04/2025 | DMW | |
| Copper | | | 94.0 | 70-130 | | | 09/04/2025 | DMW | |
| Lead | | | 89.9 | 70-130 | | | 09/04/2025 | DMW | |
| Zinc | | | 97.7 | 70-130 | | | 09/04/2025 | DMW | |
| **Matrix Spike Dup (B252844-MSD1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | 92.4 | 70-130 | 1.13 | 10 | 09/04/2025 | DMW | |
| Copper | | | 92.0 | 70-130 | 2.13 | 10 | 09/04/2025 | DMW | |
| Lead | | | 88.5 | 70-130 | 1.54 | 10 | 09/04/2025 | DMW | |
| Zinc | | | 95.1 | 70-130 | 2.66 | 10 | 09/04/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/29/2025 09:23

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| Seed-01 | The seed depletion is greater than that recommended by the method. The LCS is acceptable showing the seed supports the method. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284
**Purchase Order: 63069586**
**Project: Stormwater PI**
Sampler(s): Kristin Jolliffe
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Water | Grab | Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | $NO_3$+$NO_2$ - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00433-01 | 8/26/25 | 8/27/25 | ~~2159~~ 2112 | 0811 | 250826-03-WC | SJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristin Jolliffe | 8/27/25 1003 | [signature] 8/27/25 | 1005 |

COC_WQL-PI

AC00433

241010 ST

AC00433

Report Date: 09/29/2025 09:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00434-01 | ACST1C | 250826-206-WC | Water | | 8/27/25 8:50 | 8/27/25 10:05 |

***Comments:***

Temperature at receipt, 4 containers: 7.0, 8.7, 12.3, and 15.3 degrees C

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/29/2025 09:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250826-206-WC |
| Date/Time Collected: | 08/26/2025 17:52 - 08/27/2025 08:50 | | |
| Lab Number: | AC00434-01 | Sample Collector: | S.T |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B252793 | 2.26 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 09/02/25 | 9/2/25 14:32 | RCJ | |
| BOD5 | B252768 | 311 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 08/28/25 | 9/2/25 9:02 | A.T | |
| Chloride | B252993 | 6.92 | mg/L | 0.500 | 0.500 | EPA 300.0, Rev. 2.1 (1993) | 09/17/25 | 9/17/25 15:51 | RHC | |
| COD | B252760 | 773 | mg/L | 7.00 | 7.00 | *** DEFAULT SPECIFIC METHOD *** | 08/27/25 | 8/27/25 13:17 | ALN | |
| Nitrate-Nitrite, as N | B252757 | 0.922 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 11:57 | JAL | |
| TKN | B252765 | 11.5 | mg/L | 0.250 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 08/28/25 | 8/28/25 16:26 | JAL | D |
| Total Dissolved Solids | B252794 | 391 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 08/28/25 | 9/4/25 7:31 | NTS | |
| Total Suspended Solids | B252750 | 496 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 08/27/25 | 8/27/25 12:49 | RCJ | |
| Turbidity | B252758 | 285 | NTU | 3.0 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 11:51 | ASE | D |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B252764 | 1.33 | mg/L | 0.0300 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 08/27/25 | 8/27/25 14:10 | ALM | D |
| **Total Metals** | | | | | | | | | | |
| Mercury | B252828 | 0.0641 | ug/L | 0.0100 | 0.0100 | EPA 245.1 | 09/04/25 | 9/4/25 13:03 | SAS | |
| Arsenic | B252857 | 9.8 | ug/L | 0.050 | 0.050 | EPA 200.8 | 09/05/25 | 9/6/25 14:16 | DMW | |
| Cadmium | B252857 | 0.31 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/05/25 | 9/6/25 14:16 | DMW | |
| Calcium | B252796 | 16.4 | mg/L | 0.0500 | 0.0500 | EPA 200.7 | 09/02/25 | 9/3/25 13:54 | SMC | |
| Lead | B252857 | 20.8 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/05/25 | 9/6/25 14:16 | DMW | |
| Magnesium | B252796 | 5680 | ug/L | 40.0 | 40.0 | EPA 200.7 | 09/02/25 | 9/3/25 13:54 | SMC | |
| Phosphorus as P | B252796 | 2.60 | mg/L | 0.0110 | 0.0110 | EPA 200.7 | 09/02/25 | 9/3/25 13:54 | SMC | |
| Hardness | B252796 | 64.3 | mg/L | 0.125 | 0.125 | SM 2340 B-2011 | 09/02/25 | 9/3/25 13:54 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B252844 | 0.037 | ug/L | 0.010 | 0.010 | EPA 200.8 | 09/04/25 | 9/4/25 14:28 | DMW | |
| Copper | B252844 | 16.7 | ug/L | 0.14 | 0.14 | EPA 200.8 | 09/04/25 | 9/4/25 14:28 | DMW | |
| Lead | B252844 | 0.64 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 09/04/25 | 9/4/25 14:28 | DMW | |
| Zinc | B252844 | 108 | ug/L | 0.50 | 0.50 | EPA 200.8 | 09/04/25 | 9/4/25 14:28 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

Report Date: 09/29/2025 09:22

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B252750** | | | | | | | | | |
| **Blank (B252750-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 08/27/2025 | RCJ | U |
| **LCS (B252750-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 101 | 90-110 | | | 08/27/2025 | RCJ | |
| **Duplicate (B252750-DUP1)** Source ID: WB03946-06 | | | | | | | | | |
| Total Suspended Solids | | | | | 5.98 | 20 | 08/27/2025 | RCJ | |
| **Batch: B252757** | | | | | | | | | |
| **Blank (B252757-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 08/27/2025 | JAL | U |
| **LCS (B252757-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 08/27/2025 | JAL | |
| **Duplicate (B252757-DUP1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | NR | 10 | 08/27/2025 | JAL | U |
| **Duplicate (B252757-DUP2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.393 | 10 | 08/27/2025 | JAL | |
| **Matrix Spike (B252757-MS1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 08/27/2025 | JAL | |
| **Matrix Spike (B252757-MS2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.0 | 90-110 | | | 08/27/2025 | JAL | |
| **Matrix Spike Dup (B252757-MSD1)** Source ID: BB05003-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 101 | 90-110 | 1.03 | 10 | 08/27/2025 | JAL | |
| **Matrix Spike Dup (B252757-MSD2)** Source ID: WB03946-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.7 | 90-110 | 0.247 | 10 | 08/27/2025 | JAL | |
| **Batch: B252758** | | | | | | | | | |
| **Blank (B252758-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 08/27/2025 | ASE | U |
| **LCS (B252758-BS1)** | | | | | | | | | |
| Turbidity | | | 100 | 90-110 | | | 08/27/2025 | ASE | |
| **Duplicate (B252758-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Turbidity | | | | | 0.217 | 25 | 08/27/2025 | ASE | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252760** | | | | | | | | | |
| **Blank (B252760-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 08/27/2025 | ALN | U |
| **LCS (B252760-BS1)** | | | | | | | | | |
| COD | | | 99.7 | 90-110 | | | 08/27/2025 | ALN | |
| **Duplicate (B252760-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| COD | | | | | 2.07 | 10 | 08/27/2025 | ALN | |
| **Batch: B252765** | | | | | | | | | |
| **Blank (B252765-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 08/28/2025 | JAL | U |
| **LCS (B252765-BS1)** | | | | | | | | | |
| TKN | | | 98.7 | 80-120 | | | 08/28/2025 | JAL | |
| **Duplicate (B252765-DUP1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | | | 4.19 | 20 | 08/28/2025 | JAL | D |
| **Duplicate (B252765-DUP2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | | | 5.78 | 20 | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | 109 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | 100 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS3)** Source ID: EP00494-01 | | | | | | | | | |
| TKN | | | 96.0 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike (B252765-MS4)** Source ID: EP00494-02 | | | | | | | | | |
| TKN | | | 106 | 80-120 | | | 08/28/2025 | JAL | D |
| **Matrix Spike Dup (B252765-MSD1)** Source ID: BB04993-01 | | | | | | | | | |
| TKN | | | 95.7 | 80-120 | 5.68 | 20 | 08/28/2025 | JAL | D |
| **Matrix Spike Dup (B252765-MSD2)** Source ID: LS02460-07 | | | | | | | | | |
| TKN | | | 85.3 | 80-120 | 6.11 | 20 | 08/28/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252768** | | | | | | | | | |
| **Blank (B252768-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 09/02/2025 | A.T | Seed-01, U |
| **LCS (B252768-BS2)** | | | | | | | | | |
| BOD5 | | | 93.6 | 84.6-115.4 | | | 09/02/2025 | A.T | |
| **Duplicate (B252768-DUP1)** Source ID: BB05004-02 | | | | | | | | | |
| BOD5 | | | | | 1.74 | 30 | 09/02/2025 | A.T | D |
| **Batch: B252793** | | | | | | | | | |
| **Blank (B252793-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 09/02/2025 | RCJ | U |
| **Blank (B252793-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 09/02/2025 | RCJ | U |
| **LCS (B252793-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 102 | 90-110 | | | 09/02/2025 | RCJ | |
| **LCS (B252793-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 105 | 90-110 | | | 09/02/2025 | RCJ | |
| **Duplicate (B252793-DUP1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | | | 2.32 | 20 | 09/02/2025 | RCJ | D |
| **Duplicate (B252793-DUP2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | | | 0.894 | 20 | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS3)** Source ID: EP00495-02 | | | | | | | | | |
| Ammonia, as N | | | 94.9 | 84-115 | | | 09/02/2025 | RCJ | D |
| **Matrix Spike (B252793-MS4)** Source ID: EP00495-01 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike (B252793-MS5)** Source ID: EP00494-01 | | | | | | | | | |
| Ammonia, as N | | | 108 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike (B252793-MS6)** Source ID: EP00494-02 | | | | | | | | | |
| Ammonia, as N | | | 110 | 84-115 | | | 09/02/2025 | RCJ | |
| **Matrix Spike Dup (B252793-MSD1)** Source ID: BB04988-01 | | | | | | | | | |
| Ammonia, as N | | | 102 | 84-115 | 0.768 | 20 | 09/02/2025 | RCJ | D |
| **Matrix Spike Dup (B252793-MSD2)** Source ID: BB05004-02 | | | | | | | | | |
| Ammonia, as N | | | 105 | 84-115 | 1.99 | 20 | 09/02/2025 | RCJ | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B252794** | | | | | | | | | |
| **Blank (B252794-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 09/04/2025 | NTS | U |
| **LCS (B252794-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 94.0 | 90-110 | | | 09/04/2025 | NTS | |
| **Duplicate (B252794-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 0.278 | 10 | 09/04/2025 | NTS | |
| **Batch: B252993** | | | | | | | | | |
| **Blank (B252993-BLK1)** | | | | | | | | | |
| Chloride | <0.5 | mg/L | | | | | 09/17/2025 | RHC | U |
| **LCS (B252993-BS1)** | | | | | | | | | |
| Chloride | | | 95.6 | 90-110 | | | 09/17/2025 | RHC | |
| **Duplicate (B252993-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | | | 0.889 | 10 | 09/17/2025 | RHC | |
| **Duplicate (B252993-DUP2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | | | 1.22 | 10 | 09/17/2025 | RHC | D |
| **Duplicate (B252993-DUP3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | | | 0.794 | 10 | 09/18/2025 | RHC | D |
| **Matrix Spike (B252993-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | 94.3 | 90-110 | | | 09/17/2025 | RHC | |
| **Matrix Spike (B252993-MS2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | 98.9 | 90-110 | | | 09/18/2025 | RHC | D |
| **Matrix Spike (B252993-MS3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | 95.7 | 90-110 | | | 09/18/2025 | RHC | D |
| **Matrix Spike Dup (B252993-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Chloride | | | 94.7 | 90-110 | 0.359 | 10 | 09/17/2025 | RHC | |
| **Matrix Spike Dup (B252993-MSD2)** Source ID: BB05013-05 | | | | | | | | | |
| Chloride | | | 96.7 | 90-110 | 1.82 | 10 | 09/17/2025 | RHC | D |
| **Matrix Spike Dup (B252993-MSD3)** Source ID: BB05013-05RE1 | | | | | | | | | |
| Chloride | | | 96.6 | 90-110 | 0.831 | 10 | 09/18/2025 | RHC | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B252764** | | | | | | | | | |
| **Blank (B252764-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 08/27/2025 | ALM | U |
| **LCS (B252764-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 97.5 | 90-110 | | | 08/27/2025 | ALM | |
| **Duplicate (B252764-DUP2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.0624 | 10 | 08/27/2025 | ALM | D |
| **Duplicate (B252764-DUP3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.335 | 10 | 08/27/2025 | ALM | D |
| **Matrix Spike (B252764-MS2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | 99.1 | 90-110 | | | 08/27/2025 | ALM | D |
| **Matrix Spike (B252764-MS3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | 102 | 90-110 | | | 08/27/2025 | ALM | D |
| **Matrix Spike Dup (B252764-MSD2)** Source ID: WB03946-06 | | | | | | | | | |
| Orthophosphate, as P | | | 101 | 90-110 | 0.771 | 10 | 08/27/2025 | ALM | D |
| **Matrix Spike Dup (B252764-MSD3)** Source ID: AC00433-01RE1 | | | | | | | | | |
| Orthophosphate, as P | | | 103 | 90-110 | 0.279 | 10 | 08/27/2025 | ALM | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B252796** | | | | | | | | | |
| **Blank (B252796-BLK1)** | | | | | | | | | |
| Calcium | <0.05 | mg/L | | | | | 09/03/2025 | SMC | U |
| Magnesium | <40 | ug/L | | | | | 09/03/2025 | SMC | U |
| Phosphorus as P | <0.011 | mg/L | | | | | 09/03/2025 | SMC | U |
| **LCS (B252796-BS1)** | | | | | | | | | |
| Calcium | | | 99.7 | 85-115 | | | 09/03/2025 | SMC | |
| Magnesium | | | 98.7 | 85-115 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 104 | 85-115 | | | 09/03/2025 | SMC | |
| **Duplicate (B252796-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | | | 0.611 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | | | 2.62 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | | | 0.974 | 20 | 09/03/2025 | SMC | |
| **Duplicate (B252796-DUP2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | | | 0.507 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | | | 0.674 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | | | 2.74 | 20 | 09/03/2025 | SMC | |
| **Matrix Spike (B252796-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | | | 09/03/2025 | SMC | |
| Magnesium | | | 99.1 | 70-130 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 107 | 70-130 | | | 09/03/2025 | SMC | |
| **Matrix Spike (B252796-MS2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | 100 | 70-130 | | | 09/03/2025 | SMC | |
| Magnesium | | | 99.2 | 70-130 | | | 09/03/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | | | 09/03/2025 | SMC | |
| **Matrix Spike Dup (B252796-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Calcium | | | 99.1 | 70-130 | 0.702 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | 98.0 | 70-130 | 1.03 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | 105 | 70-130 | 0.996 | 20 | 09/03/2025 | SMC | |
| **Matrix Spike Dup (B252796-MSD2)** Source ID: ME00397-03 | | | | | | | | | |
| Calcium | | | 102 | 70-130 | 0.764 | 20 | 09/03/2025 | SMC | |
| Magnesium | | | 101 | 70-130 | 1.31 | 20 | 09/03/2025 | SMC | |
| Phosphorus as P | | | 108 | 70-130 | 0.932 | 20 | 09/03/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B252828** | | | | | | | | | |
| **Blank (B252828-BLK1)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 09/04/2025 | SAS | U |
| **Blank (B252828-BLK2)** | | | | | | | | | |
| Mercury | <0.01 | ug/L | | | | | 09/04/2025 | SAS | U |
| **LCS (B252828-BS1)** | | | | | | | | | |
| Mercury | | | 98.2 | 85-115 | | | 09/04/2025 | SAS | |
| **Duplicate (B252828-DUP1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | | | 3.21 | 20 | 09/04/2025 | SAS | |
| **Duplicate (B252828-DUP2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | | | NR | 20 | 09/04/2025 | SAS | |
| **Matrix Spike (B252828-MS1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | 98.4 | 70-130 | | | 09/04/2025 | SAS | |
| **Matrix Spike (B252828-MS2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | 114 | 70-130 | | | 09/04/2025 | SAS | |
| **Matrix Spike Dup (B252828-MSD1)** Source ID: AC00433-01 | | | | | | | | | |
| Mercury | | | 98.9 | 70-130 | 0.370 | 20 | 09/04/2025 | SAS | |
| **Matrix Spike Dup (B252828-MSD2)** Source ID: BB05008-01 | | | | | | | | | |
| Mercury | | | 108 | 70-130 | 5.40 | 20 | 09/04/2025 | SAS | |
| **Batch: B252857** | | | | | | | | | |
| **Blank (B252857-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 09/06/2025 | DMW | U |
| Cadmium | <0.010 | ug/L | | | | | 09/06/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 09/06/2025 | DMW | U |
| **LCS (B252857-BS1)** | | | | | | | | | |
| Arsenic | | | 99.2 | 85-115 | | | 09/06/2025 | DMW | |
| Cadmium | | | 98.7 | 85-115 | | | 09/06/2025 | DMW | |
| Lead | | | 101 | 85-115 | | | 09/06/2025 | DMW | |
| **Duplicate (B252857-DUP1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | | | 4.03 | 20 | 09/06/2025 | DMW | |
| Cadmium | | | | | NR | 20 | 09/06/2025 | DMW | U |
| Lead | | | | | 4.79 | 20 | 09/06/2025 | DMW | |
| **Matrix Spike (B252857-MS1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | 99.1 | 70-130 | | | 09/06/2025 | DMW | |
| Cadmium | | | 97.9 | 70-130 | | | 09/06/2025 | DMW | |
| Lead | | | 99.6 | 70-130 | | | 09/06/2025 | DMW | |
| **Matrix Spike Dup (B252857-MSD1)** Source ID: ES00408-06 | | | | | | | | | |
| Arsenic | | | 99.3 | 70-130 | 0.193 | 20 | 09/06/2025 | DMW | |
| Cadmium | | | 98.1 | 70-130 | 0.216 | 20 | 09/06/2025 | DMW | |
| Lead | | | 99.7 | 70-130 | 0.0854 | 20 | 09/06/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B252844** | | | | | | | | | |
| **Blank (B252844-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 09/04/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 09/04/2025 | DMW | U |
| Lead | <0.0050 | ug/L | | | | | 09/04/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 09/04/2025 | DMW | U |
| **LCS (B252844-BS1)** | | | | | | | | | |
| Cadmium | | | 96.2 | 85-115 | | | 09/04/2025 | DMW | |
| Copper | | | 97.2 | 85-115 | | | 09/04/2025 | DMW | |
| Lead | | | 93.6 | 85-115 | | | 09/04/2025 | DMW | |
| Zinc | | | 98.0 | 85-115 | | | 09/04/2025 | DMW | |
| **Duplicate (B252844-DUP1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 09/04/2025 | DMW | U |
| Copper | | | | | 6.41 | 10 | 09/04/2025 | DMW | |
| Lead | | | | | 6.47 | 10 | 09/04/2025 | DMW | |
| Zinc | | | | | NR | 10 | 09/04/2025 | DMW | U |
| **Matrix Spike (B252844-MS1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | 93.4 | 70-130 | | | 09/04/2025 | DMW | |
| Copper | | | 94.0 | 70-130 | | | 09/04/2025 | DMW | |
| Lead | | | 89.9 | 70-130 | | | 09/04/2025 | DMW | |
| Zinc | | | 97.7 | 70-130 | | | 09/04/2025 | DMW | |
| **Matrix Spike Dup (B252844-MSD1)** Source ID: ES00408-06 | | | | | | | | | |
| Cadmium | | | 92.4 | 70-130 | 1.13 | 10 | 09/04/2025 | DMW | |
| Copper | | | 92.0 | 70-130 | 2.13 | 10 | 09/04/2025 | DMW | |
| Lead | | | 88.5 | 70-130 | 1.54 | 10 | 09/04/2025 | DMW | |
| Zinc | | | 95.1 | 70-130 | 2.66 | 10 | 09/04/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 09/29/2025 09:22

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| Seed-01 | The seed depletion is greater than that recommended by the method. The LCS is acceptable showing the seed supports the method. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714-6418
Tel. (208) 407-4284
**Purchase Order: 63069586**
**Project: Stormwater PI**
Sampler(s): Kristen Jolliffe
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Water | Grab | Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | NO3+NO2 - EPA 353.2 | Timberline Ammonia-001 | Chloride - EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC00434-01 | 8/26/25 | 8/27/25 | 1752 | 0850 | 250826-206-WC | ST | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 8/27/25 1003 | [signature] 8/27/25 1005 | |

COC_WQL-PI

241010 ST

AC00434

AC00434

# NPDES Phase I Storm Event Report
# September 29, 2025

Prepared by

Ada County Highway District

October 30, 2025

# Section 1: Introduction

The Environmental Protection Agency Region 10 reissued a Municipal Separate Storm Sewer System Phase I National Pollutant Discharge Elimination System Permit (NPDES Permit), effective October 1, 2021, to Ada County Highway District (ACHD), Boise City, Ada County Drainage District No. 3, Idaho Transportation Department District 3, Boise State University, and Garden City. Under the NPDES Permit, Permittees are required to continue to conduct wet weather stormwater outfall monitoring and subwatershed monitoring. Four outfall monitoring sites (Lucky, Whitewater, Main, and Americana) and one subwatershed monitoring site (AS_6) have been established. The AS_6 site represents a subwatershed located within the Americana watershed. The Main Alternate (Main Alt) monitoring site may be used when high river flows surcharge the Main storm drain pipes. At each site, a minimum of three composite and three grab samples will be collected during Water Year (WY) 2025 (October 1, 2024, through September 30, 2025). The following storm event report summarizes stormwater sampling results from the September 29, 2025, storm event.

# Section 2: Project Status

Table 2-1 is a summary of the sample types collected to date for WY 2025 Phase I Stormwater Outfall Monitoring. When samples are qualified, additional samples will be attempted from subsequent storms to collect unqualified samples.

Table 2-1. WY 2025 Samples Collected

| Date | Lucky | Whitewater | Main | Main Alt | Americana | AS_6 |
|---|---|---|---|---|---|---|
| December 14, 2024 | G, C[1] | G, C | G, C | -- | G, C | G, C |
| January 31, 2025 | --, C | --, C[2] | --. C | -- | --, C[2] | --, C[3] |
| February 23, 2025 | G, C[4] | G, -- | G, C | -- | G, C[2] | G, C |
| May 17, 2025 | G, C | --, C | -- | G, -- | G, C | G, C[4] |
| August 26, 2025 | --, C[4] | G[5], -- | --, -- | --, -- | --, -- | --, C[4] |
| September 29, 2025 | --, -- | --, C[2,4] | --, -- | --, -- | --, C[4] | --, -- |
| Unqualified Samples: | 3G, 2C | 2G, 2C | 3G, 3C | | 3G, 2C | 3G, 2C |
| Samples Remaining: | 0G, 1C | 1G, 1C | 0G, 0C | | 0G, 1C | 0G, 1C |

*Notes:*

*-- = no samples taken.*

*C = composite sample.*

*G = grab sample.*

*[1] Equipment installation error resulted in negative flow and velocity; therefore, no composite subsamples were taken.*

*[2] Composite sample qualified due to lack of representativeness (50%–75%).*

*[3] Sample rejected due to lack of representativeness (<50%).*

*[4] Composite sample qualified due to exceedance of 6.0°C.*

*[5] E. coli sample qualified due to exceeded holding time.*

# Section 3: Storm Event Summary

The September 29, 2025, storm event and the subsequent preparation and sampling efforts are detailed in the following sections.

## 3.1 Storm Detail

A summary of the forecast on which monitoring decisions were based is detailed below. The sampling event communication form that describes the forecast and summarizes the decision-making process from September 29, 2025, is included in Attachment A for reference.

### Monday, September 29, 2025 (Sampling Event Communication & Set up)

- On the morning of September 29, the National Weather Service issued a forecast for a weather system beginning on September 29 at 2000 until 0300 on September 30. The system was forecasted to begin as thunderstorms and transition to widespread rain at 2100. The chance of precipitation was 90% with an 80% chance of rain totals exceeding 0.10" over a 12-hour period. The forecasted precipitation for this event was 0.20 to 0.30 inches of rain.
- Setup was accomplished on the morning of September 29. An expected precipitation depth of 0.11 inches was used to set trigger volumes at monitoring stations. A runoff calculations worksheet showing how the trigger volumes were calculated is included in Attachment A.

### Monday, September 29, 2025 (Storm Event)

- The runoff started on September 29 at approximately 2140 and ended on September 30 at approximately 0619.
- Precipitation totals ranged between 0.62 and 0.73 inches at local rain gauges.

Flow measurements and precipitation data are listed in Table 1 along with a sampling summary. Hydrographs for the Whitewater and Americana sites showing flow, rain, and sample collection data are included in Attachment B.

## 3.2 Sampling Summary

The Whitewater and Americana monitoring stations were set up on September 29, 2025, to collect flow-proportional composite samples during the storm. Sampler enable conditions were programmed into the Whitewater and Americana flowmeters. Setup and sampling information are included in Table 1. The field forms completed during setup/shutdown and sampling are included in Attachment C.

### Composite Samples

Composite samples were collected at the Whitewater and Americana monitoring stations and submitted to the Boise City Public Works Water Quality Laboratory (WQL) at 0607 on September 30. Analytical results are shown in Table 2 and pollutant loading estimates for the event are detailed in Table 3. Laboratory analytical reports are included in Attachment D.

# Section 4: Quality Assurance/Quality Control

No quality control samples were collected during the September 29, 2025, storm event.

Data quality objectives for this storm were evaluated and tracked using the data validation review checklist included in Attachment A.

An acceptable composite sample represents at least 75 percent of the total discharge or at least 6 hours of the storm duration. The Americana composite sample met the representativeness criteria. However, the composite sample collected at Whitewater represented 52 percent of the total storm discharge and 3.5 hours of the storm duration, qualifying the composite sample for lack of representativeness. Additionally, the composites collected at Whitewater and Americana exceeded the preservation temperature maximum of 6°C. Therefore, all constituents analyzed are considered estimates with the exception of total metals, hardness, and chloride, in accordance with 40 CFR 136.

The Americana monitoring station has two associated rain gauges, Front and East, that are used to verify that storm criteria were met. In the September 29 storm, only the Front rain gauge was used to verify precipitation amounts. Further discussion is included in Section 5.

# Section 5: Notes and Recommendations

### Whitewater

The sampling team discovered that the sampling program was complete upon arriving on site at 2229 on September 29. After further review, it was determined that the first composite bottle was comprised of non-stormwater subsamples caused by the increase in dry weather background flow prior to the start of the storm event. The bottle was discarded and not submitted to the WQL. The completion of the initial sampler program prevented subsample collection at the beginning of the storm, which contributed to the low storm representativeness of the composite sample. Additionally, the seventh composite bottle was determined to be comprised of irrigation subsamples. This bottle was discarded and not submitted to the WQL. Due to the variability of irrigation influence to the Whitewater storm drain system, these occurrences are difficult to predict or mitigate.

### Americana

After the end of the September 29 storm, it was discovered that the East rain gauge had not recorded precipitation data. The power to the loggers had been reset during routine maintenance. However, the power had been reset after relaunching the loggers, which voided the launch, resulting in no data collection. The logger was relaunched after the storm and verified to be logging.

# Data Tables

| Table 1. Sampling and Flow Summary | | | | | |
|---|---|---|---|---|---|
| | Lucky | Whitewater | Main | Americana | AS_6 |
| Grab samples collected and submitted? | NO | NO | NO | NO | NO |
| Composite samples collected and submitted? | NO | YES | NO | YES | NO |
| Trigger volume | -- | 801 cf | -- | 2960 cf | -- |
| Sampler enable condition (in) or Velocity cutoff (fps) | -- | Level > 7.0" | -- | Level >5.75" | -- |
| Deadband/ Hysteresis (in) | -- | 1.0" | -- | 1.0" | -- |
| Runoff start time | -- | 2151[1] | -- | 2140[1] | -- |
| Grab sample collection time | -- | -- | -- | -- | -- |
| Composite sample stop time | -- | 0317 | -- | 0524 | -- |
| Runoff stop time | -- | 0320[2] | -- | 0619[2] | -- |
| Volume of discharge sampled ($ft^3$) | -- | 133,103 | -- | 260,313 | -- |
| Total runoff volume ($ft^3$) | -- | 255,852 | -- | 288,387 | -- |
| Percent of storm flow sampled (%) | -- | 52% | -- | 90% | -- |
| Composite sample duration (hrs) | -- | 3.5 | -- | 7 | -- |
| Storm Precipitation (in) | -- | 0.73 | 0.62 | 0.62/-- | 0.62/-- |
| Referenced Rain Gauge | Cynthia Mann | Whitewater | Front | Front/East | Front/East |
| Sampler messages (counts): Success | -- | 144 | -- | 90 | -- |
| Number of composite bottles filled | -- | 6 | -- | 4 | -- |
| Composite sample volume (Approx.; ml) | -- | 79,500 | -- | 55,250 | -- |

*Notes:*

*– = No data.*

[1] *Storm runoff started on 9/29/25.*

[2] *Storm runoff ended on 9/30/25.*

Table 2. Field and Analytical Data Summary

| Monitoring Station | Sample Date | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | uS/cm | C | MPN/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Whitewater | 9/29/2025 | -- | -- | -- | -- | -- | -- | 250929-11-WC | 39.6[1,2J] | 146[1,2J] | 5.11[1J] | 29.3[1J] | 22.0[1,2J] | 159[1,2J] | 80.7[1,2J] | 0.541[1,2J] | 0.268[1,2J] | 0.409[1,2J] | 0.380[1,2J] | 2.95[1,2J] | 3.0[1J] | <0.0100[1,2J] | 0.093[1J] | 3.9[1,2J] | 0.21[1,2J] | 8.4[1J] | 0.0229[1J] | 15.5[1,2J] |
| Americana | 9/29/2025 | -- | -- | -- | -- | -- | -- | 250929-14-WC | 46.4[2J] | 215[2J] | 6.64 | 35.1 | 32.3[2J] | 171[2J] | 87.5[2J] | 0.637[2J] | 0.277[2J] | 0.695[2J] | 0.470[2J] | 3.38[2J] | 3.9 | <0.0100[2J] | 0.18 | 5.3[2J] | 0.18[2J] | 11.7 | 0.0249 | 31.0[2J] |

*Notes:*

*-- = No data.*

*[1J] Composite sample qualified due to lack of representativeness.*

*[2J] Composite sample qualified due to exceedance of 6.0° C.*

| Table 3. Event Pollutant Loading Estimates in Pounds | | | | | | |
|---|---|---|---|---|---|---|
| Monitoring Station | Event Date | TSS | Total Phosphorus | Ammonia as N | Nitrate + Nitrite as N | TKN |
| Whitewater | 9/29/2025 | 2538.9[1J,2J] | 8.639[1J,2J] | 6.531[1J,2J] | 6.069[1J,2J] | 47.105[1J,2J] |
| Americana | 9/29/2025 | 3078[2J] | 11.46[2J] | 12.51[2J] | 8.459[2J] | 60.8[2J] |

*Notes:*

*-- = No data*

*[1J] Composite sample qualified due to lack of representativeness.*

*[2J] Composite sample qualified due to exceedance of 6.0°C*

# Attachment A: Supplemental Documents

Sampling Event Communication Form

Data Validation Checklist

Runoff Calculation Worksheet

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 9/29/2025 | Time: 9:01 AM | Initials: ST |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?)<br>Or, if it is Friday, | | Yes |

| | |
|---|---|
| Past 72 hr Precip | |
| Date and time of expected event | Monday 8:00 pm – Tuesday 3:00 am |
| Expected amount of precipitation | 0.20" – 0.30" |
| Percent chance of precipitation | 90% |
| Percent chance of >0.10" over 12 hours | 80% |

NWS Update

Spoke with Les with NWS. The front will start as thunderstorms (convective) around 8:00pm and transition to light/ moderate rain (stratiform) from 9:00pm – 12:00am. There may be some light showers from 12:00am – 6:00am. This start time could be influenced by minor rain shadowing. We can expect between 0.2" – 0.3" throughout Monday – Tuesday morning.

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☐ Grab | ☐ Grab | ☐ Grab | ☐ Grab | ☐ Grab | ☒ Grab |
| ☐ Composite | ☒ Composite | ☐ Composite | ☒ Composite | ☐ Composite | ☒ Composite |

Type of Forecasted Precipitation

| | | |
|---|---|---|
| ☐ Light Rain | ☒ Rain | ☐ Rain on Snow |
| ☒ Scattered Showers | ☒ Thunder Showers | ☐ Snowmelt |
| ☐ Other: | | |

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☐ Waiting on Antecedent Dry Period
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: 2 Miles NNW Garden City ID
Issued by: National Weather Service Boise, ID
Last Update: 3:04 am MDT Sep 29, 2025

Today: A chance of showers, with thunderstorms also possible after noon. Mostly cloudy, with a high near 80. Southeast wind 5 to 10 mph becoming light and variable. Chance of precipitation is 40%.
**Tonight: Showers and possibly a thunderstorm before midnight, then showers likely.** Low around 55. East southeast wind 5 to 7 mph becoming light and variable after midnight. **Chance of precipitation is 90%. New precipitation amounts between a tenth and quarter of an inch, except higher amounts possible in thunderstorms.**
Tuesday: A chance of showers, with thunderstorms also possible after 3pm. Partly sunny, with a high near 74. South southeast wind 3 to 8 mph. Chance of precipitation is 30%.
Tuesday Night: Mostly cloudy, with a low around 54. South southeast wind around 6 mph becoming calm after midnight.

Wednesday: Partly sunny, with a high near 71. Calm wind becoming south southwest around 6 mph in the afternoon.
Wednesday Night: A 20 percent chance of showers before midnight. Mostly cloudy, with a low around 50.
Thursday: A 20 percent chance of showers before noon. Partly sunny, with a high near 67.
Thursday Night: Partly cloudy, with a low around 45.
Friday: Sunny, with a high near 67.
Friday Night: Mostly clear, with a low around 44.
Saturday: Sunny, with a high near 66.
Saturday Night: Mostly clear, with a low around 40.
Sunday: Sunny, with a high near 64.

Forecast Discussion

Area Forecast Discussion
National Weather Service Boise ID
304 AM MDT Mon Sep 29 2025

.SHORT TERM...Today through Wednesday night...The leading edge of a broad upper trough will push a cold front through the region this afternoon/evening. **Showers and thunderstorms will develop ahead of the front by early afternoon, with the threat continuing through late evening as the front tracks across SW Idaho.** Wind gusts to 40 mph are possible from showers and storms with locally heavy rain amounts from stronger storms. The larger rain totals through tonight continue to line up over SW Idaho, generally east of a line from the ID/OR/NV triple point, through Idaho City and Warm Lake. Areas east of this line are looking at 0.25-0.50" totals in the Snake Plain with 0.50-1.0" amounts in the mountains. **Otherwise 0.10-0.25" with local** 0.50" amounts are expected across SE Oregon and the lower Snake Plain through tonight.

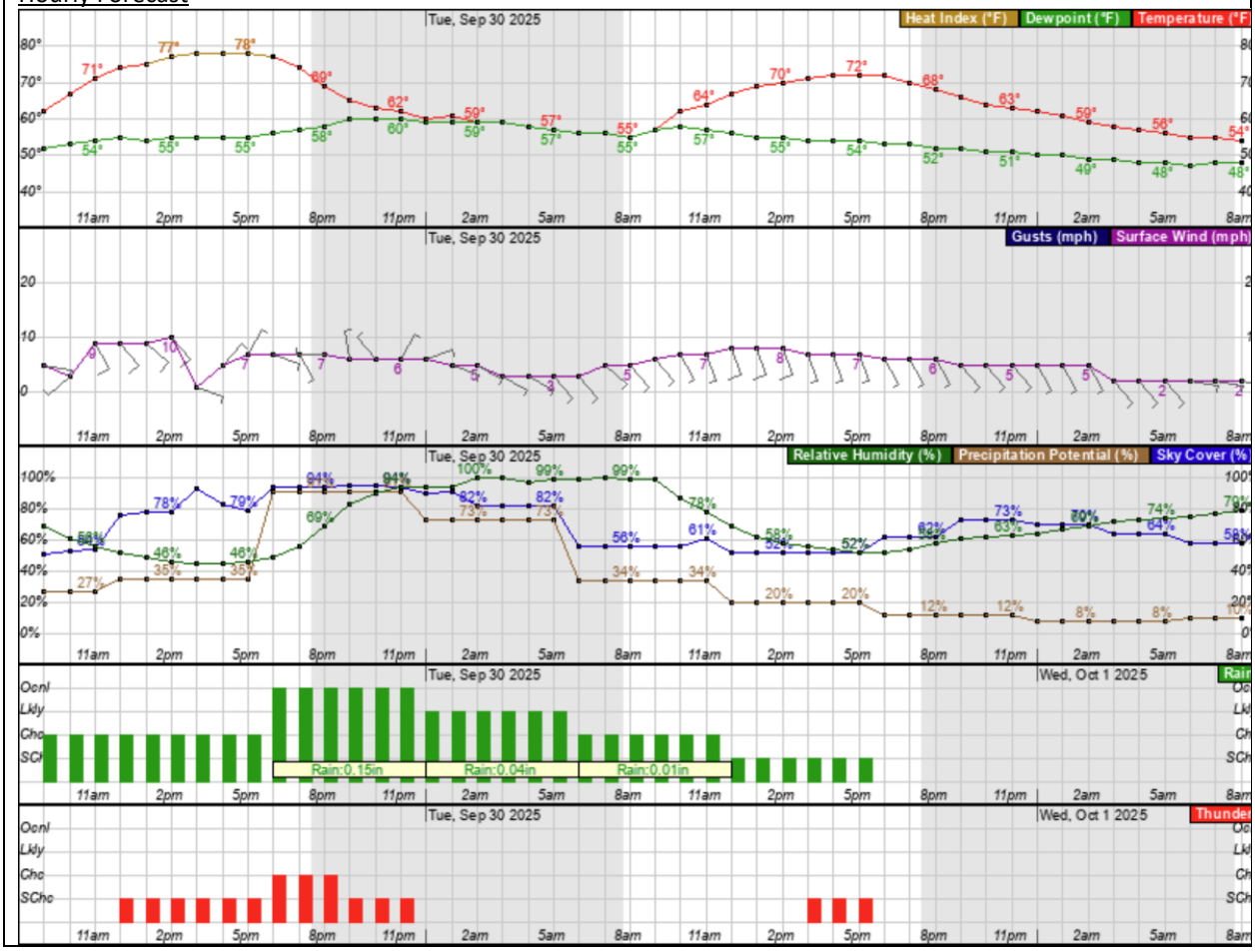
The trough axis remains offshore, keeping the region under southwest flow aloft through Wednesday. Mountains will hold onto a 30-60% chance of precipitation during this time while southeast Oregon and lower elevations of SW Idaho trend drier with probabilities in the 10-25% range. The atmosphere will hold enough instability to support thunderstorm potential on Tuesday, with cloudy and more stable conditions diminishing the threat on Wednesday. Precipitation amounts during this period will be lighter with less than 0.10" across lower elevations and up to 0.25" in the mtns. Temperatures step down 3-6 degrees each day with highs around normal on Wednesday (valleys low 70s, mtns upper 50s). Snow levels remain above 8kft MSL through Wednesday night.

.LONG TERM...Thursday through Monday...The unsettled pattern continues through Friday as the core of a Pacific low finally swings through the area. It moves quickly once making landfall, so only the short timeframe Thursday through Friday morning is affected. Thursday afternoon, higher elevations and s-central Idaho will see precipitation chances around 20 to 40%, correlated strongly with elevation. Right before the core of the low moves overhead, strong moisture flow Thursday evening and night is centered over the Magic Valley and s-central Idaho. While this will bring 0.1-0.2" of rainfall, the band of rain is narrow, and could easily shift in coming model runs. As the

core of the low moves overhead Friday afternoon, precip chances drop drastically.

Skies remain cloudy behind the strong trough, and while another wave begins to develop for Sunday, unfavorable moisture flow among ensemble means hints at a low chance for further precip outside of virga and very light rainfall amounts in the mountains. This secondary wave will however stall and amplify directly over the region Monday, increasing chances of precipitation in the eastern portions of our area, but also continuing the cooling trend. Temps about 5 degrees below normal Thursday through Saturday drop slightly to 5-10 degrees below normal Sunday and Monday. Given model agreement on the amplification of the Sun/Mon low, it seems likely that temps could continue the downward trend after Monday.

Hourly Forecast



# Storm Event QA/QC Checklist – Phase I

| STORM DATE: 9/29/25 | | | | |
|---|---|---|---|---|
| **A. Event and Data Completeness** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Field data sheets filled out completely and clearly | X | | | |
| 2. Field parameters reviewed, and any problems/issues addressed | X | | | |
| 3. All samples collected as specified | X | | | |
| 4. All samples delivered to lab promptly (review chain of custody rpts) | X | | | See analytical reports for noted composite sample container temperatures |
| 5. Inconsistencies/clarifications discussed with sampling team member | | | X | |
| 6. All analytical reports from lab received | X | | | |
| **B. Validation and Verification Methods** | **Yes** | **No** | **N/A** | **Notes** |
| 1. Outliers and unexpected values discussed with lab | | | X | |
| 2. Appropriate analytical methods used | X | | | |
| 3. All lab QA samples were within method acceptance criteria | X | | | |
| 4. All samples reviewed and data qualifiers assigned if needed | KJ | | | |
| 5. Data quality objective achieved | X | | | |

| **C. Specific Storm and Sample QA/QC Criteria** | **Lucky** | **Whitewater** | **Main** | **Americana** | **AS_6** | **Program Criteria** | **Met** | **Qualify** | **Reject** |
|---|---|---|---|---|---|---|---|---|---|
| 1. Antecedent dry period (inches in previous 72-hours) | - | 0.00” | - | 0.00” | - | < 0.11” in 72 hrs | X | | |
| 2. Precipitation (inches) | - | 0.73” | - | 0.62” | - | > 0.10” | X | | |
| 3. Sampled amount (% of total run-off) | - | 52% | - | 90% | - | >= 75% or >= 6 hrs: no qualifier<br>>= 50% and <75%: qualify<br>< 50%: reject | | X Whitewater | |
| 4. Composite sample duration (hours) | - | 3.5 | - | 7 | - | | X | | |
| 4. E.coli sample holding time (hours) | - | - | - | - | - | <=8 hrs: no qualifier<br>>8 and <=16 hrs.: qualify<br>>16 hrs.: reject | - | | |
| 5. Filtering of samples for dissolved parameter analysis (hours) | - | 4.5 | - | 1.5 | - | <= 24 hrs: no qualifier<br>> 24 hrs.: reject | X | | |

**D. Notes**

- Whitewater and Americana composites exceeded preservation temperature maximum, qualifying the sample. Therefore, all constituents are considered estimates with the exception of total metals, hardness, and chloride.
- Whitewater composite was also qualified due to lack of representativeness (50-75%).
- Composite samples for Lucky and AS_6 weren’t targeted because we didn’t learn the previous storm’s samples were qualified until after the event.

**Reviewed by:** Steven Turner Digitally signed by Steven Turner Date: 2025.11.07 11:45:28 -07'00'

**Approved by:** Monica I. Lowe Digitally signed by Monica I. Lowe Date: 2025.11.07 12:49:04 -07'00'

# Storm Runoff Estimates and Trigger Volumes

Step 1. Enter runoff coefficients in yellow cells.
Step 2. Enter expected precipitation depth (in) in blue cell.
Step 3. Read trigger volumes (**bold**) in green cells.

Expected Precipitation Depth = 0.11
Aliquots per Sample = 17

| Site | Area (ac) | Using RC calculated from flow data | | |
|---|---|---|---|---|
| | | RC | Expected Vol ($ft^3$) | Trigger Vol ($ft^3$) |
| Lucky | 105 | 0.157 | 6582.5 | **387** |
| Whitewater | 498 | 0.069 | 13621.3 | **801** |
| Main | 79 | 0.246 | 7760.0 | **456** |
| Main Alt | 60 | 0.200 | 4791.6 | **282** |
| Americana | 875 | 0.144 | 50311.8 | **2960** |
| Americana Alt | 869 | 0.144 | 49966.8 | **2939** |
| AS_6 | 204 | 0.046 | 3747.0 | **220** |
| State | 34 | 0.127 | 1724.2 | **101** |

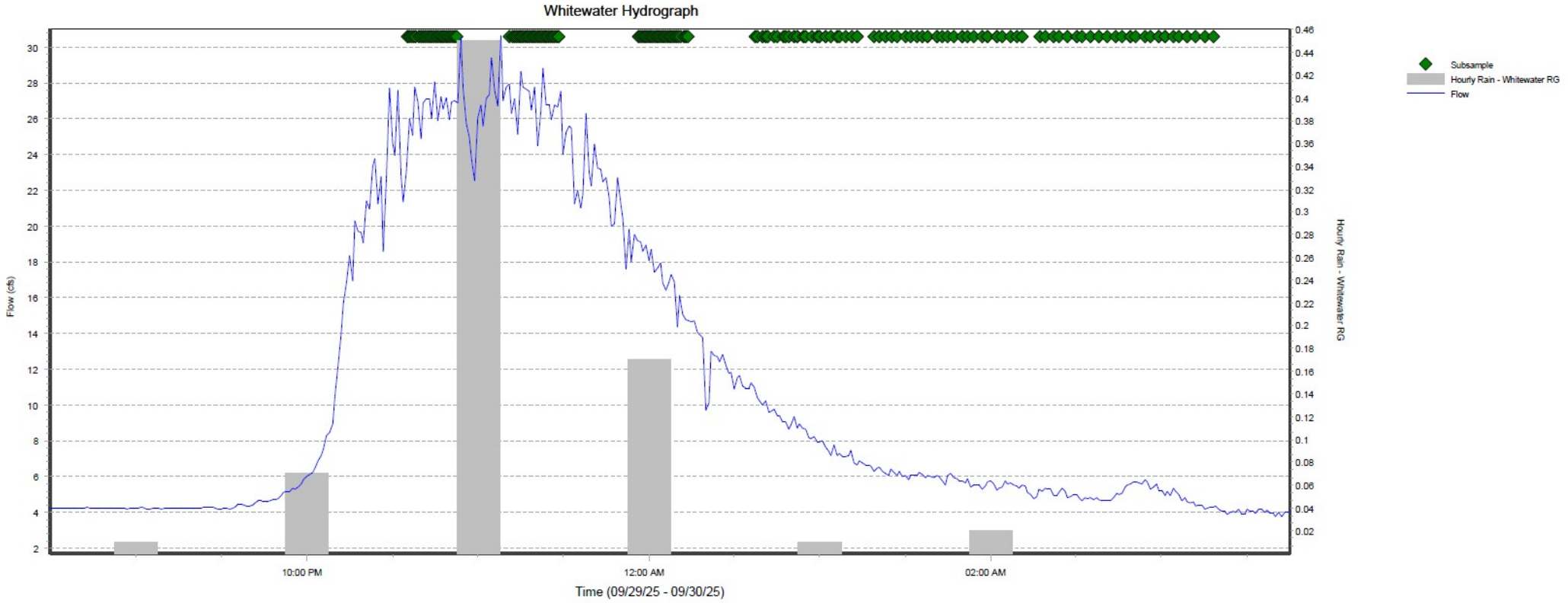
Notes:

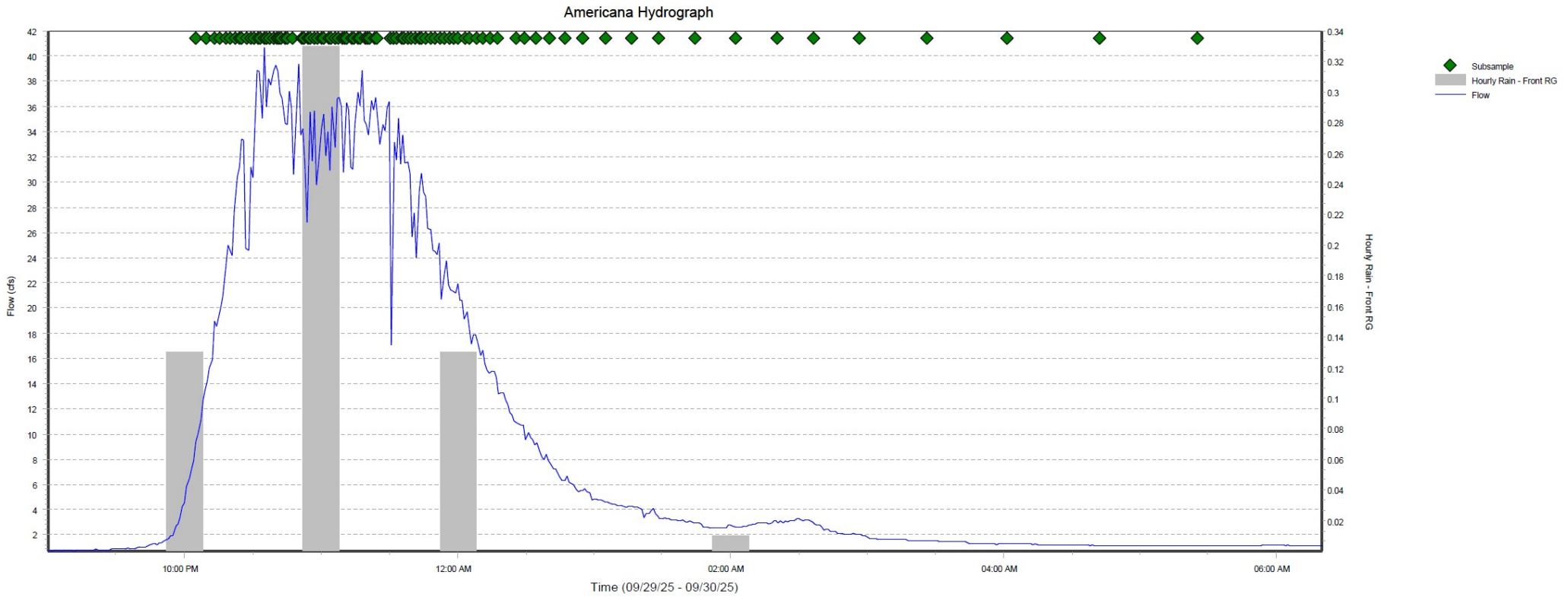
Calculated RC = runoff volume ($ft^3$) / [precip (ft) x area ($ft^2$)]

Where volume ($ft^3$) is the measured discharge, precip (ft) is the measured amount from local rain guage, and area ($ft^2$) is the watershed area.

Expected volume ($ft^3$) = RC x expected precip (ft) x area ($ft^2$)

# Attachment B: Storm Event Hydrographs


Whitewater Hydrograph
Flow (cfs)
Hourly Rain - Whitewater RG
Time (09/29/25 - 09/30/25)
10:00 PM
12:00 AM
02:00 AM
Subsample
Hourly Rain - Whitewater RG
Flow


Americana Hydrograph
Flow (cfs)
Hourly Rain - Front RG
Time (09/29/25 - 09/30/25)
10:00 PM
12:00 AM
02:00 AM
04:00 AM
06:00 AM
Subsample
Hourly Rain - Front RG
Flow

# Attachment C: Field Forms

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**TATION:** Whitewater

## SET UP

**Personnel:** ST, KJ, JM

**Date/Time On-Site:** 9-29-25 1035

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 1039 | 5.75 | 1.83 | 1.59 | — |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 7.0 |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 801 cf |

**On-Site**

- ☒ Check desiccant on flowmeter and sampler
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)

- ☒ Direct or Remote; Date/time 9/29/25 10:41
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:** changed flow meter time from 1037 to 1039

**Date/Time Off-Site:** 9/29/25 10:57

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 10/1/25 12:23

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 858 | 8.39 | 1.77 | 0.92 | — |
| **Downloaded to:** | | ST Laptop | | |
| | | | | |

**On-Site**

- ☐ Replace flowmeter battery
- ☐ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☒ Direct or Remote; Date/time 10/1/25 9:54
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 10/1/25 12:26

**STATION:** Whitewater
**Personnel:** ST, KJ

**Bottle** — **of** —
**Date/Time On-Site:** 9/29/25 22:29

| | |
|---|---|
| ☐ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | -WC |
| **Approx Sample Volume (mL):** | — |
| **Clarity (ex. Clear, Cloudy, Silty):** | — |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | — |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 1139 | Success | 13 | 9/29/25 1214 | Success |
| 2 | 1141 | | 14 | 1216 | |
| 3 | 1145 | | 15 | 1219 | |
| 4 | 1148 | | 16 | 1222 | |
| 5 | 1151 | | 17 | 1225 | |
| 6 | 1154 | | 18 | 1228 | |
| 7 | 1157 | | 19 | 1233 | |
| 8 | 1159 | | 20 | 1236 | |
| 9 | 1202 | | 21 | 1240 | |
| 10 | 1205 | | 22 | 1244 | |
| 11 | 1208 | | 23 | 1248 | |
| 12 | 1210 | | 24 | 1252 | |

**Comments:** This bottle was dumped because it was made up of non stormwater dry weather flow.

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 9/29/25 22:33 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater
**Personnel:** KJ, ST
**Bottle** 1 **of** 6
**Date/Time On-Site:** ~~9/29/25 1107~~ 9/29/25 2307

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250929-11 -WC |
| **Approx Sample Volume (mL):** | 13250 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2234 | Success | 13 | 9/29/25 2243 | Success |
| 2 | 2235 | | 14 | 2244 | |
| 3 | 2235 | | 15 | 2245 | |
| 4 | 2236 | | 16 | 2245 | |
| 5 | 2237 | | 17 | 2246 | |
| 6 | 2238 | | 18 | 2247 | |
| 7 | 2239 | | 19 | 2248 | |
| 8 | 2239 | | 20 | 2248 | |
| 9 | 2240 | | 21 | 2249 | |
| 10 | 2241 | | 22 | 2250 | |
| 11 | 2242 | | 23 | 2251 | |
| 12 | 2242 | | 24 | 2251 | Success |

**Comments:**

**Date/Time Off-Site:** 9/29/25 ~~1113~~ 2313

| If sampling is complete: | If continuing sampling (sample bottle change-out): |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☑ Keep flowmeter running |
| ☐ Keep flowmeter running | ☑ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☑ Restart program from beginning |
| | **Date/Time Restarted:** 9/29/25 2311 |
| | ☑ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitaker
**Personnel:** KJ, ST

**Bottle** 2 **of** 6
**Date/Time On-Site:** 9/29/25 1152

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250929-11 | -WC |
| **Approx Sample Volume (mL):** | 13,250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2310 | Success | 13 | 9/29/25 2319 | Success |
| 2 | 2311 | | 14 | 2320 | |
| 3 | 2311 | | 15 | 2320 | |
| 4 | 2312 | | 16 | 2321 | |
| 5 | 2313 | | 17 | 2322 | |
| 6 | 2314 | | 18 | 2323 | |
| 7 | 2314 | | 19 | 2323 | |
| 8 | 2315 | | 20 | 2324 | |
| 9 | 2316 | | 21 | 2325 | |
| 10 | 2317 | | 22 | 2326 | |
| 11 | 2317 | | 23 | 2326 | |
| 12 | 2318 | | 24 | 2327 | |

**Comments:**

**Date/Time Off-Site:** 9/29/25 2355

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 9/29 2354 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater
**Personnel:** ST, KJ

**Bottle** 3 **of** 6
**Date/Time On-Site:** 9/30/25 0030

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250929-11 | -WC |
| **Approx Sample Volume (mL):** | 13,250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2355 | Success | 13 | 9/30/25 0004 | Success |
| 2 | 2356 | | 14 | 0005 | |
| 3 | 2356 | | 15 | 0005 | |
| 4 | 2357 | | 16 | 0006 | |
| 5 | 2358 | | 17 | 0007 | |
| 6 | 2359 | | 18 | 0008 | |
| 7 | 2359 | | 19 | 0008 | |
| 8 | 9/30/25 0000 | | 20 | 0009 | |
| 9 | 0001 | | 21 | 0010 | |
| 10 | 0002 | | 22 | 0011 | |
| 11 | 0002 | | 23 | 0012 | |
| 12 | 0003 | | 24 | 0013 | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** ~~9/30 12:35~~ 5T 00:36 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| 0.5" | 400 mL | 3.0" | 3500 mL | 5.5" | 7250 mL | 8.0" | 11000 mL | 10.5" | 14750 mL |
| 1.0" | 800 mL | 3.5" | 4250 mL | 6.0" | 8000 mL | 8.5" | 11750 mL | 11.0" | 15500 mL |
| 1.5" | 1400 mL | 4.0" | 5000 mL | 6.5" | 8750 mL | 9.0" | 12500 mL | 11.5" | 16250 mL |
| 2.0" | 2000 mL | 4.5" | 5750 mL | 7.0" | 9500 mL | 9.5" | 13250 mL | After 12" | 1" = 1500 mL |
| 2.5" | 2750 mL | 5.0" | 6500 mL | 7.5" | 10250 mL | 10.0" | 14000 mL | Lab min | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 4 **of** 6

**Personnel:** KT, ST **Date/Time On-Site:** 9/30/25 0114

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250929-11 -WC |
| **Approx Sample Volume (mL):** | ~3,250 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/30/25 0036 | Success | 13 | 9/30/25 0053 | Success |
| 2 | 0037 | | 14 | 0054 | |
| 3 | 0039 | | 15 | 0056 | |
| 4 | 0040 | | 16 | 0058 | |
| 5 | 0041 | | 17 | 0059 | |
| 6 | 0043 | | 18 | 0101 | |
| 7 | 0044 | | 19 | 0103 | |
| 8 | 0046 | | 20 | 0105 | |
| 9 | 0047 | | 21 | 0105 | |
| 10 | 0048 | | 22 | 0108 | |
| 11 | 0050 | | 23 | 0110 | |
| 12 | 0050 | | 24 | 0112 | |

**Comments:**

**If sampling is complete:**
- ☐ Power off sampler, if separate from flowmeter
- ☐ Keep flowmeter running
- ☐ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☒ Keep flowmeter running
- ☒ Install new 15L bottle; add ice
- ☒ Restart program from beginning

**Date/Time Restarted:** 9/30 1116

- ☒ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 5 **of** 6

**Personnel:** ST, KT **Date/Time On-Site:** 9/30/25 2:10

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250929-11 -WC |
| **Approx Sample Volume (mL):** | 13,250 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/30/25 0118 | Success | 13 | 9/30/25 0143 | Success |
| 2 | 0120 | | 14 | 0145 | |
| 3 | 0122 | | 15 | 0149 | |
| 4 | 0124 | | 16 | 0151 | |
| 5 | 0126 | | 17 | 0153 | |
| 6 | 0129 | | 18 | 0156 | |
| 7 | 0131 | | 19 | 0158 | |
| 8 | 0132 | | 20 | 0201 | |
| 9 | 0135 | | 21 | 0203 | |
| 10 | 0137 | | 22 | 0206 | |
| 11 | 0140 | | 23 | 0208 | |
| 12 | 0142 | | 24 | 0209 | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 9/30 2:15 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater **Bottle** 6 **of** 6

**Personnel:** KJ, ST **Date/Time On-Site:** 9/30/25 0310

| | |
|---|---|
| ☒ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250929-11 -WC |
| **Approx Sample Volume (mL):** | 13250 |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/30/25 0216 | Success | 13 | 9/30/25 0248 | Success |
| 2 | 0218 | | 14 | 0250 | |
| 3 | 0220 | | 15 | 0253 | |
| 4 | 0223 | | 16 | 0255 | |
| 5 | 0226 | | 17 | 0258 | |
| 6 | 0229 | | 18 | 0300 | |
| 7 | 0230 | | 19 | 0303 | |
| 8 | 0233 | | 20 | 0304 | |
| 9 | 0236 | | 21 | 0308 | |
| 10 | 0240 | | 22 | 0311 | |
| 11 | 0243 | | 23 | 0314 | |
| 12 | 0245 | | 24 | 0317 | |

**Comments:**

**If sampling is complete:**
- ☐ Power off sampler, if separate from flowmeter
- ☐ Keep flowmeter running
- ☐ Add ice to sample transport cooler

**If continuing sampling (sample bottle change-out):**
- ☒ Keep flowmeter running
- ☒ Install new 15L bottle; add ice
- ☒ Restart program from beginning

**Date/Time Restarted:** 9/30/25 0321

- ☒ Verify running

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Whitewater — Bottle 7 ST of —

**Personnel:** KJ, ST — **Date/Time On-Site:** 9/30/25

| | |
|---|---|
| ☒ Halt sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | ~~250930~~ 250929-11 -WC |
| **Approx Sample Volume (mL):** | |
| **Clarity (ex. Clear, Cloudy, Silty):** | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/30/25 324 | Success | 13 | 9/30/25 405 | Success |
| 2 | 327 | | 14 | 409 | |
| 3 | 329 | | 15 | 413 | |
| 4 | 334 | | 16 | 417 | |
| 5 | 337 | | 17 | | |
| 6 | 340 | | 18 | | |
| 7 | 344 | | 19 | | |
| 8 | 347 | | 20 | | |
| 9 | 351 | | 21 | | |
| 10 | 355 | | 22 | | |
| 11 | 358 | | 23 | | |
| 12 | 402 | | 24 | | |

**Comments:** This bottle was not submitted to the lab due to suspected non-stormwater flow. Rain stopped around 1:45 and subsamples were still pulling at 3-5 minute intervals without slowing down. Bottle was very clear too.

**Date/Time Off-Site:** _____

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter | ☐ Keep flowmeter running |
| ☒ Keep flowmeter running | ☐ Install new 15L bottle; add ice |
| ☒ Add ice to sample transport cooler | ☐ Restart program from beginning |
| | **Date/Time Restarted:** _____ |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO (Whitewater, Americana, Main, State)

**TATION:** Americana

## SET UP

**Personnel:** ST, KJ

**Date/Time On-Site:** 9/29/25 11:19

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 11:20 | 3.78 | 0.66 | 1.430 | 11.44 |
| | | | | |
| | | | | |

| | |
|---|---|
| **Enable Condition:** | 5.75 |
| **Hysteresis:** | 1 |
| **Flow Pulse Interval:** | 2960 cf |

**On-Site**
- ☒ Check desiccant on flowmeter and sampler
- ☒ Replace flowmeter battery, install sampler battery
- ☒ Perform decon. cycle
- ☒ Install 15L sample bottle, with ice
- ☒ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☒ Set sampler program parameters
- ☒ Check date/time on sampler
- ☒ Verify all cable and tubing connections
- ☒ Verify sampler program is running

**Flowlink** (Refer to PG 411 or PG 412, if needed)
- ☒ Direct or Remote; Date/time 9/29/25 11:25
- ☒ Retrieve data and review recent flow history
- ☒ Change Wireless Power Control to Storm Event
- ☒ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☒ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:** Changed flowmeter time from 11:22 to 11:25

**Date/Time Off-Site:** 9/29/25 11:40

## SHUT DOWN

**Personnel:** ST

**Date/Time On-Site:** 10/1/2025 10:50

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| 9:06 | 7.69 | 3.02 | 2.324 | 11.82 |
| | **Downloaded to:** | ST Laptop | | |
| | | | | |

**On-Site**
- ☒ Replace flowmeter battery
- ☒ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)
- ☒ Direct or (Remote); Date/time 10/1 ~~9:07~~ ST 10:17
- ☒ Retrieve data
- ☒ Change Wireless Power Control to Dry Weather
- ☒ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☒ Enable Sampler: Never

**Comments:**

**Date/Time Off-Site:** 10/1/2025 10:55

Revised 250922 ST

**STATION:** Americana **Bottle** 1 **of** 4

**Personnel:** KJ, ST **Date/Time On-Site:** 9/29/25 22:45

| | |
|---|---|
| ☒ Halt sampler program | |
| ☒ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | 250929 - 14 -WC |
| **Approx Sample Volume (mL):** | 14750 mL |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Black |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2203 | Success | 13 | 9/29/25 2231 | Success |
| 2 | 2208 | ↓ | 14 | 2232 | ↓ |
| 3 | 2212 | ↓ | 15 | 2234 | ↓ |
| 4 | 2214 | ↓ | 16 | 2235 | ↓ |
| 5 | 2217 | ↓ | 17 | 2236 | ↓ |
| 6 | 2218 | ↓ | 18 | 2238 | ↓ |
| 7 | 2221 | ↓ | 19 | 2239 | ↓ |
| 8 | 2223 | ↓ | 20 | 2240 | ↓ |
| 9 | 2224 | ↓ | 21 | 2241 | ↓ |
| 10 | 2226 | ↓ | 22 | 2242 | ↓ |
| 11 | 2228 | ↓ | 23 | 2244 | ↓ |
| 12 | ↓ 2229 | ↓ | 24 | ↓ 2246 | ↓ |

**Comments:**

**Date/Time Off-Site:** 9/29/25 2251

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning ST |
| | **Date/Time Restarted:** 9/29/25 ~~10~~ 2249 |
| | ☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 2 **of** 4

**Personnel:** KS, ST **Date/Time On-Site:** 9/29/25 2320

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250929-14 | -WC |
| **Approx Sample Volume (mL):** | 14750 | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Silty | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2250 | Success | 13 | 9/29/25 2308 | Success |
| 2 | 2251 | | 14 | 2309 | |
| 3 | 2253 | | 15 | 2310 | |
| 4 | 2254 | | 16 | 2312 | |
| 5 | 2256 | | 17 | 2313 | |
| 6 | 2257 | | 18 | 2315 | |
| 7 | 2259 | | 19 | 2316 | |
| 8 | 2300 | | 20 | 2318 | |
| 9 | 2302 | | 21 | 2319 | |
| 10 | 2303 | | 22 | 2320 | |
| 11 | 2305 | | 23 | 2322 | |
| 12 | 2306 | | 24 | 2323 | |

**Comments:**

KS 9/29/25

**Date/Time Off-Site:** ~~9/29/25~~ 2330

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 9/29 2328 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | ~~14750 mL~~ |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 3 **of** 4

**Personnel:** KJ, ST **Date/Time On-Site:** 9/30/25 0010

| | | |
|---|---|---|
| ☐ Halt sampler program | | |
| ☐ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250929-14 | -WC |
| **Approx Sample Volume (mL):** | 15500 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Cloudy | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Brown | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/29/25 2329 | Success | 13 | 9/29/25 2349 | Success |
| 2 | 2330 | | 14 | 2351 | |
| 3 | 2332 | | 15 | 2353 | |
| 4 | 2334 | | 16 | 2355 | |
| 5 | 2335 | | 17 | 2356 | |
| 6 | 2337 | | 18 | 2359 | |
| 7 | 2338 | | 19 | 9/30/25 0002 | |
| 8 | 2340 | | 20 | 0004 | |
| 9 | 2341 | | 21 | 0007 | |
| 10 | 2343 | | 22 | 0010 | |
| 11 | 2344 | | 23 | 0013 | |
| 12 | 2347 | | 24 | 0016 | |

**Comments:**

**Date/Time Off-Site:** 9/30/25 0023

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler, if separate from flowmeter | ☒ Keep flowmeter running |
| ☐ Keep flowmeter running | ☒ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☒ Restart program from beginning |
| | **Date/Time Restarted:** 0020 |
| | ☒ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Composite Sample Collection

**STATION:** Americana **Bottle** 4 **of** 4

**Personnel:** ST, KJ **Date/Time On-Site:** 9/30/25 0437

| | | |
|---|---|---|
| ☒ Halt sampler program | | |
| ☒ Put lid on sample bottle; label sample bottle | | |
| **Sample ID:** | 250929-14 | -WC |
| **Approx Sample Volume (mL):** | 10250 mL | |
| **Clarity (ex. Clear, Cloudy, Silty):** | Clear | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | Tan | |
| **QA/QC Sample ID:** | -103 | (Time: 1200) |

**Subsample Information**

| Trigger # | Date/Time | Error Message/ Subsample Result | Trigger # | Date/Time | Error Message/ Subsample Result |
|---|---|---|---|---|---|
| 1 | 9/30/25 0024 | Success | 13 | 9/30/25 235 | Success |
| 2 | 0028 | | 14 | 255 | |
| 3 | 0033 | | 15 | 325 | |
| 4 | 0039 | | 16 | 400 | |
| 5 | 0046 | | 17 | 441 | |
| 6 | 0054 | | 18 | 524 | |
| 7 | 104 | | 19 | | |
| 8 | 115 | | 20 | | |
| 9 | 127 | | 21 | | |
| 10 | 143 | | 22 | | |
| 11 | 201 | | 23 | | |
| 12 | 219 | | 24 | | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☒ Power off sampler, if separate from flowmeter<br>☒ Keep flowmeter running<br>☒ Add ice to sample transport cooler | ☐ Keep flowmeter running<br>☐ Install new 15L bottle; add ice<br>☐ Restart program from beginning<br>**Date/Time Restarted:** _____<br>☐ Verify running |

Liquid Height vs. Approximate Sample Volume Conversion Chart

| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
|---|---|---|---|---|---|---|---|---|---|
| **0.5"** | 400 mL | **3.0"** | 3500 mL | **5.5"** | 7250 mL | **8.0"** | 11000 mL | **10.5"** | 14750 mL |
| **1.0"** | 800 mL | **3.5"** | 4250 mL | **6.0"** | 8000 mL | **8.5"** | 11750 mL | **11.0"** | 15500 mL |
| **1.5"** | 1400 mL | **4.0"** | 5000 mL | **6.5"** | 8750 mL | **9.0"** | 12500 mL | **11.5"** | 16250 mL |
| **2.0"** | 2000 mL | **4.5"** | 5750 mL | **7.0"** | 9500 mL | **9.5"** | 13250 mL | **After 12"** | 1" = 1500 mL |
| **2.5"** | 2750 mL | **5.0"** | 6500 mL | **7.5"** | 10250 mL | **10.0"** | 14000 mL | **Lab min** | 8,000 mL |

# Attachment D: Storm Event Analytical Reports

Report Date: 10/29/2025 14:48

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Samples in this Report

| Lab ID | Sample | Sample Description | Matrix | Qualifiers | Sampled | Received |
|---|---|---|---|---|---|---|
| AC00445-01 | ACST1C | 250929-11-WC | Water | | 9/30/25 3:17 | 9/30/25 6:07 |
| ***Comments:*** | Temperature at receipt, 10.5 degrees C | | | | | |
| AC00445-02 | ACST1C | 250929-14-WC | Water | | 9/30/25 5:24 | 9/30/25 6:07 |
| ***Comments:*** | Temperature at receipt 11.4 degrees C | | | | | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 10/29/2025 14:48

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250929-11-WC |
| Date/Time Collected: | 09/29/2025 22:34 - 09/30/2025 03:17 | | |
| Lab Number: | AC00445-01 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B253239 | 0.409 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 10/07/25 | 10/7/25 11:56 | RCJ | |
| BOD5 | B253163 | 39.6 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 09/30/25 | 10/5/25 10:48 | ASE | |
| Chloride | B253426 | 5.11 | mg/L | 0.500 | 0.500 | EPA 300.0, Rev. 2.1 (1993) | 10/21/25 | 10/21/25 12:59 | RHC | |
| COD | B253162 | 146 | mg/L | 7.00 | 7.00 | *** DEFAULT SPECIFIC METHOD *** | 09/30/25 | 9/30/25 11:19 | NTS | |
| Nitrate-Nitrite, as N | B253296 | 0.380 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 10/09/25 | 10/9/25 11:50 | JAL | |
| TKN | B253283 | 2.95 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 10/09/25 | 10/10/25 8:42 | JAL | |
| Total Dissolved Solids | B253207 | 80.7 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 10/02/25 | 10/3/25 14:43 | MCB | |
| Total Suspended Solids | B253175 | 159 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 09/30/25 | 9/30/25 9:47 | RCJ | |
| Turbidity | B253184 | 22.0 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 10/01/25 | 10/1/25 7:08 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B253178 | 0.268 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 09/30/25 | 9/30/25 11:45 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B253288 | 0.0229 | ug/L | 6.00E-3 | 6.00E-3 | EPA 245.1 | 10/09/25 | 10/9/25 13:36 | SAS | J |
| Arsenic | B253218 | 3.0 | ug/L | 0.050 | 0.050 | EPA 200.8 | 10/05/25 | 10/8/25 13:43 | DMW | |
| Cadmium | B253218 | 0.093 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/05/25 | 10/8/25 13:43 | DMW | |
| Calcium | B253203 | 8.77 | mg/L | 0.0500 | 0.0500 | EPA 200.7 | 10/02/25 | 10/9/25 11:36 | SMC | |
| Lead | B253218 | 8.4 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/05/25 | 10/8/25 13:43 | DMW | |
| Magnesium | B253203 | 1790 | ug/L | 40.0 | 40.0 | EPA 200.7 | 10/02/25 | 10/9/25 11:36 | SMC | |
| Phosphorus as P | B253203 | 0.541 | mg/L | 0.0110 | 0.0110 | EPA 200.7 | 10/02/25 | 10/9/25 11:36 | SMC | |
| Hardness | B253203 | 29.3 | mg/L | 0.125 | 0.125 | SM 2340 B-2011 | 10/02/25 | 10/9/25 11:36 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B253211 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/03/25 | 10/3/25 15:57 | DMW | U |
| Copper | B253211 | 3.9 | ug/L | 0.14 | 0.14 | EPA 200.8 | 10/03/25 | 10/3/25 15:57 | DMW | |
| Lead | B253211 | 0.21 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 10/03/25 | 10/3/25 15:57 | DMW | |
| Zinc | B253211 | 15.5 | ug/L | 0.50 | 0.50 | EPA 200.8 | 10/03/25 | 10/3/25 15:57 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 10/29/2025 14:48

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Analysis Report

| | | | |
|---|---|---|---|
| Location: | ACST1C | Location Description: | 250929-14-WC |
| Date/Time Collected: | 09/29/2025 22:03 - 09/30/2025 05:24 | | |
| Lab Number: | AC00445-02 | Sample Collector: | K.J |
| Sample Type: | Composite | Sample Matrix: | Water |

| Analyte Name | Batch | Result | Units | Adjusted MDL * | Method MDL | Analysis Method Reference | Prepared | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | | |
| Ammonia, as N | B253239 | 0.695 | mg/L | 0.0450 | 0.0450 | Timberline Ammonia-001 | 10/07/25 | 10/7/25 12:00 | RCJ | |
| BOD5 | B253163 | 46.4 | mg/L | 2.00 | 2.00 | SM 5210 B-2016 | 09/30/25 | 10/5/25 10:45 | ASE | |
| Chloride | B253426 | 6.64 | mg/L | 0.500 | 0.500 | EPA 300.0, Rev. 2.1 (1993) | 10/21/25 | 10/21/25 14:39 | RHC | |
| COD | B253162 | 215 | mg/L | 7.00 | 7.00 | *** DEFAULT SPECIFIC METHOD *** | 09/30/25 | 9/30/25 11:19 | NTS | |
| Nitrate-Nitrite, as N | B253296 | 0.470 | mg/L | 0.0250 | 0.0250 | EPA 353.2, Rev. 2.0 (1993) | 10/09/25 | 10/9/25 11:55 | JAL | |
| TKN | B253157 | 3.38 | mg/L | 0.100 | 0.100 | EPA 351.2, 10-107-06-2-M (Equivalent) | 09/30/25 | 9/30/25 14:26 | ALN | |
| Total Dissolved Solids | B253207 | 87.5 | mg/L | 25.0 | 25.0 | SM 2540 C-2015 | 10/02/25 | 10/3/25 14:46 | MCB | |
| Total Suspended Solids | B253175 | 171 | mg/L | 0.900 | 0.900 | SM 2540 D-2015 | 09/30/25 | 9/30/25 9:58 | RCJ | |
| Turbidity | B253184 | 32.3 | NTU | 0.3 | 0.3 | EPA 180.1, Rev. 2.0 (1993) | 10/01/25 | 10/1/25 7:16 | ALN | |
| **Dissolved Wet Chemistry** | | | | | | | | | | |
| Orthophosphate, as P | B253178 | 0.277 | mg/L | 3.00E-3 | 3.00E-3 | EPA 365.1, Rev. 2.0 (1993) | 09/30/25 | 9/30/25 11:46 | BAK | |
| **Total Metals** | | | | | | | | | | |
| Mercury | B253288 | 0.0249 | ug/L | 6.00E-3 | 6.00E-3 | EPA 245.1 | 10/09/25 | 10/9/25 13:53 | SAS | J |
| Arsenic | B253218 | 3.9 | ug/L | 0.050 | 0.050 | EPA 200.8 | 10/05/25 | 10/8/25 14:01 | DMW | |
| Cadmium | B253218 | 0.18 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/05/25 | 10/8/25 14:01 | DMW | |
| Calcium | B253203 | 10.4 | mg/L | 0.0500 | 0.0500 | EPA 200.7 | 10/02/25 | 10/9/25 11:52 | SMC | |
| Lead | B253218 | 11.7 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/05/25 | 10/8/25 14:01 | DMW | |
| Magnesium | B253203 | 2200 | ug/L | 40.0 | 40.0 | EPA 200.7 | 10/02/25 | 10/9/25 11:52 | SMC | |
| Phosphorus as P | B253203 | 0.637 | mg/L | 0.0110 | 0.0110 | EPA 200.7 | 10/02/25 | 10/9/25 11:52 | SMC | |
| Hardness | B253203 | 35.1 | mg/L | 0.125 | 0.125 | SM 2340 B-2011 | 10/02/25 | 10/9/25 11:52 | SMC | |
| **Dissolved Metals** | | | | | | | | | | |
| Cadmium | B253211 | <0.0100 | ug/L | 0.010 | 0.010 | EPA 200.8 | 10/03/25 | 10/3/25 16:07 | DMW | U |
| Copper | B253211 | 5.3 | ug/L | 0.14 | 0.14 | EPA 200.8 | 10/03/25 | 10/3/25 16:07 | DMW | |
| Lead | B253211 | 0.18 | ug/L | 5.00E-3 | 5.00E-3 | EPA 200.8 | 10/03/25 | 10/3/25 16:07 | DMW | |
| Zinc | B253211 | 31.0 | ug/L | 0.50 | 0.50 | EPA 200.8 | 10/03/25 | 10/3/25 16:07 | DMW | |

* The reported adjusted "MDL" is sample-specific. The analysis MDL as defined by 40 CFR pt 136 App.B. was corrected for dilution, dry weight, or method-defined ML.

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 10/29/2025 14:48

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry** | | | | | | | | | |
| **Batch: B253157** | | | | | | | | | |
| **Blank (B253157-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 09/30/2025 | ALN | U |
| **LCS (B253157-BS1)** | | | | | | | | | |
| TKN | | | 97.2 | 80-120 | | | 09/30/2025 | ALN | |
| **Duplicate (B253157-DUP1)** Source ID: BB05074-01 | | | | | | | | | |
| TKN | | | | | 15.1 | 20 | 09/30/2025 | ALN | D |
| **Matrix Spike (B253157-MS1)** Source ID: BB05074-01 | | | | | | | | | |
| TKN | | | 80.5 | 80-120 | | | 09/30/2025 | ALN | D |
| **Matrix Spike (B253157-MS4)** Source ID: EP00505-02 | | | | | | | | | |
| TKN | | | 95.2 | 80-120 | | | 09/30/2025 | ALN | D |
| **Matrix Spike Dup (B253157-MSD1)** Source ID: BB05074-01 | | | | | | | | | |
| TKN | | | 96.3 | 80-120 | 11.7 | 20 | 09/30/2025 | ALN | D |
| **Batch: B253162** | | | | | | | | | |
| **Blank (B253162-BLK1)** | | | | | | | | | |
| COD | <7 | mg/L | | | | | 09/30/2025 | NTS | U |
| **LCS (B253162-BS1)** | | | | | | | | | |
| COD | | | 99.0 | 90-110 | | | 09/30/2025 | NTS | |
| **Duplicate (B253162-DUP1)** Source ID: AC00445-02 | | | | | | | | | |
| COD | | | | | 9.76 | 10 | 09/30/2025 | NTS | |
| **Batch: B253163** | | | | | | | | | |
| **Blank (B253163-BLK1)** | | | | | | | | | |
| BOD5 | <2 | mg/L | | | | | 10/05/2025 | ASE | Seed-01, U |
| **LCS (B253163-BS1)** | | | | | | | | | |
| BOD5 | | | 101 | 84.6-115.4 | | | 10/05/2025 | ASE | |
| **LCS (B253163-BS2)** | | | | | | | | | |
| BOD5 | | | 106 | 84.6-115.4 | | | 10/05/2025 | ASE | |
| **Duplicate (B253163-DUP1)** Source ID: LS02491-02 | | | | | | | | | |
| BOD5 | | | | | 1.61 | 30 | 10/05/2025 | ASE | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B253175** | | | | | | | | | |
| **Blank (B253175-BLK1)** | | | | | | | | | |
| Total Suspended Solids | <0.9 | mg/L | | | | | 09/30/2025 | RCJ | U |
| **LCS (B253175-BS1)** | | | | | | | | | |
| Total Suspended Solids | | | 97.2 | 90-110 | | | 09/30/2025 | RCJ | |
| **Duplicate (B253175-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Total Suspended Solids | | | | | 13.6 | 20 | 09/30/2025 | RCJ | |
| **Batch: B253184** | | | | | | | | | |
| **Blank (B253184-BLK1)** | | | | | | | | | |
| Turbidity | <0.3 | NTU | | | | | 10/01/2025 | ALN | U |
| **LCS (B253184-BS1)** | | | | | | | | | |
| Turbidity | | | 102 | 90-110 | | | 10/01/2025 | ALN | |
| **Duplicate (B253184-DUP1)** Source ID: AC00445-02 | | | | | | | | | |
| Turbidity | | | | | 0.932 | 25 | 10/01/2025 | ALN | |
| **Batch: B253207** | | | | | | | | | |
| **Blank (B253207-BLK1)** | | | | | | | | | |
| Total Dissolved Solids | <25 | mg/L | | | | | 10/02/2025 | MCB | U |
| **LCS (B253207-BS1)** | | | | | | | | | |
| Total Dissolved Solids | | | 97.3 | 90-110 | | | 10/02/2025 | MCB | |
| **Duplicate (B253207-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Total Dissolved Solids | | | | | 1.03 | 10 | 10/03/2025 | MCB | |
| **Batch: B253239** | | | | | | | | | |
| **Blank (B253239-BLK1)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 10/07/2025 | RCJ | U |
| **Blank (B253239-BLK2)** | | | | | | | | | |
| Ammonia, as N | <0.045 | mg/L | | | | | 10/07/2025 | RCJ | U |
| **LCS (B253239-BS1)** | | | | | | | | | |
| Ammonia, as N | | | 102 | 90-110 | | | 10/07/2025 | RCJ | |
| **LCS (B253239-BS2)** | | | | | | | | | |
| Ammonia, as N | | | 102 | 90-110 | | | 10/07/2025 | RCJ | |
| **Duplicate (B253239-DUP1)** Source ID: BB05074-01 | | | | | | | | | |
| Ammonia, as N | | | | | 1.28 | 20 | 10/07/2025 | RCJ | |
| **Duplicate (B253239-DUP2)** Source ID: WB04007-06 | | | | | | | | | |
| Ammonia, as N | | | | | 1.15 | 20 | 10/07/2025 | RCJ | D |
| **Matrix Spike (B253239-MS1)** Source ID: BB05074-01 | | | | | | | | | |
| Ammonia, as N | | | 98.0 | 84-115 | | | 10/07/2025 | RCJ | |
| **Matrix Spike (B253239-MS2)** Source ID: WB04007-06 | | | | | | | | | |
| Ammonia, as N | | | 99.7 | 84-115 | | | 10/07/2025 | RCJ | D |
| **Matrix Spike (B253239-MS3)** Source ID: EP00505-02 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 10/07/2025 | RCJ | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B253239 (Continued)** | | | | | | | | | |
| **Matrix Spike (B253239-MS4)** Source ID: EP00506-01 | | | | | | | | | |
| Ammonia, as N | | | 99.1 | 84-115 | | | 10/07/2025 | RCJ | D |
| **Matrix Spike (B253239-MS5)** Source ID: EP00506-02 | | | | | | | | | |
| Ammonia, as N | | | 103 | 84-115 | | | 10/07/2025 | RCJ | D |
| **Matrix Spike Dup (B253239-MSD1)** Source ID: BB05074-01 | | | | | | | | | |
| Ammonia, as N | | | 100 | 84-115 | 1.82 | 20 | 10/07/2025 | RCJ | |
| **Matrix Spike Dup (B253239-MSD2)** Source ID: WB04007-06 | | | | | | | | | |
| Ammonia, as N | | | 98.5 | 84-115 | 0.819 | 20 | 10/07/2025 | RCJ | D |
| **Batch: B253283** | | | | | | | | | |
| **Blank (B253283-BLK1)** | | | | | | | | | |
| TKN | <0.1 | mg/L | | | | | 10/10/2025 | JAL | U |
| **LCS (B253283-BS1)** | | | | | | | | | |
| TKN | | | 98.8 | 80-120 | | | 10/10/2025 | JAL | |
| **Duplicate (B253283-DUP1)** Source ID: BB05086-01 | | | | | | | | | |
| TKN | | | | | 0.452 | 20 | 10/10/2025 | JAL | D |
| **Duplicate (B253283-DUP2)** Source ID: WB04007-05 | | | | | | | | | |
| TKN | | | | | 1.88 | 20 | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS1)** Source ID: BB05086-01 | | | | | | | | | |
| TKN | | | 97.3 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS2)** Source ID: WB04007-05 | | | | | | | | | |
| TKN | | | 109 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS3)** Source ID: EP00503-02 | | | | | | | | | |
| TKN | | | 105 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS4)** Source ID: EP00505-03 | | | | | | | | | |
| TKN | | | 105 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS5)** Source ID: EP00506-01RE1 | | | | | | | | | |
| TKN | | | 101 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike (B253283-MS6)** Source ID: EP00506-02 | | | | | | | | | |
| TKN | | | 97.9 | 80-120 | | | 10/10/2025 | JAL | D |
| **Matrix Spike Dup (B253283-MSD1)** Source ID: BB05086-01 | | | | | | | | | |
| TKN | | | 103 | 80-120 | 2.74 | 20 | 10/10/2025 | JAL | D |
| **Matrix Spike Dup (B253283-MSD2)** Source ID: WB04007-05 | | | | | | | | | |
| TKN | | | 112 | 80-120 | 1.09 | 20 | 10/10/2025 | JAL | D |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B253296** | | | | | | | | | |
| **Blank (B253296-BLK1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 10/09/2025 | JAL | U |
| **Blank (B253296-BLK2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 10/09/2025 | JAL | U |
| **Blank (B253296-BLK3)** | | | | | | | | | |
| Nitrate-Nitrite, as N | <0.025 | mg/L | | | | | 10/09/2025 | JAL | U |
| **LCS (B253296-BS1)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 96.5 | 90-110 | | | 10/09/2025 | JAL | |
| **LCS (B253296-BS2)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 103 | 90-110 | | | 10/09/2025 | JAL | |
| **LCS (B253296-BS3)** | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 103 | 90-110 | | | 10/09/2025 | JAL | |
| **Duplicate (B253296-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.517 | 10 | 10/09/2025 | JAL | |
| **Duplicate (B253296-DUP2)** Source ID: BB05086-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 3.62 | 10 | 10/09/2025 | JAL | |
| **Duplicate (B253296-DUP3)** Source ID: EP00501-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | NR | 10 | 10/09/2025 | JAL | U |
| **Duplicate (B253296-DUP4)** Source ID: WB04007-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.129 | 10 | 10/09/2025 | JAL | |
| **Duplicate (B253296-DUP5)** Source ID: BB05070-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | | | 0.162 | 10 | 10/09/2025 | JAL | |
| **Matrix Spike (B253296-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.2 | 90-110 | | | 10/09/2025 | JAL | |
| **Matrix Spike (B253296-MS2)** Source ID: BB05086-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 100 | 90-110 | | | 10/09/2025 | JAL | |
| **Matrix Spike (B253296-MS3)** Source ID: EP00501-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 105 | 90-110 | | | 10/09/2025 | JAL | |
| **Matrix Spike (B253296-MS4)** Source ID: WB04007-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 108 | 90-110 | | | 10/09/2025 | JAL | |
| **Matrix Spike (B253296-MS5)** Source ID: BB05070-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | | | 10/09/2025 | JAL | |
| **Matrix Spike Dup (B253296-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 97.5 | 90-110 | 0.186 | 10 | 10/09/2025 | JAL | |
| **Matrix Spike Dup (B253296-MSD2)** Source ID: BB05086-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 102 | 90-110 | 1.17 | 10 | 10/09/2025 | JAL | |
| **Matrix Spike Dup (B253296-MSD3)** Source ID: EP00501-01 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 106 | 90-110 | 0.496 | 10 | 10/09/2025 | JAL | |
| **Matrix Spike Dup (B253296-MSD4)** Source ID: WB04007-06 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 107 | 90-110 | 0.0566 | 10 | 10/09/2025 | JAL | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Wet Chemistry (Continued)** | | | | | | | | | |
| **Batch: B253296 (Continued)** | | | | | | | | | |
| **Matrix Spike Dup (B253296-MSD5)** Source ID: BB05070-02 | | | | | | | | | |
| Nitrate-Nitrite, as N | | | 99.9 | 90-110 | 1.40 | 10 | 10/09/2025 | JAL | |
| **Batch: B253426** | | | | | | | | | |
| **Blank (B253426-BLK1)** | | | | | | | | | |
| Chloride | <0.5 | mg/L | | | | | 10/21/2025 | RHC | U |
| **Blank (B253426-BLK2)** | | | | | | | | | |
| Chloride | <0.5 | mg/L | | | | | 10/21/2025 | RHC | U |
| **Blank (B253426-BLK3)** | | | | | | | | | |
| Chloride | <0.5 | mg/L | | | | | 10/22/2025 | RHC | U |
| **LCS (B253426-BS1)** | | | | | | | | | |
| Chloride | | | 97.9 | 90-110 | | | 10/21/2025 | RHC | |
| **Duplicate (B253426-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Chloride | | | | | 0.924 | 10 | 10/21/2025 | RHC | |
| **Duplicate (B253426-DUP2)** Source ID: BB05139-04 | | | | | | | | | |
| Chloride | | | | | 0.0951 | 10 | 10/22/2025 | RHC | D |
| **Matrix Spike (B253426-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Chloride | | | 98.3 | 90-110 | | | 10/21/2025 | RHC | |
| **Matrix Spike (B253426-MS2)** Source ID: BB05139-04 | | | | | | | | | |
| Chloride | | | 96.3 | 90-110 | | | 10/22/2025 | RHC | D |
| **Matrix Spike Dup (B253426-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Chloride | | | 96.1 | 90-110 | 1.83 | 10 | 10/21/2025 | RHC | |
| **Matrix Spike Dup (B253426-MSD2)** Source ID: BB05139-04 | | | | | | | | | |
| Chloride | | | 96.7 | 90-110 | 0.351 | 10 | 10/22/2025 | RHC | D |
| **Dissolved Wet Chemistry** | | | | | | | | | |
| **Batch: B253178** | | | | | | | | | |
| **Blank (B253178-BLK1)** | | | | | | | | | |
| Orthophosphate, as P | <0.003 | mg/L | | | | | 09/30/2025 | BAK | U |
| **LCS (B253178-BS1)** | | | | | | | | | |
| Orthophosphate, as P | | | 95.6 | 90-110 | | | 09/30/2025 | BAK | |
| **Duplicate (B253178-DUP1)** Source ID: DX00337-01 | | | | | | | | | |
| Orthophosphate, as P | | | | | 0.851 | 10 | 09/30/2025 | BAK | |
| **Matrix Spike (B253178-MS1)** Source ID: DX00337-01 | | | | | | | | | |
| Orthophosphate, as P | | | 103 | 90-110 | | | 09/30/2025 | BAK | |
| **Matrix Spike Dup (B253178-MSD1)** Source ID: DX00337-01 | | | | | | | | | |
| Orthophosphate, as P | | | 102 | 90-110 | 0.450 | 10 | 09/30/2025 | BAK | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | | | |
| **Batch: B253203** | | | | | | | | | |
| **Blank (B253203-BLK1)** | | | | | | | | | |
| Calcium | <0.05 | mg/L | | | | | 10/09/2025 | SMC | U |
| Magnesium | <40 | ug/L | | | | | 10/09/2025 | SMC | U |
| Phosphorus as P | <0.011 | mg/L | | | | | 10/09/2025 | SMC | U |
| **LCS (B253203-BS1)** | | | | | | | | | |
| Calcium | | | 98.5 | 85-115 | | | 10/09/2025 | SMC | |
| Magnesium | | | 97.6 | 85-115 | | | 10/09/2025 | SMC | |
| Phosphorus as P | | | 105 | 85-115 | | | 10/09/2025 | SMC | |
| **Duplicate (B253203-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Calcium | | | | | 1.45 | 20 | 10/09/2025 | SMC | |
| Magnesium | | | | | 4.96 | 20 | 10/09/2025 | SMC | |
| Phosphorus as P | | | | | 0.163 | 20 | 10/09/2025 | SMC | |
| **Duplicate (B253203-DUP2)** Source ID: ME00405-03 | | | | | | | | | |
| Calcium | | | | | 0.371 | 20 | 10/09/2025 | SMC | |
| Magnesium | | | | | 0.178 | 20 | 10/09/2025 | SMC | |
| Phosphorus as P | | | | | 0.253 | 20 | 10/09/2025 | SMC | |
| **Matrix Spike (B253203-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Calcium | | | 98.5 | 70-130 | | | 10/09/2025 | SMC | |
| Magnesium | | | 97.6 | 70-130 | | | 10/09/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | | | 10/09/2025 | SMC | |
| **Matrix Spike (B253203-MS2)** Source ID: ME00405-03 | | | | | | | | | |
| Calcium | | | 97.3 | 70-130 | | | 10/09/2025 | SMC | |
| Magnesium | | | 96.2 | 70-130 | | | 10/09/2025 | SMC | |
| Phosphorus as P | | | 107 | 70-130 | | | 10/09/2025 | SMC | |
| **Matrix Spike Dup (B253203-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Calcium | | | 98.6 | 70-130 | 0.0296 | 20 | 10/09/2025 | SMC | |
| Magnesium | | | 97.2 | 70-130 | 0.330 | 20 | 10/09/2025 | SMC | |
| Phosphorus as P | | | 106 | 70-130 | 0.0610 | 20 | 10/09/2025 | SMC | |
| **Matrix Spike Dup (B253203-MSD2)** Source ID: ME00405-03 | | | | | | | | | |
| Calcium | | | 96.4 | 70-130 | 0.315 | 20 | 10/09/2025 | SMC | |
| Magnesium | | | 95.2 | 70-130 | 0.661 | 20 | 10/09/2025 | SMC | |
| Phosphorus as P | | | 107 | 70-130 | 0.230 | 20 | 10/09/2025 | SMC | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
**(Continued)**

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Total Metals (Continued)** | | | | | | | | | |
| **Batch: B253218** | | | | | | | | | |
| **Blank (B253218-BLK1)** | | | | | | | | | |
| Arsenic | <0.050 | ug/L | | | | | 10/08/2025 | DMW | U |
| Cadmium | <0.010 | ug/L | | | | | 10/08/2025 | DMW | U |
| Lead | <0.010 | ug/L | | | | | 10/08/2025 | DMW | U |
| **LCS (B253218-BS1)** | | | | | | | | | |
| Arsenic | | | 96.5 | 85-115 | | | 10/08/2025 | DMW | |
| Cadmium | | | 97.2 | 85-115 | | | 10/08/2025 | DMW | |
| Lead | | | 102 | 85-115 | | | 10/08/2025 | DMW | |
| **Duplicate (B253218-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Arsenic | | | | | 3.66 | 20 | 10/08/2025 | DMW | |
| Cadmium | | | | | 4.43 | 20 | 10/08/2025 | DMW | |
| Lead | | | | | 4.79 | 20 | 10/08/2025 | DMW | |
| **Matrix Spike (B253218-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Arsenic | | | 95.7 | 70-130 | | | 10/08/2025 | DMW | |
| Cadmium | | | 97.8 | 70-130 | | | 10/08/2025 | DMW | |
| Lead | | | 98.8 | 70-130 | | | 10/08/2025 | DMW | |
| **Matrix Spike Dup (B253218-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Arsenic | | | 95.1 | 70-130 | 0.482 | 20 | 10/08/2025 | DMW | |
| Cadmium | | | 97.9 | 70-130 | 0.0171 | 20 | 10/08/2025 | DMW | |
| Lead | | | 99.5 | 70-130 | 0.389 | 20 | 10/08/2025 | DMW | |
| **Batch: B253288** | | | | | | | | | |
| **Blank (B253288-BLK1)** | | | | | | | | | |
| Mercury | <0.006 | ug/L | | | | | 10/09/2025 | SAS | U |
| **LCS (B253288-BS1)** | | | | | | | | | |
| Mercury | | | 102 | 85-115 | | | 10/09/2025 | SAS | |
| **Duplicate (B253288-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Mercury | | | | | 1.47 | 20 | 10/09/2025 | SAS | J |
| **Duplicate (B253288-DUP2)** Source ID: LS02508-07 | | | | | | | | | |
| Mercury | | | | | 5.04 | 20 | 10/09/2025 | SAS | J |
| **Matrix Spike (B253288-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Mercury | | | 97.6 | 70-130 | | | 10/09/2025 | SAS | |
| **Matrix Spike (B253288-MS2)** Source ID: LS02508-07 | | | | | | | | | |
| Mercury | | | 106 | 70-130 | | | 10/09/2025 | SAS | |
| **Matrix Spike Dup (B253288-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Mercury | | | 101 | 70-130 | 2.51 | 20 | 10/09/2025 | SAS | |
| **Matrix Spike Dup (B253288-MSD2)** Source ID: LS02508-07 | | | | | | | | | |
| Mercury | | | 90.7 | 70-130 | 12.5 | 20 | 10/09/2025 | SAS | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

# Quality Control Report
(Continued)

| Analyte Name | Method Blank | Units | % Recovery | Recovery Limits | RPD | RPD Limit | Analyzed | Analyst Initials | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Metals** | | | | | | | | | |
| **Batch: B253211** | | | | | | | | | |
| **Blank (B253211-BLK1)** | | | | | | | | | |
| Cadmium | <0.010 | ug/L | | | | | 10/03/2025 | DMW | U |
| Copper | <0.14 | ug/L | | | | | 10/03/2025 | DMW | U |
| Lead | <0.0050 | ug/L | | | | | 10/03/2025 | DMW | U |
| Zinc | <0.50 | ug/L | | | | | 10/03/2025 | DMW | U |
| **LCS (B253211-BS1)** | | | | | | | | | |
| Cadmium | | | 96.1 | 85-115 | | | 10/03/2025 | DMW | |
| Copper | | | 102 | 85-115 | | | 10/03/2025 | DMW | |
| Lead | | | 96.3 | 85-115 | | | 10/03/2025 | DMW | |
| Zinc | | | 108 | 85-115 | | | 10/03/2025 | DMW | |
| **Duplicate (B253211-DUP1)** Source ID: AC00445-01 | | | | | | | | | |
| Cadmium | | | | | NR | 10 | 10/03/2025 | DMW | U |
| Copper | | | | | 0.279 | 10 | 10/03/2025 | DMW | |
| Lead | | | | | 1.09 | 10 | 10/03/2025 | DMW | |
| Zinc | | | | | 0.818 | 10 | 10/03/2025 | DMW | |
| **Matrix Spike (B253211-MS1)** Source ID: AC00445-01 | | | | | | | | | |
| Cadmium | | | 92.5 | 70-130 | | | 10/03/2025 | DMW | |
| Copper | | | 95.7 | 70-130 | | | 10/03/2025 | DMW | |
| Lead | | | 91.0 | 70-130 | | | 10/03/2025 | DMW | |
| Zinc | | | 96.7 | 70-130 | | | 10/03/2025 | DMW | |
| **Matrix Spike Dup (B253211-MSD1)** Source ID: AC00445-01 | | | | | | | | | |
| Cadmium | | | 93.5 | 70-130 | 0.995 | 10 | 10/03/2025 | DMW | |
| Copper | | | 97.2 | 70-130 | 1.18 | 10 | 10/03/2025 | DMW | |
| Lead | | | 92.1 | 70-130 | 1.15 | 10 | 10/03/2025 | DMW | |
| Zinc | | | 96.6 | 70-130 | 0.0654 | 10 | 10/03/2025 | DMW | |

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

Report Date: 10/29/2025 14:48

Boise City Public Works
Water Quality Laboratory
11818 Joplin Road
Boise, Idaho 83714-1076
Telephone (208) 608-7240
Fax (208) 608-7319

## Notes and Definitions

| Item | Definition |
|---|---|
| D | Data reported from a dilution |
| J | Estimated value |
| Seed-01 | The seed depletion is greater than that recommended by the method. The LCS is acceptable showing the seed supports the method. |
| U | Analyte included in the analysis, but not detected |
| NR | No result for this parameter. |

### Method Reference Acronyms

| | |
|---|---|
| Colilert | Colilert, IDEXX Laboratories, Inc. |
| EPA | Manual of Methods for Chemical Analysis of Water and Wastes, USEPA |
| GS | USGS Techniques of Water-Resources Investigations |
| HH | Hach Spectrophotometer Procedures Manual |
| SM | Standard Methods for the Examination of Water and Wastewater |
| SW | Test methods for Evaluating Solid Waste, SW-846 |

Stephen Quintero or Azubike Emenari
***QA/QC Coordinator***

Leslea Basterrechea
***Water Quality Laboratory Manager***

*The contents of this report apply to the sample(s) analyzed in accordance with the Chain of Custody document.*
*No duplication of this report is allowed, except in its entirety*

## Ada County Highway District

ACHD

Attn: Steven Turner
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 407–4284

**Purchase Order:** 63069586

**Project:** Stormwater PI

Sampler(s): Kristen Jolliffe
Steven Turner

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix: Water | Type: Grab | Type: Composite | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg – EPA 245.1 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - SM 2340 B-2011 | $NO_3$+$NO_2$ - EPA 353.2 | Timberline Ammonia-001 | Chloride – EPA 300.0 | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACQ0415-01 | 9/29/25 | 9/30/25 | 2234 | 0317 | 250929-11-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 6 |
| ↓ -02 | 1 | 1 | 2203 | 0524 | 250929-14-WC | KJ | X | | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

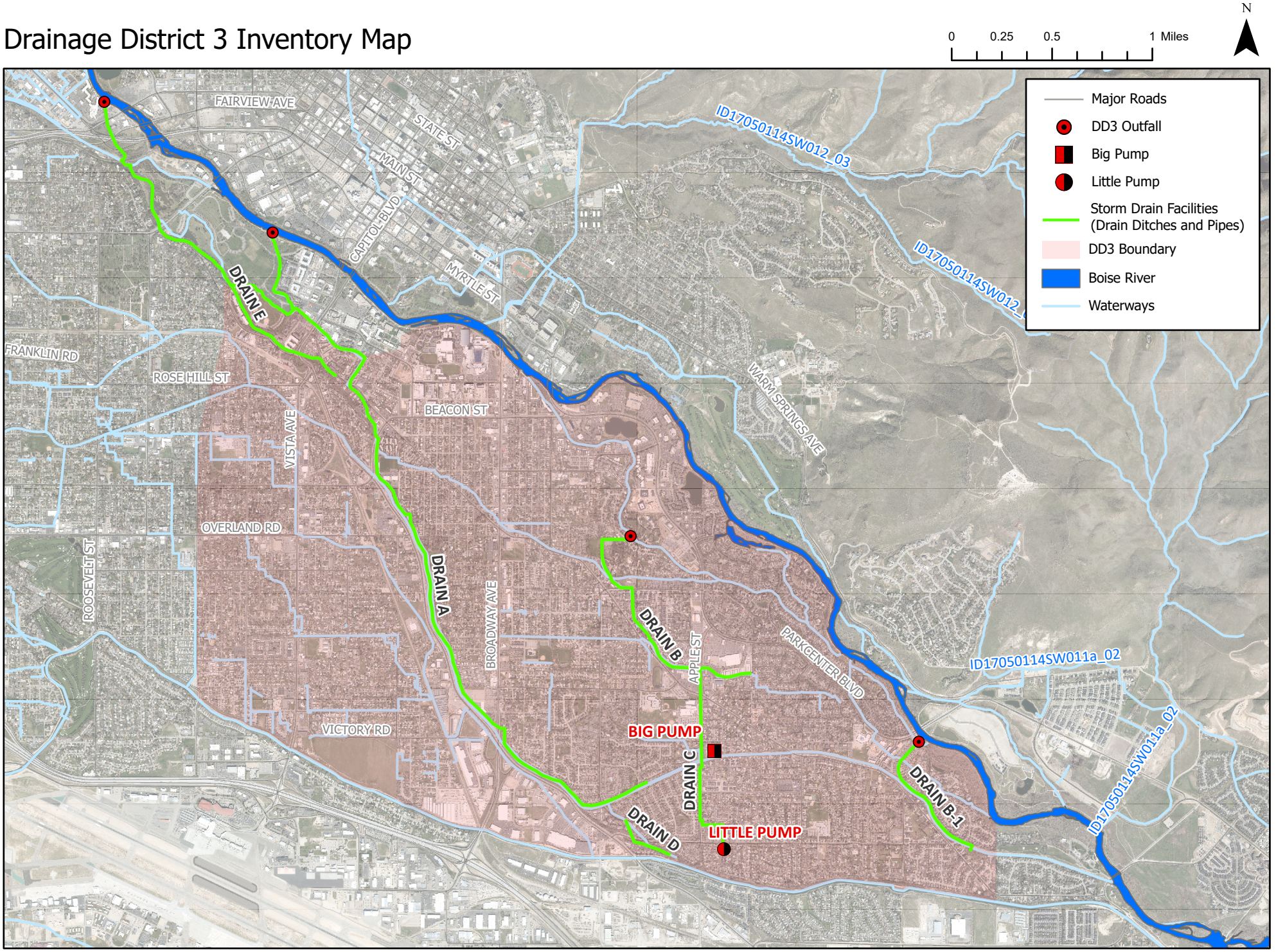
| Relinquished by (sign) | Date &Time Transferred | Received by (sign) | Comments/ Special Instructions |
|---|---|---|---|
| Kristen Jolliffe | 9/30/25 0607 | [signature] 09/30/25 0607 | 250929-11-WC - 10.5°C<br>250929-14-WC 11.4°C |

241010 ST

ACQ0415

# 2025 Attachment D - MS4 Map and Outfall Inventory

# Drainage District 3 Inventory Map



# 2025 Attachment E - 2025 DD3 Dry Weather Testing

# Outfall Screening Summary

## Outfall Name: Drain A

| | | | | | |
|---|---|---|---|---|---|
| **Receiving Waters:** Boise River | **Pipe Type:** Open Ditch<br>**Pipe Size:** 105” | | | **Lat:** 43.611610<br>**Long:** -116.216519 | |
| **Date:** 06/10/2025<br>**Personnel:** KJ, JM | **Comments:**<br>Open ditch with a gravel bottom. Flow was 105 inches wide divided into three, 35-inch sections to collect flow rate data. An *E. coli* result of 410.6 MPN/100mL exceeded the ACHD benchmark of 410 MPN/100mL, triggering a geometric mean. DO and pH results are below the ACHD benchmarks of >6.0mg/L and 6.5 - 9, respectively. | | | | |
| **Structural Condition** | Good | | | | |
| **Sedimentation** | Rocky bottom | | | | |
| **Staining** | None | | | | |
| **Odor** | None | | | | |
| **Vegetation** | Typical | | | | |
| **Floatables (Not Trash)** | None | | | | |
| **Trash Observed** | None | **Trash Rank** | -- | **Trash Source** | -- |
| **Flow** | Yes | **Amount** | Substantial | **Flow Rate(cfs)** | See flow rate data |

**Flow Rate Data:**

| | **Section 1** | **Section 2** | **Section 3** |
|---|---|---|---|
| **Velocity (ft/s)** | 1.4 | 1.2 | 1.0 |
| **Depth (ft)** | 1.5 | 2 | 1.5 |

**Results:**

| **Temp (C)** | **DO (mg/L)** | **pH (S.U.)** | **Cond (uS/cm)** | **Chlorine** | **Copper** | **Phenols** | **Turbidity (NTU)** |
|---|---|---|---|---|---|---|---|
| 15.92 | 4.268 | 6.081 | 92.46 | <0.1 | <0.1 | <0.1 | 2.99 |

| ***E. coli* (MPN/100 mL)** | **TSS (mg/L)** | **ORP (mg/L)** | **Total P (mg/L)** | **Detergents (mg/L)** |
|---|---|---|---|---|
| 253.4[1] | 5.93 | 0.0191 | 0.0451 | 0.01 |

Note:

[1] Result is the geometric mean of five *E. coli* samples.

| **Outfall Name**: | **Date**: | ***E. coli* (MPN/100 mL):** |
|---|---|---|
| Drain A | 06/10/2025 | 410.6 |
| | 06/18/2025 | 185.0 |
| | 06/26/2025 | 307.6 |
| | 07/03/2025 | 137.4 |
| | 07/10/2025 | 325.5 |
| **Geometric Mean of *E. coli* (MPN/100 mL)** | | 253.4 |

| **Illicit Discharge?** | Unlikely |
|---|---|



**Photo 1:** Cross section where measurements and samples were collected.

# 2025 Attachment F- CSDC Enforcement Response Policy ACHD

# Illicit Discharge Detection and Elimination
# ENFORCEMENT RESPONSE POLICY

**ADA COUNTY HIGHWAY DISTRICT**
**3775 ADAMS STREET**
**GARDEN CITY IDAHO 83714**
**PHONE: 208-387-6264**
**FAX: 208-387-6391**

**(September 2024)**

# TABLE OF CONTENTS

ACRONYMS ..... II

1. INTRODUCTION ..... 1

1.1 PURPOSE ..... 1

1.2 ACHD POLICY AND NON-STORMWATER DISCHARGES ..... 1

2. LEGAL AUTHORITY ..... 2

3. DISCOVERY OF NON-COMPLIANCE ..... 3

4. FACTORS INFLUENCING ENFORCEMENT ACTIONS ..... 4

4.1 FACTORS RELATING TO IMPACT OF THE ILLICIT DISCHARGE ..... 4

4.2 FACTORS RELATING TO RESONSIBLE PARTY ..... 4

5. NOTIFICATION, CORRECTIVE ACTION, AND ENFORCEMENT ..... 4

5.1 INFORMAL NOTIFICATION ..... 4

5.2 FORMAL NOTICE ..... 5

5.3 ADMINISTRATIVE ENFORCEMENT ..... 5

5.4 GENERAL ENFORCEMENT ..... 5

5.5 CIVIL ENFORCEMENT ..... 6

5.6 NONEXCLUSIVITY OF REMEDIES ..... 6

6. JOINT AND/OR OUTSIDE ENFORCEMENT AUTHORITY ..... 6

APPENDIX A – ILLICIT DISCHARGE ERP FLOW CHART ..... 1

APPENDIX B – INTERAGENCY AGREEMENTS FOR THE ENFORCEMENT OF STORMWATER MANAGEMENT ..... 4

# ACRONYMS

| | |
|---|---|
| ACHD | Ada County Highway District |
| EPA | Environmental Protection Agency |
| ERP | Enforcement Response Policy |
| IDDE | Illicit Discharge Detection Elimination |
| IDEQ | Idaho Department of Environmental Quality |
| ITD | Idaho Transportation Department |
| NPDES | National Pollution Discharge Elimination System |

# 1. INTRODUCTION

This Illicit Discharge Detection and Elimination (IDDE) Enforcement Response Policy (ERP) provides guidance to Ada County Highway District (ACHD) staff who respond to non-permitted, non-stormwater discharges such as illegal dumping and illegal connections to the storm drain system. The following document outlines the IDDE Program, ACHD's legal authority, staff roles and duties, factors influencing enforcement actions, and type of enforcement actions and processes. The approach described in this document is based on a tiered system of enforcement.

## 1.1 PURPOSE

ACHD implements and enforces the IDDE Program throughout Ada County to fulfill National Pollutant Discharge Elimination System (NPDES) Permit (Permit) requirements. ACHD is regulated through a Phase I Permit (IDS027561) that covers the Boise and Garden City area and a Phase II Permit (IDS0281185) that covers the urbanized areas of the cities of Eagle, Meridian, and unincorporated Ada County. To comply with the Permits, ACHD must maintain relevant regulatory mechanisms to control pollutant discharges into and from its Municipal separate Storm Sewer System (MS4) and develop a written policy of enforcement escalation procedures for recalcitrant or repeat offenders. The ERP must:

- Authorize ACHD to control and respond to the discharge of spills into the MS4, to the extent allowable under Idaho state law (NPDES Permit 3.2.3.1).
- Authorize ACHD to prohibit illicit connections, and the dumping or disposal of material other than stormwater, into the MS4 (NPDES Permit 3.2.3.2).
- Authorize ACHD to prohibit, and eliminate, at a minimum, pollutant discharges from specific pollutant sources detailed in NPDES Permit 3.2.3.3.

## 1.2 ACHD POLICY AND NON-STORMWATER DISCHARGES

ACHD implements the IDDE Program through ACHD Policy (Policy) 8000, Drainage and Stormwater Management, and Policy 8300, Construction Site Discharge Control (CSDC) Program. ACHD has developed a classification system that organizes non-stormwater discharges into three categories: Allowable Discharges, Conditionally Allowable Discharges and Prohibited Discharges. Examples of discharge types that fit into each category are listed in Table 1. Most Conditionally Allowable Discharges are only allowed through an approved Dewatering Permit implemented through the CSDC Program. This category of discharge usually involves additional Best Management Practices and oversight to prevent a pollutant discharge. Non-stormwater discharges to the storm drain system must comply with the standards outlined in Policy 8015.2.

An Illicit discharge to ACHD's storm drain system may come in the form of an intentional inappropriate disposal of waste, excess, or unwanted materials or an unapproved direct connection to the storm drain system. Specifically, an Illicit

Connection is any physical connections to the storm drain system which has not been permitted…(Policy 8004.14). Additionally Illicit Discharges are any discharge to a stormwater facility not composed entirely of stormwater except discharges allowed pursuant to an NPDES Permit (Policy 8004.15).

## 2. LEGAL AUTHORITY

| Table 1. Categories of Non-Stormwater Discharges | | |
|---|---|---|
| Allowable Discharges | Conditionally Allowable Discharges | Prohibited Discharges |
| • Landscape Irrigation Surface Flows<br>• Washwaters (no soaps, solvents, or detergents)<br>• Non-turbid Groundwater or Springwater<br>• Dechlorinated Swimming Pool and Spa Waters<br>• Discharges from Emergency Firefighting Activities | • Construction Dewatering<br>• Waterline Flushing<br>• Utility Vault Dewatering | • Hyper-chlorinated waterline flushing<br>• Wastewater from washout and cleanout of concrete, stucco, paint, form release oils, and other construction materials<br>• Fuels, oils, or other Pollutants used in vehicle or equipment operation and maintenance<br>• Soaps, solvents, or detergents<br>• Toxic or hazardous substances from a spill or other release |

ACHD is the governing agency responsible for construction and maintenance of all local roads, including the storm drain system, in Ada County, Idaho. ACHD's legal authority is based upon the laws of the State of Idaho. Specific authority is found in Title 40, Idaho Code, Chapters 13 and 14 https://legislature.idaho.gov/statutesrules/idstat/title40/. Because of the limited purpose of ACHD, as defined by the State Code, such legal authorities and provisions are interpreted as intended for facilities and operation and maintenance within the jurisdictional right-of-way of ACHD. ACHD does not provide police or enforcement power and must rely on the powers of municipal government. Specific legal authority granted to ACHD through state code includes the following:

- **Powers and Duties of Highway Commissioners, Idaho Code 40-1406** ACHD Commissioners are empowered to pass ordinances, rules, and regulations as necessary for carrying into effect or discharging all powers and duties conferred to a Countywide highway district by state code. https://legislature.idaho.gov/statutesrules/idstat/title40/t40ch14/

- **Drainage Authority, Idaho Code 40-1451(1)(d)**
  ACHD has authority over drainage where it is necessary for motorist safety or necessary for right-of-way maintenance. This code provision limits the extent and nature of authority in which ACHD is empowered.
  https://legislature.idaho.gov/statutesrules/idstat/title40/t40ch14/
- **Common Law Authority**
  ACHD has certain common law authority to control discharges of stormwater into any storm drains which are located within the public right-of-way by means of ACHD's control and owner's interest in the public right-of-way.
- **Authority as a Municipal Corporation**
  ACHD may have certain inherent authority as a municipal corporation by virtue of its ordinance authority to regulate discharges of stormwater into ACHD's stormwater system.

## 3. DISCOVERY OF NON-COMPLIANCE

ACHD has dedicated staff that actively search for illicit discharges through routine storm drain investigation and storm drain monitoring. Illicit discharge identification and response training is provided annually to all field staff. Additionally, ACHD staff may receive illicit discharge complaints from the public or by referral from other agencies. Outside agencies and departments who observe a possible illicit discharge may contact ACHD administrative staff or ACHD Environmental staff directly to report an issue.

To report an illicit discharge, the public is encouraged to call ACHD directly during business hours, visit ACHD's website to use the "Report an Issue" tool, call the Stormwater Pollution Hotline at 208-395-8888, or call 911. The Stormwater Pollution Hotline is a 24/7 answering service dedicated to accepting calls from the public, collecting pertinent information, and notifying the appropriate agency for follow-up action.

During normal business hours, Monday – Friday 8am – 4:30pm, ACHD Environmental staff will initiate the illicit discharge investigation and pursue follow-up actions or referral to another agency as needed. If the illicit discharge complaint is received outside of normal business hours, the Maintenance On-Call Supervisor will respond in accordance with the *ACHD Spill Response Plan*. Investigation and follow-up actions will be addressed by ACHD Environmental staff during normal business hours as needed.

According to ACHD's NPDES Permits, ACHD must investigate all reports of illicit discharges as soon as possible, but no later than within two working days (NPDES Permit 3.2.4.2). Investigation of an illicit discharge includes incident verification, evaluation of impact to the storm drain system and downstream waterways, determination of the responsible party, communication with appropriate agencies, cleanup coordination, and documentation and reporting. Additional response may be conducted as needed by the ACHD Environmental Department to characterize the illicit discharge, trace the discharge to it source, coordination with appropriate

parties to eliminate the illicit discharge, and provide education and outreach. Regardless of who initiates the investigation, all available information and photos/videos are sent to the Environmental Department for reporting and additional follow-up as needed.

# 4. FACTORS INFLUENCING ENFORCEMENT ACTIONS

The approach to making an illicit discharge determination involves using the language in Policy and/or permit conditions as a guide to determine whether the information collected demonstrates that an illicit discharge has occurred. Determination of the appropriate enforcement action is based on the nature and severity of the illicit discharge. Factors relating to the impact of the illicit discharge and to the responsible party are summarized in Section 4.1 and Section 4.2, respectively.

## 4.1 FACTORS RELATING TO IMPACT OF THE ILLICIT DISCHARGE

- Magnitude of the illicit discharge (e.g. number of storm drain structures and pipes impacted).
- Imminent endangerment to human health/welfare or to the environment.
- Duration of the violation.
- Effect of the violation on the receiving water.

## 4.2 FACTORS RELATING TO RESONSIBLE PARTY

- History of illicit discharges by the responsible party.
- History of communication, education, and outreach with the responsible party.
- Good faith of the responsible party.
- Cooperation in remedying the problem coupled with actions that support intention.

# 5. NOTIFICATION, CORRECTIVE ACTION, AND ENFORCEMENT

In the event of a verified illicit discharge, ACHD shall proceed with notification, corrective action and enforcement in accordance with ACHD Policy 8015.2.5 - 8015.2.6. Enforcement actions are situation specific and intended to be commensurate with the factors described in Section 4 of this document. ACHD's enforcement actions are provided in order of escalation in the IDDE ERP flow chart located in *Appendix A*.

## 5.1 INFORMAL NOTIFICATION

ACHD shall informally contact the responsible party for illicit discharge situations. An Informal Notice may be conducted verbally or non-verbally (e.g., during an investigation, over a telephone call, in an informal meeting, or through email). Informal Notices should include:

1) Notifying the responsible party of the illicit activity;
2) Providing general stormwater and storm drain system education;
3) Requesting action(s) needed to remedy the situation; and
4) Specifying a deadline for completing the activities.

### 5.2 FORMAL NOTICE

A Formal Notice is needed when legal support is needed to address an illicit discharge situation. Illicit discharge situations that may warrant formal notice include non-participation from the responsible party and limited to no support from local authorities. A Formal Notice is a written letter from ACHD's Legal Department to the responsible party to include the name and address of the responsible party, the observed illicit discharge, the date and time of the illicit discharge observations, the location, corrective action(s) required, deadline for required corrective action, follow-up action in response to failure to cooperate, and a signature from ACHD's Legal Department.

### 5.3 ADMINISTRATIVE ENFORCEMENT

ACHD will request the responsible party eliminate the discharge and remedy any impacts to the storm drain system and environment within the right-of-way. When the responsible party is not cooperative in correcting an illicit discharge or when the situation involves private property, ACHD will work with appropriate local agencies to require the responsible party to implement corrective actions. Administrative Enforcement may include:

1) Education – provide general stormwater and storm drain information.
2) Cease and Desist Order – stop all activities leading to the illicit discharge and locate and eliminate illicit connection(s) to the storm drain system.
3) Notice to Clean - properly clean and dispose of illicit discharge material contaminating the surface (streets and sidewalk), soils, the storm drain system, and downstream waterways.

### 5.4 GENERAL ENFORCEMENT

When the responsible party fails to participate in corrective actions within a timely manner or the responsible party is unknown, ACHD will implement corrective action and use any and all legal means available to recover the associated costs from the responsible party. ACHD corrective action will include contracting with an environmental cleanup service to:

1) Sample and characterize the illicit discharge.
2) Properly clean and dispose of material from the contaminated areas to include the surface (streets and sidewalk), soils, storm drain system, and downstream waterways.
3) Provide ACHD with a summary of cleanup actions, photos/video, a waste manifest, and project invoicing.

ACHD will pursue restitution of any expenses incurred related to corrective action to include staff time, equipment, contractor services, etc.

### 5.5 CIVIL ENFORCEMENT

In addition to General Enforcement, ACHD may enforce civil action through the Court system to grant as appropriate additional penalties as listed in Policy 8015.2.6.ii.A-D. In general, ACHD's interest in Civil Enforcement is to seek restitution for any expenses incurred by ACHD related to the illicit discharge event.

### 5.6 NONEXCLUSIVITY OF REMEDIES

Enforcement remedies listed in Section 5 of this document and Policy 8015.2 are not exclusive and do not limit the opportunity of ACHD or another jurisdiction to pursue additional enforcement remedies.

## 6. JOINT AND/OR OUTSIDE ENFORCEMENT AUTHORITY

The municipal governments of Boise and Garden City do have specific stormwater ordinances related to illicit discharge control to address enforcement authority requirements within their jurisdictions. Additionally, ACHD and the other Phase I NPDES Permittees have Interagency Agreements for the Enforcement of Stormwater Management in Boise City and Garden City included in *Appendix B* of this ERP.

- **City of Boise**
  Ordinance No. 10-6-2 – Discharge Regulations and Requirements
  https://codelibrary.amlegal.com/codes/boiseid/latest/boise_id/0-0-0-13536
- **Garden City**
  Ordinance No. 4-14-5 – Discharge of Pollutants
  https://www.codepublishing.com/ID/GardenCity/#!/GardenCity04/GardenCity0414.html#4-14-5

The municipal governments of Meridian, Eagle, and Ada County do not have specific stormwater ordinances related to illicit discharge. However, these entities do have the following general nuisance related ordinances that can be used to assist ACHD in addressing stormwater related issues.

- **City of Eagle**
  Ordinance No. 4-1-4 – General Nuisance; Procedures and Penalties
  https://codelibrary.amlegal.com/codes/eagleid/latest/eagle_id/0-0-0-1193
- **City of Meridian**
  Ordinance (Chapter 2, 4-2-1) - Public Health and Safety, Nuisances
  https://library.municode.com/id/meridian/codes/code_of_ordinances?nodeId=TIT4PUHESA_CH2NU
- **Ada County**
  Ordinance No. 5-2-4-2B – Deposit of Waste or Lighted Material on Public Ways
  https://codelibrary.amlegal.com/codes/adacountyid/latest/adacounty_id/0-0-0-1423

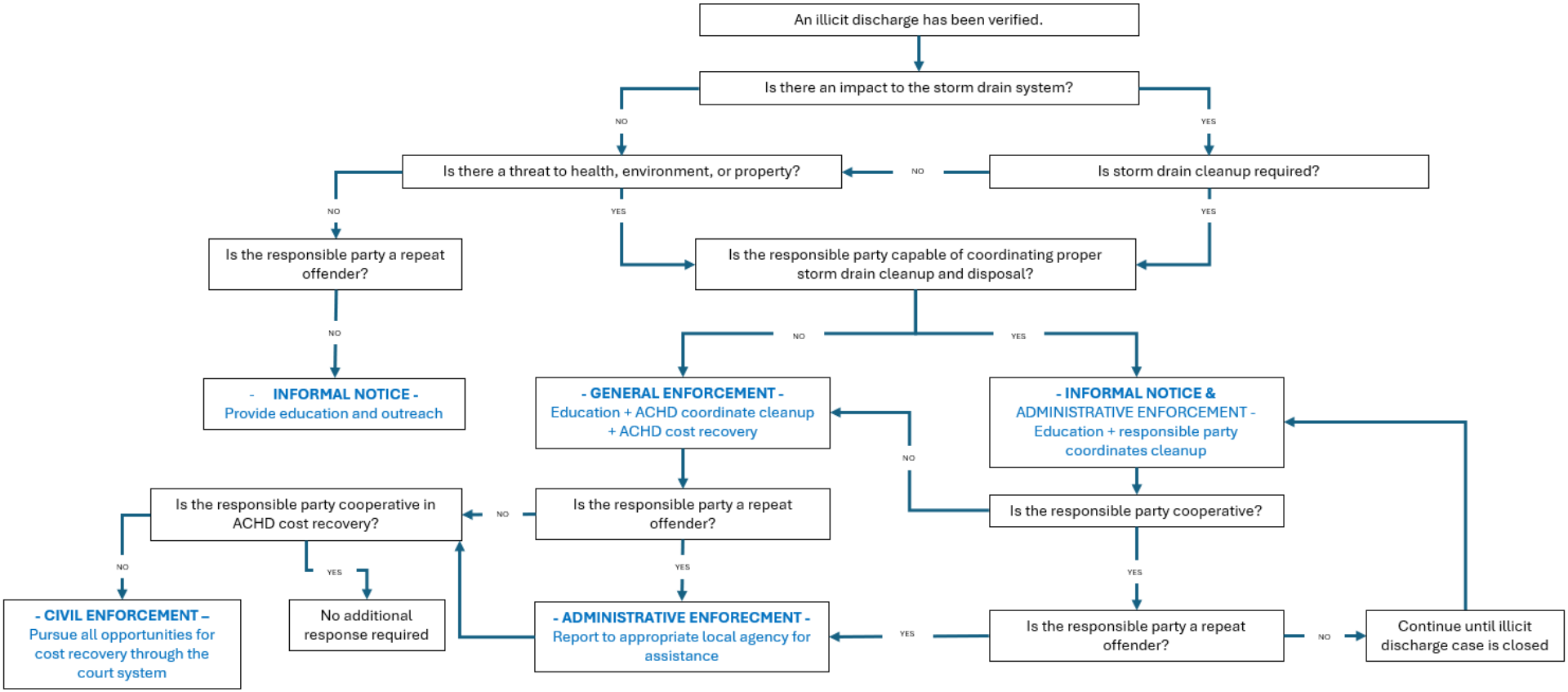
ACHD works with other State and local entities for assistance with illicit discharge response as needed provided in Table 1.

**Table 1. Coordinated Illicit Discharge Response Activities**

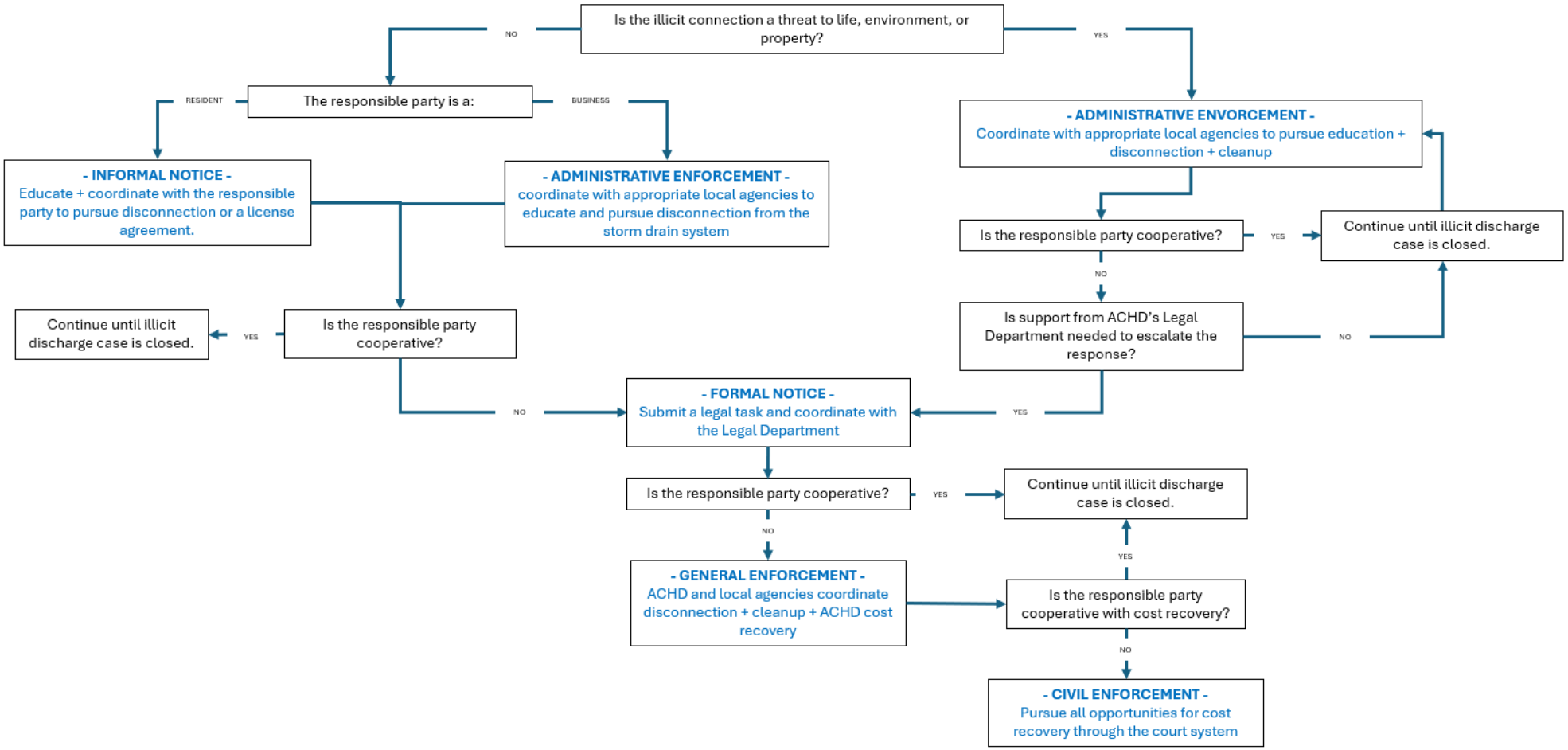
| Agency | Summary of Activities |
|---|---|
| Idaho Department of Environmental Quality | Enforcement assistance in illicit discharge response related to hazardous materials, petroleum products, and dust control (air quality) |
| Idaho Department of Agriculture | Enforcement assistance in illicit discharge response related to confined feeding operations waste in the right of way |
| Irrigation and Drainage Districts | Assist in locating drainage facilities |
| City Government | Enforcement assistance in illicit discharge response related to discharges from private property within city limits |
| Ada County Sheriff's Office | Enforcement assistance in illicit discharge response related to discharge from private property outside of city limits |
| ITD District 3 | Assist in locating stormwater facilities and illicit discharge activities within ITD jurisdiction |
| Public | Report illicit discharges, participate in education and activities |
| Boise State University (BSU) | Assist in locating stormwater facilities and illicit discharge activities within BSU jurisdiction |

# APPENDIX A – ILLICIT DISCHARGE ERP FLOW CHART

# Illicit Discharge Escalating Response Flow Chart



# Illicit Connection Escalating Response Flow Chart



# APPENDIX B – INTERAGENCY AGREEMENTS FOR THE ENFORCEMENT OF STORMWATER MANAGEMENT

# 2025 Attachment F.1 - Construction Site Runoff Control

## Construction Site Stormwater Runoff Control Program

The City of Boise has established a Construction Site Erosion and Sediment Control (ESC) program and implements the program in accordance with the approved city ordinance for construction site runoff and erosion and sediment. The program regulates applicable public and private construction activities to reduce discharge of pollutants. The program is primarily implemented by the City's Department of Planning and Development Services Building Division with two full time staff who are supported by other city staff when necessary.

The following sections describe the ESC program pertaining to Permit Year 4. More detailed information regarding the program can be found in the SWMP Plan.

### Ordinance or Regulatory Mechanism

The City of Boise's construction site runoff control program is established in accordance with the requirements of Boise City Code 9-14 (Construction Site Erosion Control Ordinance). The ordinance identifies general requirements and prohibitions on construction site runoff, permitting and fee authorities, plan review and approval process, erosion and sediment control best management practices and standards, training and certification program details, administration, inspection, and enforcement. The ordinance is consistent with the IPDES Construction General Permit and the requirements of the Boise area MS4 permit.

### Preconstruction Site Plan Review and Approval

All non-emergency construction activities occurring on City of Boise parcel(s) that involve significant earth disturbance or potential exposure of pollutants to stormwater runoff must obtain an ESC permit concurrently with other applicable building and development permits prior to construction. There are two types of ESC permits, General Permits and Site-Specific Permits. Details about permit types and requirements is provided in Table 1.

TABLE 1. ESC PERMIT TYPES AND REQUIREMENTS

| ESC Permit Type | Type of construction, location, and disturbance | Requirements & Site Priority Ranking |
|---|---|---|
| General Permit | Projects less than 1 acre area of disturbance including:<br>New residential home or dwelling unit not located in hillside or environmentally sensitive areas;<br>Residential additions > 500 sq ft;<br>Commercial additions/tenant improvements with limited exterior excavation/earth disturbance | Reduce pollutants in stormwater discharges;<br><br>Operator must list onsite certified ESC Responsible Person prior to issuance<br><br>Site priority: Low with escalation as needed based on site compliance |

| | | |
|---|---|---|
| Site-Specific Permit | New Residential homes located in Hillside or Environmentally Sensitive location;<br>New residential and commercial subdivision site development greater than 1-acre disturbance;<br>All new commercial building and multifamily apartment complex<br>Commercial additions and tenant improvements with significant excavation/earth disturbance | Reduce pollutants in stormwater discharges;<br><br>Operator must list onsite certified ESC Responsible Person prior to issuance<br><br>Submit site specific ESC plan/SWPPP for review during preconstruction application process<br><br>Site priority: Medium - High |

In Permit Year 4, 960 total ESC permits were issued. The permits consisted of 756 ESC general permits and 204 site-specific permits that required preconstruction site ESC plan review. Table 2 provides the number of permits issued by project rank, acreage disturbed, and average number of inspections on each type of permit.

TABLE 2. ESC PERMIT INFO BY PROJECT RANK

| Project Rank | Total Permits | Acres Disturbed | Total Fees Paid |
|---|---|---|---|
| High | 2 | 52.5 | $3,019 |
| Medium | 175 | 266.16 | $21,971 |
| Low | 783 | 256.1 | $62,108 |
| **Total** | 960 | 574.77 | $87,098 |

## Construction Site Inspection and Enforcement

During Permit Year 4, a total of 8,801construction site inspections were conducted with 88.6% pass rate (no corrective actions required). Table 3 provides statistics on inspection types completed categorized by the inspection result.

There were 157 targeted enforcement inspections completed to ensure sites are brought back into compliance after being notified there is a corrective action required or violation occurring. Permit Year 4 included $2,236 in fines spread amongst 26 different ESC permits for violations such as uncontained concrete washout, observed polluted stormwater discharges due to negligence, and special investigation fees for project's issued a Notice of Violation. Table 4 summarizes enforcement inspections and fines from 2022 to 2025.

TABLE 3: EROSION AND SEDIMENT CONTROL INSPECTIONS– PERMIT YEAR 4

| Inspection Type | Pass/ Completed | Corrections Required | Significant Violation | Not Ready/Partial | Total | Pass Rate |
|---|---|---|---|---|---|---|
| General Inspections | 6,711 | 742 | 48 | 0 | 7,501 | 89.5% |
| Site Preparation | 140 | 16 | 1 | 25 | 182 | 76.9% |
| Site Final | 890 | 1 | 0 | 10 | 901 | 98.8% |
| Complaint Inspection/ Investigation | 45 | 24 | 8 | 0 | 77 | 58.4% |
| BMP Violation | 47 | 22 | 11 | 0 | 80 | 58.8% |
| Tracking Control | 0 | 0 | 0 | 0 | 0 | NA |
| Conference | 57 | 0 | 0 | 0 | 57 | 100% |
| Random | 0 | 1 | 2 | 0 | 3 | 0% |
| **All Inspections** | 7,890 | 806 | 70 | 35 | **8,801** | 89.6% |

TABLE 4: ENFORCEMENT INSPECTIONS AND FINES 2022-2025

| Fiscal Year | Number of Targeted Inspections | Number of Sites Fined/Cited | Total Fine Amount |
|---|---|---|---|
| 2022 | 175 | 24 | $2,126 |
| 2023 | 146 | 32 | $3,153 |
| 2024 | 151 | 25 | $4,255 |
| 2025 | 157 | 26 | $2,236 |

TABLE 5: ESC PROGRAM DATA 2022-2025

| | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|
| # ESC Permits Issued | 1,209 | 947 | 831 | 960 |
| # of inspections completed | 10,990 | 10,623 | 9,330 | 8,801 |
| Inspection Pass rate | 88.63% | 89.50% | 88.85% | 89.6% |
| # of ESC plans reviewed | 483 | 164 | 179 | 204 |
| # of RP Certifications issued | 938 | 718 | 853 | 511 |
| Permit Revenue | $133,313 | $98,254 | $92,794 | $99,461 |
| Enforcement Revenue | $4,255 | $3,153 | $4,255 | $2,236 |
| RP Revenue | $49,690 | $31,335 | $48,405 | $37,795 |
| **Total Revenue** | $183,083 | $132,742 | $145,454 | $139,492 |

## Enforcement Response Policy

The written escalation enforcement response policy (ERP) for Construction Site Runoff Control outlines response guidelines that are followed by City staff when enforcement is required. Violation identification, response procedures, escalation measures, and penalties are all included in this document, which can be found at the City's Stormwater and Drainage Control webpage or on the ESC policies webpage.

## Construction Runoff Control Training for Staff

The Erosion and Sediment Control Program Coordinator and Inspector are primarily responsible for all preconstruction site plan review, site inspections, and enforcement. To be qualified for these duties, the ESC division personnel are required to complete municipal, state, and national training and certifications in stormwater management and be active in obtaining continued education annually. Both positions must complete and pass the City of Boise ESC Responsible Person training (more information in Attachment 2), Certified Inspector of Sediment and Erosion Control (CISEC) training and exam, Certified Erosion Sediment and Stormwater Inspector (CESSWI) and maintain their annual license as a Certified Professional in Erosion and Sediment Control (CPESC), which requires passing an initial exam and completing PDH requirements. To obtain continuing education and be up to date in the ESC/SWPPP regulation and industry, the inspectors are professional members of the International Erosion Control Association (IECA) and able to participate in special topic and comprehensive online courses and attend the annual and regional conferences when possible. Additionally ESC Inspectors are required to read and review the Idaho CGP as well as complete the training and exam for the EPA's NPDES Construction Inspection Training Course.

To support the ESC Division's mission to reduce the discharge of pollutants in stormwater runoff from construction sites, the ESC division conducts a Responsible Person training class quarterly for all City employees who are involved in construction activities or stormwater management. By completing the class every 3 years, staff is able to utilize ESC knowledge in relation to their duties as well as being able to identify construction site stormwater runoff violations so they may notify the ESC division for enforcement. Staff that receive the training include all members of the Building Division team, including inspectors (structural, plumbing, mechanical, electrical, and fire), plan reviewers and permit technicians, Public Works construction site managers, Public Works engineering and environmental division staff, and Parks and Recreation staff associated with construction projects also complete the Responsible Person training. In Permit Year 4, there were no City of Boise employees required to complete new RP license training or that needed certification renewal.

In addition to completing certification courses, the staff may receive one-on-one training in the field with a certified ESC inspector.

# 2025 Attachment G - Erosion and Sediment Control

**Table 1. ESC Inspections Performed & Notice of Violations Issued**
**October 1, 2024 – September 30, 2025**

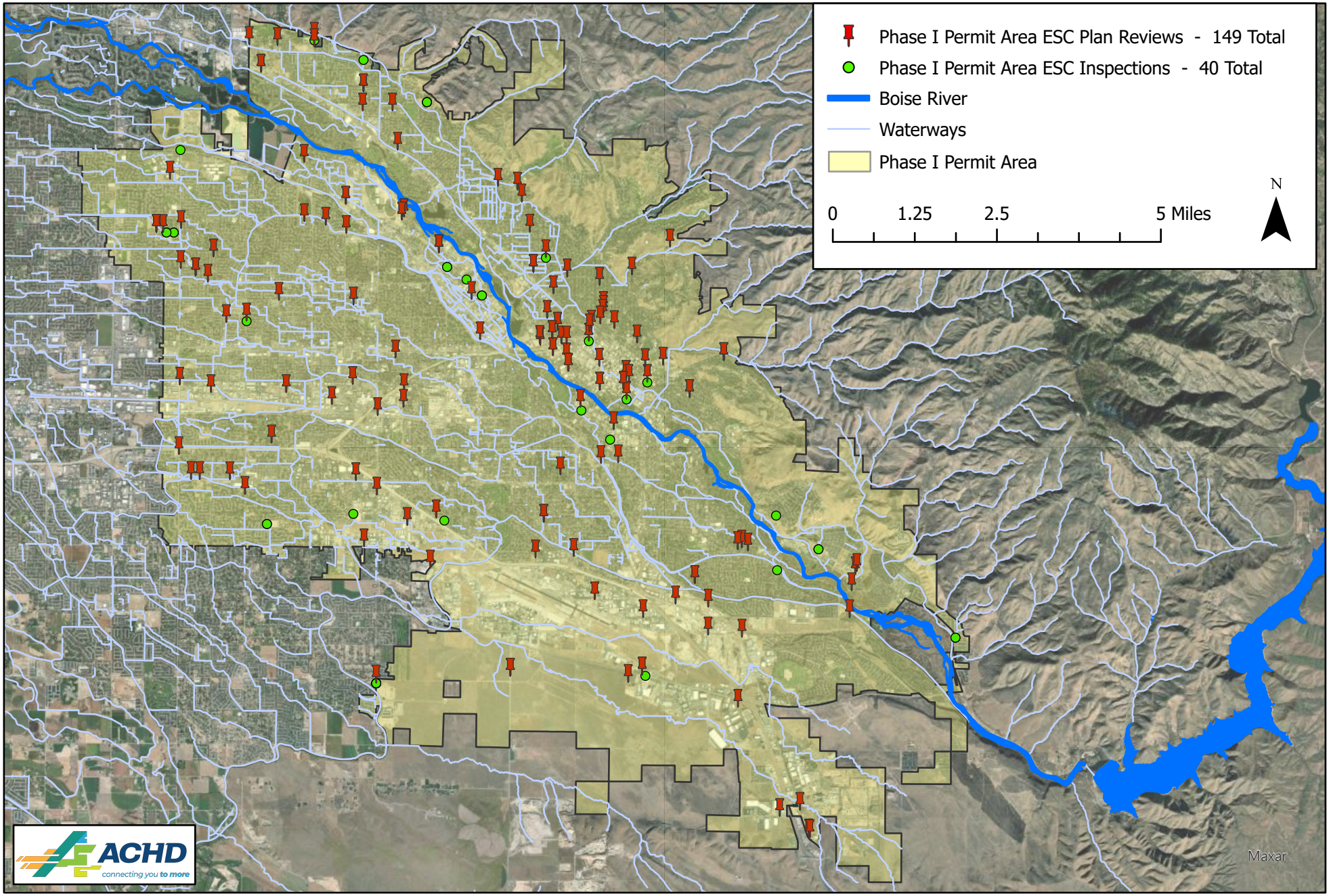
| ACTIVITY | TOTAL |
|---|---|
| ESC Inspections[1] | 40 |
| Capital Project SWPPP[2] Inspections | 33 |
| Notice of Violations Issued | 1 |

*[1]ESC Inspections Performed by ACHD Environmental staff and contracted inspection staff.*
*[2]Stormwater Pollution Prevention Plan*

**Table 2. ESC Plan Review, Inspection, and Notice of Violation Summary by Month**
**October 1, 2024 – September 30, 2025**

| MONTH | SITE SPECIFIC PLANS REVIEWED | SITE SPECIFIC PLANS WITH DEFICIENCIES | ESC INSPECTIONS COMPLETED | NOTICE OF VIOLATIONS ISSUED |
|---|---|---|---|---|
| **October** | 11 | 1 | 6 | 1 |
| **November** | 8 | 0 | 2 | 0 |
| **December** | 9 | 3 | 3 | 0 |
| **January** | 18 | 2 | 3 | 0 |
| **February** | 8 | 2 | 4 | 0 |
| **March** | 17 | 2 | 0 | 0 |
| **April** | 19 | 1 | 5 | 0 |
| **May** | 18 | 4 | 2 | 0 |
| **June** | 6 | 1 | 2 | 0 |
| **July** | 8 | 1 | 7 | 0 |
| **August** | 12 | 0 | 2 | 0 |
| **September** | 15 | 4 | 4 | 0 |
| **Total** | **149** | **21** | **40** | **1** |

Erosion and Sediment Control (ESC) Plan Review and Site Inspections
October 1, 2024 - September 30, 2025



# 2025 Attachment H - ACHD Vegetated Basins, Bioretention Swales, and GSI Program Activities

**Table 1. Phase I ACHD-Owned Vegetated Basins and Bioretention Swales 2016 – 2025**

| # | STORMWATER FACILITY ID | FACILITY TYPE | NEAREST INTERSECTION | AREA (SQFT) | YEAR BUILT | STRUCTURAL RETROFIT DATE | VEGETATION RETROFIT DATE | NEW GSI VEGETATION INSTALLATION DATE | CITY |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Basin 63 | Detention-Dry | W Albion St & S Garden St | 10,924 | 1997 | - | 2019 | - | Boise |
| 2 | Basin 65 | Detention-Wet | W Ustick Rd & N Curtis Rd | 143,161 | 1997 | - | TBD | - | Boise |
| 3 | Basin 322 | Detention-Dry | W Airway Ct & S Cole Rd | 37,764 | 2003 | - | 2018 | - | Boise |
| 4 | Basin 327 | Retention-Wet | E Boise Ave & S Betsy Ross Wy | 15,199 | 1976 | 2022 | 2022 | - | Boise |
| 5 | Basin 331 | Detention-Dry | N Steelhead Wy & W Emerald St | 21,432 | 2007 | - | 2018 | - | Boise |
| 6 | Basin 332 | Detention-Dry | W Irving St & N Maple Grove Rd | 23,462 | 2007 | - | 2018 | - | Boise |
| 7 | Basin 333 | Detention-Wet | N Maple Grove & Hyatt Wetlands Park | 20,856 | 2006 | - | TBD | - | Boise |
| 8 | Basin 334 | Retention-Dry | W Ustick Rd & N Chatterton Wy | 38,883 | 2006 | - | 2019 | - | Boise |
| 9 | Basin 371 | Retention - Dry | W Victory Rd & S Fry St | 157,482 | 2004 | - | TBD | - | Boise |
| 10 | Basin 628 | Retention-Dry | N Five Mile Rd & W Milclay St | 19,531 | 2012 | - | 2016 | - | Boise |
| 11 | Basin 674 | Retention-Dry | 858 N Whitewater Park Blvd | 18,764 | 2013 | - | 2018 | - | Boise |
| 12 | Basin 677 | Detention-Dry | N Pierce Park Ln & W Hammermill Dr | 14,680 | 2013 | - | 2017 | - | Boise |
| 13 | Basin 685 | Detention-Dry | W Emerald St Dr & N Five Mile Rd | 17,508 | 2014 | - | 2017 | - | Boise |
| 14 | Basin 694/695 | Retention-Dry | W Hill Rd & W Catalpa Dr | 8,013 | 2013 | - | 2018 | - | Boise |
| 15 | Basin 696 | Retention-Dry | W Hill Rd & N 36th St | 5,757 | 2016 | - | 2017 | - | Boise |
| 16 | Basin 697 | Retention-Dry | E Gowen Rd & S Eisenman Rd | 5,144 | 2016 | - | 2018 | - | Boise |
| 17 | Basin 882 | Retention-Dry | E Gowen Rd & S Eisenman Rd | 3,586 | 2016 | - | 2018 | - | Boise |
| 18 | Basin 883 | Retention-Dry | E Gowen Rd & S Eisenman Rd | 3,440 | 2016 | - | 2018 | - | Boise |
| 19 | Basin 1321 | Detention-Wet | N Veterans Memorial Pkwy & W Glendale Rd | 31,652 | 2019 | - | 2019 | - | Boise |
| 20 | Basin 1324 | Detention-Dry | N Cloverdale Rd & W Bowmont St | 11,992 | 2019 | 2022 | 2019 | - | Boise |
| 21 | Basin 1338 | Retention-Dry | W Glendale St & N Stilson Rd | 4,399 | 2019 | - | 2018 | - | Boise |
| 22 | Basin 1339 | Retention-Dry | W Alameda St & N Veterans Memorial Pkwy | 14,951 | 2019 | - | 2018 | - | Boise |
| 23 | Basin 1370 | Retention-Dry | N Arthur St & W State St | 2,115 | 2019 | - | 2018 | - | Boise |
| 24 | Basin 1372 | Retention-Dry | S Cole Rd & W Lake Hazel Rd | 45,619 | 2019 | - | 2020 | - | Boise |
| 25 | Basin 1373 | Retention-Dry | W Franklin Rd & N Cole Rd | 32,400 | 2019 | - | 2020 | - | Boise |
| 26 | Basin 1374 | Retention-Dry | N Cloverdale Rd & W Edna St | 18,370 | 2019 | - | 2019 | - | Boise |
| 27 | Basin 1440 | Retention-Dry | N Collister Dr & Collister Access | 2,786 | 2019 | - | 2019 | - | Boise |

| # | STORMWATER FACILITY ID | FACILITY TYPE | NEAREST INTERSECTION | AREA (SQFT) | YEAR BUILT | STRUCTURAL RETROFIT DATE | VEGETATION RETROFIT DATE | NEW GSI VEGETATION INSTALLATION DATE | CITY |
|---|---|---|---|---|---|---|---|---|---|
| 28 | Basin 1441 | Retention-Dry | N Collister Dr & Collister Access | 3,207 | 2019 | - | 2019 | - | Boise |
| 29 | Collister Swales | Bioretention Swales | N Collister Dr & W State St | 4,746 | 2019 | - | 2019 | - | Boise |
| 30 | Heron Park Swales | Bioretention Swales | E Heron Park & N Adams St | 3,661 | 2023 | - | - | 2023 | Boise |

TBD = To be determined

**Table 2. GSI Projects Designed or Constructed 2020 - 2025**

| # | PROJECT NAME | GSI TYPE | GSI (COUNT) | DESIGNED | CONSTRUCTED | AREA TREATED (ACRES) |
|---|---|---|---|---|---|---|
| 1 | 12th & Idaho | Stormwater Tree Cell | 2 | 2022 | In Progress | 0.34 |
| 2 | 16th & State | Stormwater Tree Cells | 2 | 2024 | In progress | 0.29 |
| 3 | 28th St. Extension | Stormwater Tree Cell | 4 | 2022 | 2024 | 0.66 |
| 4 | 3rd St Streetscape Improvement Project (CCDC) | Stormwater Tree Cells | 12 | 2024 | In progress | 0.34 |
| 5 | 8th Street Bikeway & Streetscapes (CCDC) | Stormwater Tree Cells | 1 | 2024 | In progress | 0.07 |
| 6 | 9th Street Improvements Set 2 | Stormwater Tree Cells | 1 | 2024 | In Progress | 0.34 |
| 7 | Bannock Street - 16th to 12th Streetscape Improvements (CCDC) | Stormwater Tree Cells | 3 | 2024 | In progress | 0.82 |
| 8 | Boise Fire Station No 5 | Stormwater Tree Cell | 2 | 2023 | 2024 | 0.09 |
| 9 | Capital Student Housing | Stormwater Tree Cell | 4 | 2022 | 2024 | 1.04 |
| 10 | Downtown Boise YMCA | Stormwater Tree Cells | 3 | 2025 | Pending | 1.17 |
| 11 | Finch on 27th | Stormwater Tree Cells | 1 | 2025 | In progress | 0.33 |
| 12 | Fulton Street Improvement | Stormwater Tree Cell | 10 | 2022 | 2024 | 1.26 |
| 13 | Idaho Wheat Commission | Stormwater Tree Cells | 2 | 2025 | In progress | 0.12 |
| 14 | Linen Blocks on Grove Street | Stormwater Tree Cell | 24 | 2022 | In Progress | 3.17 |
| 15 | Lusk Street Apartments | Stormwater Tree Cell | 1 | 2022 | 2024 | 0.12 |
| 16 | Old Boise Blocks on Grove Street | Stormwater Tree Cell | 7 | 2022 | In Progress | 0.63 |
| 17 | Saratoga Apartments | Stormwater Tree Cell | 4 | 2022 | In Progress | 1.80 |
| 18 | State & Pierce Park | Bioretention Basin | 1 | 2024 | In Progress | 0.81 |
| 19 | State & Pierce Park | Bioretention Swale | 28 | 2024 | In Progress | 6.39 |
| 20 | State St Corridor Improvements A | Bioretention Curb Extension | 8 | 2020 | 2024 | 0.5 |
| 21 | State Street Improvement B | Bioretention Curb Extension | 9 | 2023 | 2025 | 1.01 |
| 22 | State Street Improvement B | Bioretention Planters | 7 | 2023 | 2025 | 0.34 |

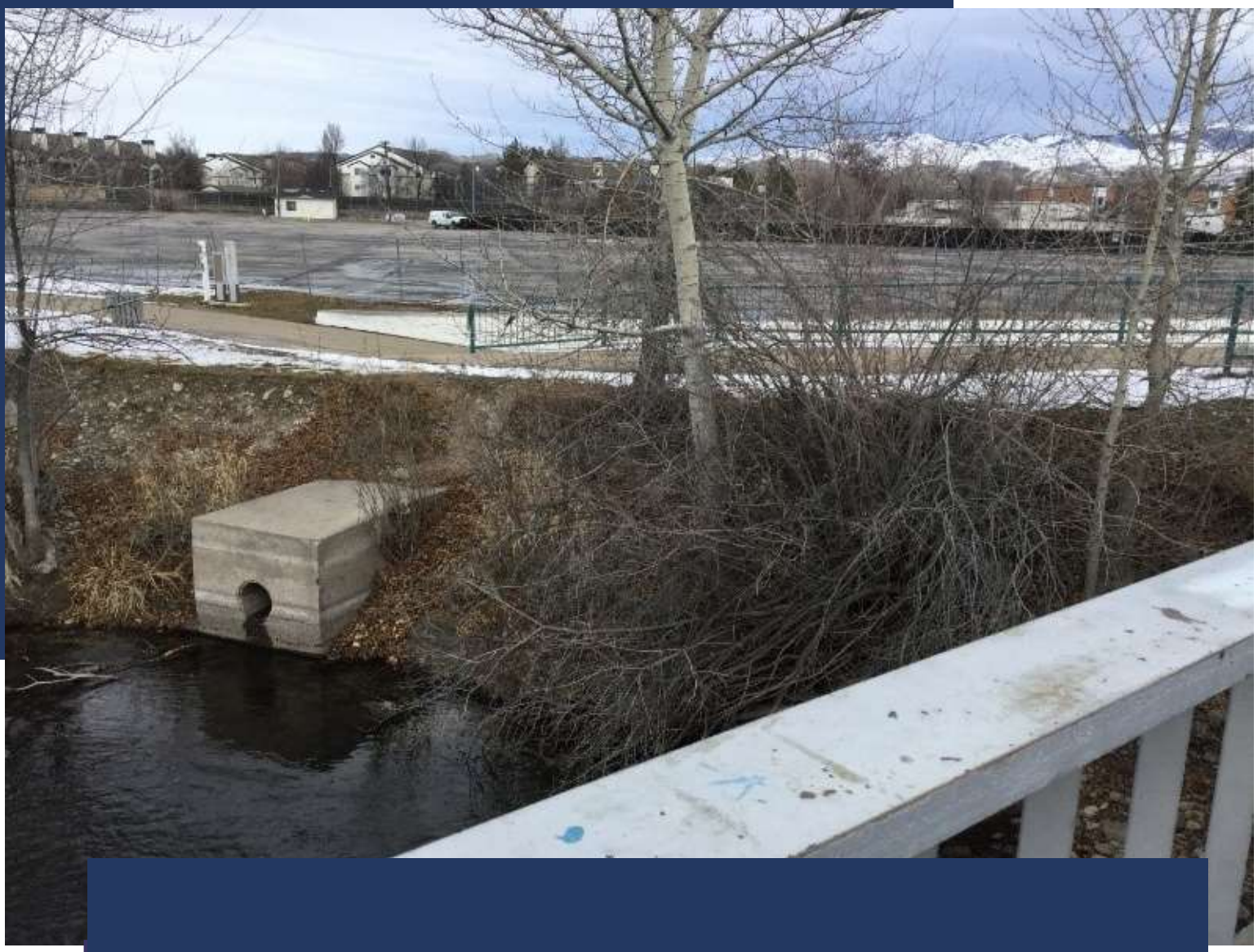
Note: Capital City Development Corporation (CCDC)

**Table 3. Phase I ACHD GSI Program Updates 2024 - 2025**

| GSI PROGRAM AREA | GSI PROGRAM ACTIVITY | DESCRIPTION |
|---|---|---|
| **Facility Maintenance** | Permeable Paver Maintenance Equipment | Tested the cleaning capabilities of 4 different mechanical sweepers under varying paver conditions to determine the most effective sweeper and settings for maintaining permeable pavers. |
| | Permeable Paver Assessments | Conducted assessments of all of ACHD's permeable paver systems to determine the overall condition and maintenance needs of each facility. This information will be used to prioritize maintenance activities going forward. |
| **Inventory** | Mapping | Continued to update ArcGIS's GSI layers to improve readability, remove outdated and redundant information, add new GSI types, and complete information to enhance record keeping and maintenance efforts. |
| **Design & Construction** | Policy Update | Continued to update ACHD Stormwater Design Tools and approved BMPs to improve stormwater management. |
| **Training & Coordination** | Project Manager GSI Training | Hosted an ACHD Project Manager GSI tour and provided fact sheets to train ACHD Project Mangers on the function, placement, key design components, and general maintenance practices for each type of GSI. |
| | Inspector Training | Provided on-site training for inspecting stormwater tree cells during installation. |
| | Collaboration | Worked with stakeholders to improve communication and collaboration regarding the design, construction, and maintenance of stormwater tree cells. |

# 2025 Attachment I - Industrial and Commercial Facility Inspection Reports

# Appendix L: Industrial and Commercial Facility Inspection Reports



# 2025 MS4 Stormwater Industrial and Commercial Inspection Report

## City of Boise


Public Works
Engineering

208-608-7530
150 N. Capitol Blvd.

# TABLE OF CONTENTS

1- Auto Metric Inspection Report
2- Automotive Diesel Specialist Inspection Report
3- Boise Auto Arena Brothers Inspection Report
4- Boise Auomotive Service Inspection Report
5- Stinker Inspection Report
6- Dale's Auto Care Inspection Report
7- Don's Supreme Auto Service Inspection Report
8- Gary's Place Auto Repair Inspection Report
9- Jackson's #7 Inspection Report
10- Jackson's #53 Inspection Report
11- Jackson's #122 Inspection Report
12- Bench Garage Inspection Report
13- Mike's Boise Clutch and Automotive Inspection Report
14- Workland Automotive Inspection Report
15- Rudy's Auto Service InspectionReport

Facilities Discharging to the MS4 / On-site Retention _____ Appendix A
Number of Educational Materials Distributed _____ Appendix B
Enforcement Actions _____ Appendix C
Number of Complaint Driven Inspections _____ Addendix D
Facilities with Non-Stormwater Discharge to the MS4 _____ Appendix E
Inspection Tracking _____ Appendix F

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 1- Auto Metric

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Auto Metric

**Site Address:** 1703 S Vista Ave, Boise ID 83705

| | |
|---|---|
| **Site Contact/Title:** Joe Garza, Owner | **Site Phone Number:** 208-338-8483 |
| **Inspector:** Andrea Leonard | **Date:** 6/25/25 |

**Weather and/or recent precipitation info:** Sunny, 80; no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Auto Metric offers foreign and domestic auto repair, including tire services, and maintenance.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☒ Dry Well, #: 1
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Clear drain of debris. | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** last month |
| **Comments:** This drain is not mapped. It seems to be a dry well, as there is no inlet/outlet pipes. Joe said the county comes and sprays it for mosquito abatement annually(?)<br>He regularly clears and cleans the inlet. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |

| | |
|---|---|
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |
| **Chemical/Product Storage:** All oil is stored indoors. No liquid storage outside. Engines stored outside are drained before storing. No evidence of leaks or spills. | |
| **Waste Disposal:** Oil gets disposed of regularly by a contractor. | |
| **Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. If cars need washed, they take them to a commercial washer. | |
| **Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater. | |

| **Compliance and Follow-up** |
|---|
| ☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*<br><br>☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*<br><br>☐ **Other:** _____ |
| **Corrective Actions:** |
| **Other requests/recommendations:** |
| **Educational Materials left on-site:** Partners info card |
| **Follow-up Inspection** |
| **Follow-up inspection details:** N/A |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Auto Metric
1703 Vista Ave
Boise ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 1703 Vista Ave,
Recently, City of Boise staff conducted a stormwater inspection at Auto Metric to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Auto Metric appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

As a reminder, the parcel at 1703 Vista Ave. has onsite stormwater infrastructure consisting of a dry well as well as some runoff draining to the MS4. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement






AUTO METRIC
"QUALITY USED CARS"
MECHANICS YOU CAN TRUST!
CarCareCenter



# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 2-Automotive Diesel Specialist

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Automotive Diesel Specialist

**Site Address:** 2719 W. Idaho St., Boise, ID 83702

| | |
|---|---|
| **Site Contact/Title:** Scott Vanocker | **Site Phone Number:** 208-338-0123 |
| **Inspector**: A. Leonard | **Date:** 6/26/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Full Service Auto Repair & Diesel Mechanic

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status: Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☒ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☐ Yes ☒ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☐ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #:
☒ Oil/Water Separator, #: 2
☒ Seepage Bed, #: 2
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains to asphalt |
| **Comments:**<br>Walked property with owner of ADS, but he does not own the property. Property seems in decent condition in regards to stormwater pollution. Minimal oil and debris in the parking lot, but used oil containers and liquid storage barrels need secondary containment. |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually | **Maintenance Frequency:** Annually or when needed |
| **Service Methods:** Local contractor to pump OWS | |
| **Service Provider:** Varies | **Last date maintained/cleaned:** unsure |
| **Comments:**<br>ADS owner said the OWS gets pumped regularly and no flooding is seen on site when it rains. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:**

Liquid barrels and used oil are stored outdoors, which need secondary containment. Other chemicals and products are stored indoors.

**Waste Disposal:**

Used oil is picked up regularly.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:**

No power washing conducted outside. Indoor dry sweeping done, and indoor drains go to sewer.

**Comments:**

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:** The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

**Other requests/recommendations:**

**Educational Materials left on-site:** Pollution Prevention BMP Guide

## Follow-up Inspection

**Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance*

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Automotive Diesel Specialist
2719 W. Idaho St
Boise ID 83702

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 2719 W. Idaho St,
Recently, City of Boise staff conducted a stormwater inspection at Automotive Diesel Specialist to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, the parcel at 2719 W. Idaho St. has onsite stormwater infrastructure consisting of two oil water separators that drain to two separate seepage beds. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**



Boise City Code Section 10-6 drives the City's requirement of these corrective actions. Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

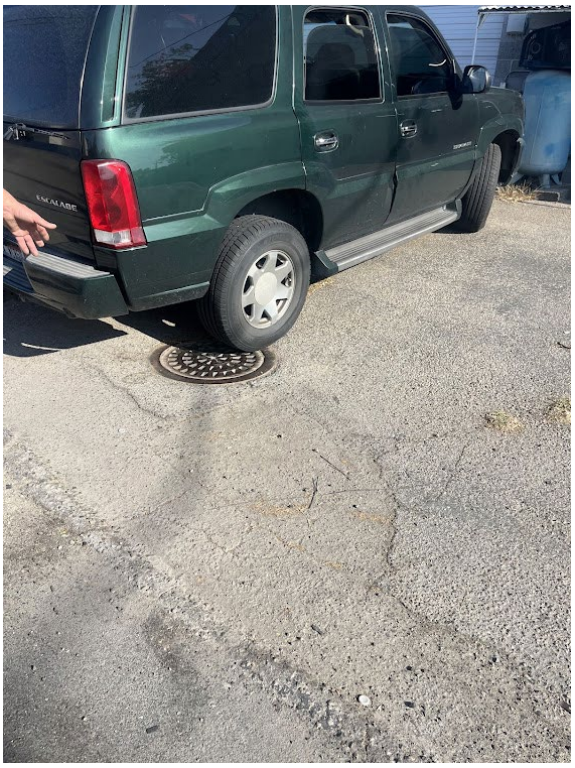
B. **Spill Containment System**: To prevent the discharge of hazardous substances to the MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Automotive Diesel Specialist will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 20, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement









# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 3- Boise Auto Arena Brothers

***Priority Watershed Inspection Report***

***Follow-Up Letter***

***Stormwater Runoff Map***

***Stormwater Pictures***

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Boise Auto Arena Brothers

**Site Address:** 9801 Fairview Ave, Boise, ID 83704

| | |
|---|---|
| **Site Contact/Title:** Matt Brasher | **Site Phone Number:** 208-423-2222 |
| **Inspector:** Andrea Leonard | **Date:** 7/11/25 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Used car dealership; oil changes; auto body repair

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☒ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☐ Yes ☒ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☐ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #:
☒ Oil/Water Separator, #: 2
☒ Seepage Bed, #: 1
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☒ No ☐ N/A | |
| **Inspection Frequency:** unknown | **Maintenance Frequency**: unknown |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** unknown |
| **Comments:** Matt with Auto Arena Brothers walked the property with me. He stated he hasn't been aware of the system being maintained in the last 5 years. I told him it needed to be inspected and cleaned regularly to maintain functionality. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☐ Yes ☒ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☐ Yes ☒ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Chemicals are stored indoors. Used oil is stored outdoors and needs secondary containment. Spill kits are available.

**Waste Disposal:** Oil and antifreeze gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer.

**Comments:** Property needs some good housekeeping BMPs, as well as secondary containment.

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

1. The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

2. Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.

3. Do not store engines or motors that may contain oil outdoors.

4. Oil water separators need to be pumped by a licensed contractor, as City staff were told they haven't been pumped in at least 5 years. Please provide invoices of required maintenance.

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

| Follow-up Inspection |
| --- |
| **Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance* |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

Boise Auto Arena Brothers
9801 Fairview Ave
Boise ID 83704

Re: Priority Watershed Stormwater Inspection

Dear Property Owner at 9801 Fairview Ave,

Recently, City of Boise staff conducted a stormwater inspection at Boise Auto Arena Brothers to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, the parcel at 9801 Fairview Ave. has onsite stormwater infrastructure consisting of two oil water separators that lead to a seepage bed. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**
2. **Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.**
3. **Do not store engines or motors that may contain oil outdoors.**
4. **Oil water separators need to be pumped by a licensed contractor, as City staff were told they haven't been pumped in at least 5 years. Please provide invoices of required maintenance.**





Boise City Code Section 10-6 drives the City's requirement of these corrective actions. Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-1. General Requirements and Prohibitions**

D. Property Maintenance: The occupant or tenant, the owner, lessee or proprietor of any real property in the City where there is located a paved sidewalk or parking area shall maintain said paved surface free of dirt or litter to the extent reasonable and practicable and provide an adequate means for the disposal of refuse, rubbish, garbage or other articles so as to prevent such matter from entering a storm drain. Sweepings from said sidewalk shall not be swept or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained on said real

property.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

B. Spill Containment System: To prevent the discharge of hazardous substances to the MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Boise Auto Arena Brothers will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 20, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement

















# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 4- Boise Automotive Service

***Priority Watershed Inspection Report***

***Follow-Up Letter***

***Stormwater Runoff Map***

***Stormwater Pictures***

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Boise Automotive Service

**Site Address:** 9901 Fairview Ave, Boise ID 83704

| | |
|---|---|
| **Site Contact/Title:** Liz Fleming | **Site Phone Number:** 208-375-2129 |
| **Inspector:** Andrea Leonard | **Date:** 7/29/25 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Auto repair shop

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☒ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☐ Yes ☒ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☐ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☒ Other : French Drain

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** Went on site and manager let me know someone else from the City was on their way because of a dumpster issue. Republic Services had a leaky truck and dumped garbage liquid all through their parking lot, causing a mess. This issue was resolved the next day, when Republic came and washed the lot. |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Clear drains of debris. | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** this summer |
| **Comments:** These drains are not mapped on our GIS. There is a French drain that runs parallel to the front of the building. There is also a drain right on the western property line that seems like it collects most water from the property. Not sure where this leads. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |

| | |
|---|---|
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |
| **Chemical/Product Storage:** All oil is stored indoors. No liquid storage outside. Barrels are empty. Engines stored outside are drained before storing. No evidence of leaks or spills. | |
| **Waste Disposal:** Oil gets disposed of regularly by a contractor. | |
| **Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. | |
| **Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater. | |

| **Compliance and Follow-up** |
|---|
| ☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*<br>☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*<br>☐ **Other:** _____ |
| **Corrective Actions:** |
| **Other requests/recommendations:** |
| **Educational Materials left on-site:** Partners info card |
| **Follow-up Inspection** |
| **Follow-up inspection details:** N/A |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

Boise Automotive Service
9901 Fairview Ave
Boise ID 83704

Re: Priority Watershed Stormwater Inspection

Dear Property owner of 9901 Fairview Ave,
Recently, City of Boise staff conducted a stormwater inspection at Boise Automotive Service to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Boise Automotive Service appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

As a reminder, the parcel at 9901 Fairview Ave. has onsite stormwater infrastructure consisting of catch basins and a french drain. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

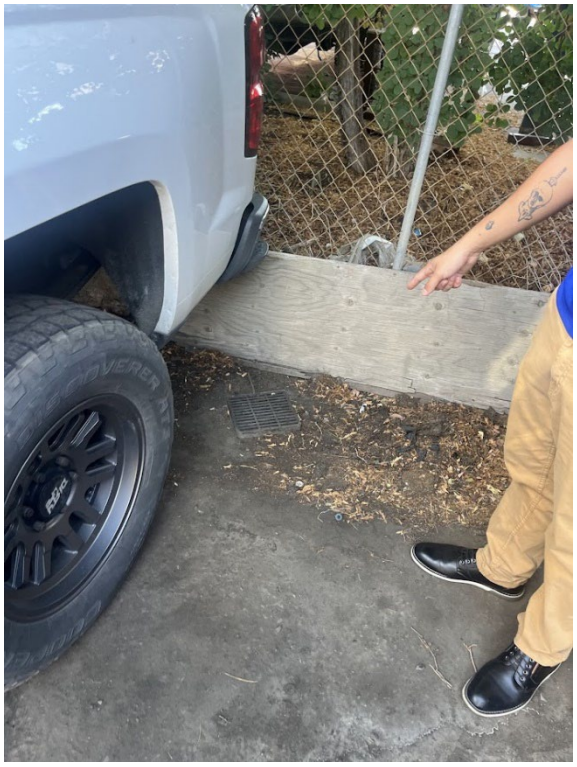
In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement










UPLOAD LAUNDRY


AUTOMOTIVE
TINT WORLD

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 5- Stinker (Broadway)

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Stinker Store

**Site Address:** 1607 S. Broadway Ave, Boise ID 83706

| | |
|---|---|
| **Site Contact/Title:** Chris McCrum | **Site Phone Number:** 208-331-2881 |
| **Inspector:** Andrea Leonard | **Date:** 7/16/2025 |

**Weather and/or recent precipitation info:** Sunny, 85

**Business Description of Industrial and Commercial Activities:**

Gas Station

| | |
|---|---|
| **NAICS/SIC code:** 5541 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☒ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #:
☒ Oil/Water Separator, #: 2
☒ Seepage Bed, #: 2
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Pump OWS | |
| **Service Provider:** Local Contractor, varies | **Last date maintained/cleaned:** this year |
| **Comments:** Parking lot and property are all in great condition. OWS is clear of debris and does not have much sediment. Well maintained and clean property. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** No liquid storage outside. Any chemicals are inside or not on site.

**Waste Disposal:** Dumpster, any spills are cleaned up and disposed of in trash.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. Spill kits on site.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Stinker Store
1607 S. Broadway Ave.
Boise ID 83706

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 1607 S. Broadway Ave,
Recently, City of Boise staff conducted a stormwater inspection at Stinker to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at your Stinker Store appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

As a reminder, the parcel at 1607 S. Broadway Ave has onsite stormwater infrastructure consisting of two oil water separators and seepage beds. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement




STINKER






Sinclair
DINOCARE
STOP
SAVE
50¢ FUEL

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 6-Dale's Auto Care

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Dale's Auto Care

**Site Address:** 2602 S Vista Ave, Boise ID 83705

| | |
|---|---|
| **Site Contact/Title:** Sam Gray | **Site Phone Number:** 208-345-5620 |
| **Inspector:** Andrea Leonard | **Date:** 8/1/25 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Professional auto repair, brake repair, engine repair, transmission repair, auto electrical repair, air conditioning repair, maintenance and car repair service.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☐ Yes ☒ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☐ Yes ☒ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☐ Yes ☒ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Some liquid is stored outside, along with some equipment that is leaking oil. Caps on barrels are not properly secured.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. Used oil is stored indoors.

**Comments:** Property is in decent condition, just needs some good housekeeping and secondary containment. It seems as though most stormwater flows toward gravel on north and east side of property.

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

1. The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

2. Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.

3. Do not store engines, motors or other auto parts or equipment that may contain oil outdoors.

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

## Follow-up Inspection

| |
|---|
| **Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance* |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Dale's Auto Care
2602 S Vista Ave.
Boise, ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 2602 S Vista Ave,

Recently, City of Boise staff conducted a stormwater inspection at Dale's Auto Care to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, some runoff from 2602 S Vista Ave. drains to the Municipal Separate Storm Sewer System (MS4), which drains directly to local surface waters.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**
2. **Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.**
3. **Do not store engines, motors or other auto parts or equipment that may contain oil outdoors.**





Boise City Code Section 10-6 drives the City's requirement of these corrective actions. Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-1. General Requirements and Prohibitions**

D. Property Maintenance: The occupant or tenant, the owner, lessee or proprietor of any real property in the City where there is located a paved sidewalk or parking area shall maintain said paved surface free of dirt or litter to the extent reasonable and practicable and provide an adequate means for the disposal of refuse, rubbish, garbage or other articles so as to prevent such matter from entering a storm drain. Sweepings from said sidewalk shall not be swept or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained on said real

property.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

B. Spill Containment System: To prevent the discharge of hazardous substances to the MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Dale's Auto Care will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 15, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

**Andrea Leonard**
Stormwater Environmental Specialist
Inspection & Enforcement


DALE'S AUTO


CHEVROLET









# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 7-Don's Supreme Auto Service

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Don's Supreme Auto Service

**Site Address:** 2703 N. 36th St, Boise ID 83703

| | |
|---|---|
| **Site Contact/Title:** Matt Jensen | **Site Phone Number:** 208-344-5915 |
| **Inspector:** Andrea Leonard | **Date:** 8/6/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Auto Repair specializing in vehicle repair and maintenance, brakes, tune-ups, and suspensions.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status: Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☐ Yes ☒ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☐ Yes ☒ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☐ Yes ☒ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Some liquid barrels are stored outside along with used oil. Caps are not properly secured, either.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. If cars need washed, they take them to a commercial washer.

**Comments:** Property needs good housekeeping and secondary containment.

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

1. The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

2. Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.

3. Do not store engines or motors that may contain oil outdoors.

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

## Follow-up Inspection

| |
|---|
| **Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance* |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

Don's Supreme Auto Service
2703 N. 36th St.
Boise, ID 83703

Re: Priority Watershed Stormwater Inspection

Dear Property owner of 2703 N. 36th St.,

Recently, City of Boise staff conducted a stormwater inspection at Don's Supreme Auto Service to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, some runoff from 2703 N. 36th St. drains to the Municipal Separate Storm Sewer System (MS4), which drains directly to local surface waters.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**
2. **Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.**
3. **Do not store engines or motors that may contain oil outdoors.**








Boise City Code Section 10-6 drives the City's requirement of these corrective actions.

Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on-site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-1. General Requirements and Prohibitions**

D. Property Maintenance: The occupant or tenant, the owner, lessee or proprietor of any real property in the City where there is located a paved sidewalk or parking area shall maintain said paved surface free of dirt or litter to the extent reasonable and practicable and provide an adequate means for the disposal of refuse, rubbish, garbage or other articles so as to prevent such matter from entering a storm drain. Sweepings from said sidewalk shall not be swept or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained on said real property.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

B. Spill Containment System: To prevent the discharge of hazardous substances to the MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Dale's Auto Care will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 15, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business

operations.  Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement




WASTE
OIL








Don's Supreme Auto

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 8-Gary's Place Auto Repair

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Gary's Place Auto Repair

**Site Address:** 802 S. Orchard St, Boise, ID 83705

| | |
|---|---|
| **Site Contact/Title:** Robert Kester | **Site Phone Number:** |
| **Inspector:** Andrea Leonard | **Date:** 8/6/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Garys Place Auto Repair is a family owned and operated full service auto repair facility.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☒ Yes ☐ No

***If yes, what surface water?*** Ridenbaugh Canal

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments: There is a catch basin right on Gary's property line, in the parking lot.** Robert said that irrigation water from the property south of him is piped to the drain, as well as runoff from his property. There's commonly water in it. He has never seen anyone cleaning it out.<br>**9/23/25: Confirmed this drain is outside of the property line, in right-of-way.* |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Clear drain of debris. | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** last month |
| **Comments:** He said he will clear it when it gets blocked, but flooding or clogging hasn't been an issue.<br>**9/23/25: Since this is an ACHD owned and maintained drain, maintenance performed by the property owner is limited to clearing the drain of debris.* | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |

| | |
|---|---|
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |
| **Chemical/Product Storage:** All oil is stored indoors. No liquid storage outside. Engines stored outside are drained before storing. No evidence of leaks or spills. | |
| **Waste Disposal:** Oil gets disposed of regularly by a contractor. | |
| **Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. | |
| **Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater. | |

| **Compliance and Follow-up** |
|---|
| ☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*<br>☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*<br>☐ **Other:** _____ |
| **Corrective Actions:** |
| **Other requests/recommendations:** |
| **Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide |
| **Follow-up Inspection** |
| **Follow-up inspection details:** N/A |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Gary's Place Auto Repair
802 S. Orchard St.
Boise ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 802 S. Orchard St,
Recently, City of Boise staff conducted a stormwater inspection at Gary's Place Auto Repair to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

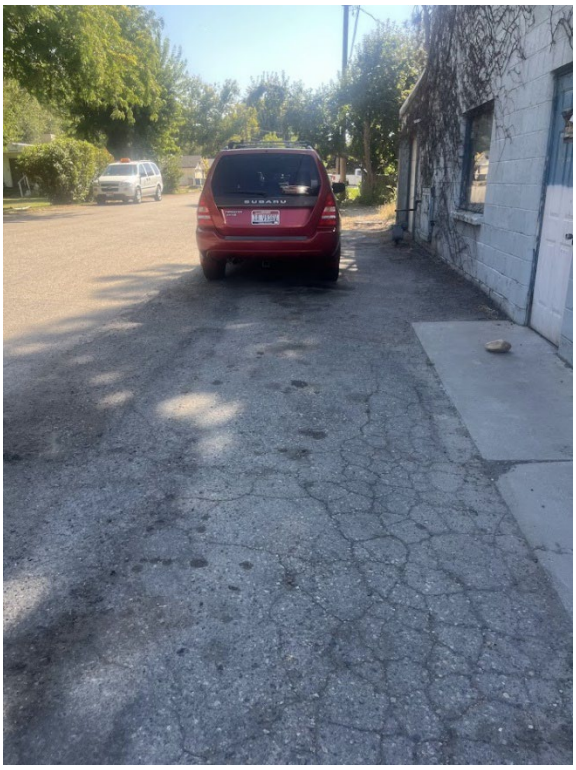
Based on inspection observations, operations at Auto Metric appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

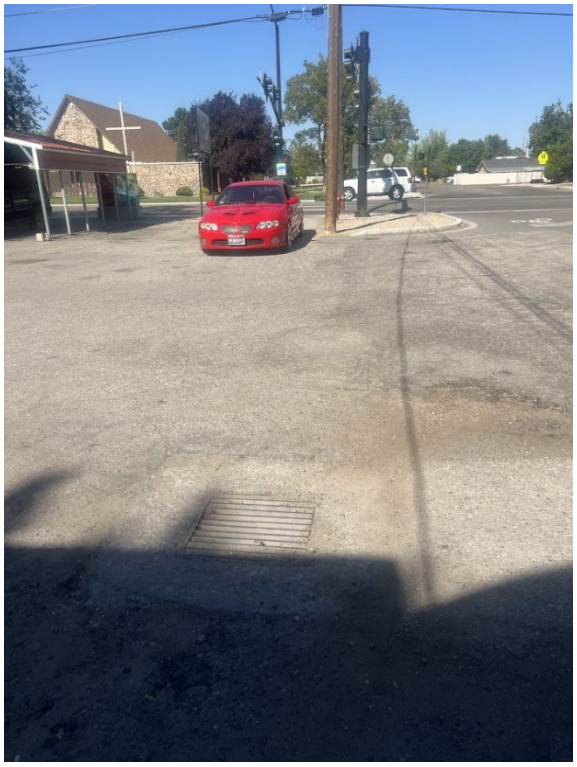
As a reminder, the parcel at 802 S. Orchard St. has a stormwater inlet that drains to the MS4, which drains directly to local waterways. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement









# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 9- Jackson's #7

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Jacksons #7

**Site Address:** 3110 W. State St, Boise ID 83703

| | |
|---|---|
| **Site Contact/Title:** Brian Dietz | **Site Phone Number:** 208-343-6926 |
| **Inspector:** Andrea Leonard | **Date:** 7/16/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Gas station/ convenience store

| | |
|---|---|
| **NAICS/SIC code:** 5541 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☒ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☐ Yes ☒ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☐ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #:
☒ Oil/Water Separator, #: 5
☒ Seepage Bed, #: 5
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Pump OWS | |
| **Service Provider:** Local Contractor like Master Rooter | **Last date maintained/cleaned:** this year |
| **Comments:** Property seems to be well maintained and taken care of. Property is free of oil and debris. Spill absorbent on site in case of spill. Site is inspected regularly by DEQ. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** All liquids are stored indoors.

**Waste Disposal:** Dumpsters on property. No hazardous wastes.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. Parking lot is dry swept as needed. Spill kits are available.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Jackson's #7
3110 W. State St.
Boise ID 83703

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 3110 W. State St.,
Recently, City of Boise staff conducted a stormwater inspection at Jacksons #7 to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Jacksons #7 appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

As a reminder, the parcel at 3110 W. State St. has onsite stormwater infrastructure consisting of 5 oil water separators and seepage beds. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement









# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 10- Jackson's #53

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Jacksons #53

**Site Address:** 6010 W State St, Boise ID 83703

| | |
|---|---|
| **Site Contact/Title:** Brian Dietz | **Site Phone Number:** 208-853-1231 |
| **Inspector:** Andrea Leonard | **Date:** 7/17/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Gas station/convenience store

| | |
|---|---|
| **NAICS/SIC code:** 5541 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☒ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☐ Sheet flow from property to MS4
☒ Other: unknown/unmapped inlet on property that stormwater drains to

**Types (and #) of stormwater facilities on site:**

☒ Catch basins/inlets, #: 1
☐ Oil/Water Separator, #:
☐ Seepage Bed, #:
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Local contractor pumps vault | |
| **Service Provider:** Local contractor | **Last date maintained/cleaned:** unsure |
| **Comments:** Property seems to be well maintained and taken care of. Property is free of oil and debris. Absorbent on site in case of spill. Site is inspected regularly by DEQ. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** All liquids are stored indoors.

**Waste Disposal:** Dumpsters on property. No hazardous wastes.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. Parking lot is dry swept as needed. Spill kits are available.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

Jackson's #53
6010 W State St.
Boise ID 83703

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 6010 W State St.,
Recently, City of Boise staff conducted a stormwater inspection at Jacksons #53 to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Jacksons #53 appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4).

As a reminder, the parcel at 6010 W State St. has a catch basin that is unknown in origin or pathway. Regular maintenance is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement










Clearance 13'-6"
Coca-Cola


Clearance 13'-2"
Coca-Cola

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 11- Jackson's #122

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Jacksons #122

**Site Address:** 5797 Overland Rd, Boise ID 83705

| | |
|---|---|
| **Site Contact/Title:** Brian Dietz | **Site Phone Number:** 208-343-6926 |
| **Inspector:** Andrea Leonard | **Date:** 7/22/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Gas station/ convenience store

| | |
|---|---|
| **NAICS/SIC code:** 5541 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** No stormwater structures on this site | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** All liquids are stored indoors.

**Waste Disposal:** Dumpsters on property. No hazardous wastes.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. Parking lot is dry swept as needed. Spill kits are available.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

Jackson's #122
5797 Overland Rd.
Boise ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 5797 Overland Rd.,
Recently, City of Boise staff conducted a stormwater inspection at Jacksons #122 to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Jacksons #122 appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4). As a reminder, some runoff from your property drains to the MS4, which drains directly to local waterways.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

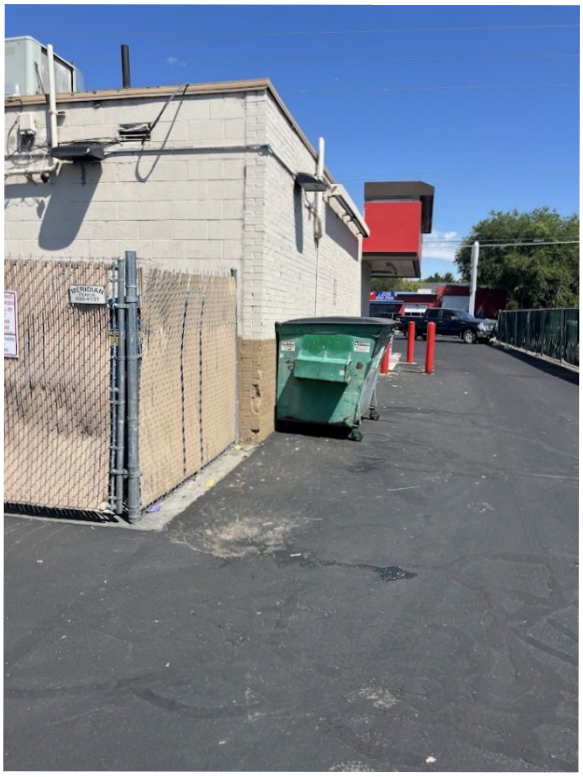
Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement






ICE




Clearance 14' 0"
Jacksons
ICE


VIXEN VIDE

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 12- Bench Garage

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Bench Garage

**Site Address:** 414 S Vista Ave, Boise ID 83705

| | |
|---|---|
| **Site Contact/Title:** Brian Dickens | **Site Phone Number:** 208-724-7304 |
| **Inspector:** Andrea Leonard | **Date:** 8/1/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Auto repair shop

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Used oil has secondary containment. Engines stored outside are drained before storing. No evidence of leaks or spills.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer. If cars need washed, they take them to a commercial washer.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:** Chatted with Brian about good housekeeping measures and the importance of keeping the grounds well maintained.

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

Bench Garage
414 S Vista Ave
Boise ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 414 S Vista Ave,
Recently, City of Boise staff conducted a stormwater inspection at Bench Garage to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Bench Garage appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4). As a reminder, some runoff from your property drains to the MS4, which drains directly to local waterways.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement


PEPSI











# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 13- Mike's Boise Clutch and Automotive

***Priority Watershed Inspection Report***

***Follow-Up Letter***

***Stormwater Runoff Map***

***Stormwater Pictures***

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Mike's Boise Clutch and Automotive

**Site Address:** 2801 S. Broadway Ave, Boise ID 83706

| | |
|---|---|
| **Site Contact/Title:** Mike Maxey | **Site Phone Number:** 208-331-0030 |
| **Inspector:** Andrea Leonard | **Date:** 8/1/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Full service auto repair.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☒ Yes ☐ No

***If yes, what surface water?*** Ridenbaugh Canal

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☒ Direct Connection to MS4
☐ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☒ Catch basins/inlets, #: 2
☒ Oil/Water Separator, #: 1
☒ Seepage Bed, #: 1
☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #:
☐ Detention/dry pond, #:
☐ Permeable pavers, #:
☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:**<br>Two mechanics were on site and told me to walk the property. They stated that the ACHD inlet between the garage and Jimmy John's is constantly flooded. It seems like most runoff goes to the ACHD inlet and some to the private onsite system.<br>*9/23/25: ACHD confirmed this is not maintained by ACHD. City will followup about maintenance of this system with Jimmy Johns and Mike's.* |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☒ Yes ☐ No ☐ N/A | |
| **Inspection Frequency:** Annually or as needed | **Maintenance Frequency**: As needed |
| **Service Methods:** Pump OWS | |
| **Service Provider:** Varies | **Last date maintained/cleaned:** This year |
| **Comments:** Mechanics said the system is regularly cleaned, and ACHD is out frequently looking at the other inlets. | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☐ Yes ☒ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☐ Yes ☒ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |

| | |
|---|---|
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Liquid barrels stored outside, some in a covered area, but some are uncovered and need secondary containment. That area needs some good housekeeping measures as well.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer.

**Comments:**

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

1. The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

2. Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc. Dispose of properly.

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card

## Follow-up Inspection

| |
|---|
| **Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance* |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Mike's Boise Clutch and Automotive
2801 S. Broadway Ave
Boise ID 83706

Re: Priority Watershed Stormwater Inspection

Dear Property owner of 2801 S. Broadway Ave.,
Recently, City of Boise staff conducted a stormwater inspection at Mike's Boise Clutch and Automotive to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, the parcel at 2801 S. Broadway Ave has onsite stormwater infrastructure consisting of a catch basin that leads to a seepage bed. Regular maintenance of this system is the responsibility of the property owner. Please ensure that your stormwater drainage system is on an appropriate routine inspection and maintenance schedule to reduce/eliminate potential stormwater pollution to the system and to groundwater and prevent future costly repairs. Some runoff from the property also drains to the Municipal Separate Storm Sewer System (MS4), which drains directly to local surface waters.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**
2. **Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc. Dispose of properly.**





Boise City Code Section 10-6 drives the City's requirement of these corrective actions. Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

B. Spill Containment System: To prevent the discharge of hazardous substances to the

MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Mike's Boise Clutch and Automotive will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 20, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement















# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 14- Workland Automotive

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Workland Automotive

**Site Address:** 2810 W. Idaho St, Boise ID 83702

| | |
|---|---|
| **Site Contact/Title:** Paul Workland | **Site Phone Number:** 208-870-0015 |
| **Inspector:** Andrea Leonard | **Date:** 7/29/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Auto repair shop, engine services

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **In compliance**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** N/A | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☒ Yes ☐ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☒ Yes ☐ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☒ Yes ☐ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☒ Yes ☐ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Barrels stored out back are empty. No liquid or equipment is stored outdoors. Property is very well maintained.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer.

**Comments:** Property is well maintained and does not appear to have any contributions of pollutants to stormwater.

## Compliance and Follow-up

☒ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☐ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

## Follow-up Inspection

**Follow-up inspection details:** N/A

**Is site in compliance after follow-up inspection?** ☐ Yes ☐ No

Workland Automotive
2810 W. Idaho St.
Boise ID 83702

Re: Priority Watershed Stormwater Inspection

Dear Property owner at 2810 W. Idaho St,
Recently, City of Boise staff conducted a stormwater inspection at Workland Automotive to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

Based on inspection observations, operations at Workland Automotive appeared to pose a minimal threat to the Municipal Separate Storm Sewer System (MS4). As a reminder, some runoff from your property drains to the MS4, which drains directly to local waterways.

In an effort to ensure continued compatible uses of the MS4, and as a service to the community, the City may conduct periodic stormwater inspections at your facility. Please retain all related inspection information on-site for future reference by City inspectors. The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement








NAPA

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## 15- Rudy's Automotive

*Priority Watershed Inspection Report*

*Follow-Up Letter*

*Stormwater Runoff Map*

*Stormwater Pictures*

# Ada County Highway District
# Industrial and Commercial Stormwater Inspection Report

## General Information
(If necessary, complete additional inspection reports for each separate inspection location.)

### Site Information

**Site Name:** Rudy's Auto Services

**Site Address:** 3803 Rosehill Road, Boise ID 83705

| | |
|---|---|
| **Site Contact/Title:** Vasiliy Rudyi, Owner | **Site Phone Number:** 208-384-5281 |
| **Inspector:** Andrea Leonard | **Date:** 8/6/2025 |

**Weather and/or recent precipitation info:** Sunny, no recent precipitation

**Business Description of Industrial and Commercial Activities:**

Family-owned auto repair shop offering services such as tune-ups, oil changes, electrical repairs, and diagnostics.

| | |
|---|---|
| **NAICS/SIC code:** 7538 | **MSGP Sector, if applicable:** N/A |

**Compliance Status:** **Pending**

**MSGP Eligible?** ☐ Yes ☐ Yes; No Exposure Certificate
☒ No, not an eligible sector ☐ No, stormwater does not leave site

### Stormwater Infrastructure Details

**Does the property have a direct connection to surface waters?** ☐ Yes ☒ No

***If yes, what surface water?*** _____

**Does the property discharge to the MS4?** ☒ Yes ☐ No

***If yes:*** ☐ Sheet flow to street from entrance only ☐ Direct Connection to MS4
☒ Sheet flow from property to MS4
☐ Other: _____

**Types (and #) of stormwater facilities on site:**

☐ Catch basins/inlets, #: ☐ Oil/Water Separator, #:
☐ Seepage Bed, #: ☐ Infiltration swale/basin, #:
☐ Retention/wet pond, #: ☐ Detention/dry pond, #:
☐ Permeable pavers, #: ☐ Curb cut, #:
☐ Dry Well, #:
☐ Other : _____

| Industrial/Commercial Discharge Information |
|---|
| **Observed dry weather discharges?** ☐ Yes ☒ No |
| **Observed allowed non-stormwater discharges?** ☐ Yes ☒ No |
| **Roof Drain information:** Roof drains onto asphalt |
| **Comments:** |

| Maintenance Information | |
|---|---|
| **Are SW facilities regularly inspected, maintained, and/or cleaned?** ☐ Yes ☐ No ☒ N/A | |
| **Inspection Frequency:** N/A | **Maintenance Frequency**: N/A |
| **Service Methods:** | |
| **Service Provider:** N/A | **Last date maintained/cleaned:** N/A |
| **Comments:** | |

| Pollution Prevention Best Management Practices (BMPs) | |
|---|---|
| **Has the site implemented BMPs to reduce or eliminate exposure of pollutants from its stormwater discharges?** | ☐ Yes ☒ No ☐ N/A |
| **Are the BMPs implemented at the site adequately maintained?** | ☐ Yes ☒ No ☐ N/A |
| **Are drums and containers of fluids stored with proper cover and containment?** | ☐ Yes ☒ No ☐ N/A |
| **Are paved surfaces free of accumulated sediment and debris?** | ☐ Yes ☒ No ☐ N/A |
| **Are spill kits available and properly stocked, if needed?** | ☒ Yes ☐ No ☐ N/A |
| **Are equipment/vehicles washed, cleaned, fueled and repaired in ways that are protective of stormwater?** | ☒ Yes ☐ No ☐ N/A |
| **Are there any signs of illicit discharges and/or evidence of dumping or washing into the storm drainage system?** | ☐ Yes ☒ No ☐ N/A |

**Chemical/Product Storage:** Used oil is stored outside, along with some other liquid barrels that need secondary containment.

**Waste Disposal:** Oil gets disposed of regularly by a contractor.

**Floor Washing Practices/ Parking lot cleaning / Fueling areas:** No power washing done outside. All indoor washing goes to sewer.

**Comments:** Property needs some good housekeeping measures and secondary containment.

## Compliance and Follow-up

☐ **Daily operations of the site are in compliance and not a concern for significant pollutant discharge to the MS4;** *In compliance- prepare compliance letter and update records*

☒ **Site activities/conditions are a concern for pollutant discharge to the MS4;** *Out of compliance- Prepare letter and schedule follow-up inspection*

☐ **Other:** _____

**Corrective Actions:**

1. The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.

2. Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.

3. Do not store engines, motors, or other equipment or auto parts that may contain oil outdoors.

**Other requests/recommendations:**

**Educational Materials left on-site:** Partners info card, Pollution Prevention BMP Guide

## Follow-up Inspection

| |
|---|
| **Follow-up inspection details:** *City will continue enforcement and compliance efforts and will update ACHD when property is in compliance* |
| **Is site in compliance after follow-up inspection?** ☐ Yes ☐ No |

PUBLIC WORKS DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

Rudy's Automotive
3803 Rosehill Road
Boise, ID 83705

Re: Priority Watershed Stormwater Inspection

Dear Property owner of 3803 Rosehill Road,

Recently, City of Boise staff conducted a stormwater inspection at Rudy's Automotive to evaluate management practices and stormwater discharges with respect to the City's Industrial and Commercial Stormwater Program. The goal of the program and industrial and commercial stormwater inspections is to ensure compliance with local and federal environmental regulations, prevent water pollution, and protect public health and the environment by identifying and correcting practices that could lead to stormwater pollution.

As a reminder, runoff from 3803 Rosehill Road drains to the Municipal Separate Storm Sewer System (MS4), which drains directly to local surface waters.

Based on inspection observations, **corrective actions are required** which include:

1. **The installation of secondary containment around any liquid storage barrels, used oil containers, or other containers that contain hazardous substances as to not impair groundwater quality. Replace caps after each use. If secondary containment is not feasible, the containers/barrels should be stored indoors.**
2. **Keep surfaces (including pavement and gravel) free of oil, grease, dirt, trash, absorbent used for oil spills, etc.**
3. **Do not store engines, motors, or other equipment or auto parts that may contain oil outdoors.**







Boise City Code Section 10-6 drives the City's requirement of these corrective actions. Respective sections read as follows:

**10-6-1-2: Purpose and Intent:**

A. Specified: The purpose and intent of this chapter is to:

1. Protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act.
2. Control nonstormwater discharges to storm drains and reduce pollutants in stormwater discharges.
3. Provide design, construction, operation and maintenance criteria for permanent and temporary on-site stormwater management facilities to control stormwater runoff.
4. Encourage the recharge of groundwater, where appropriate, and prevent the degradation of groundwater quality.

**10-6-2-1. General Requirements and Prohibitions**

D. Property Maintenance: The occupant or tenant, the owner, lessee or proprietor of any real property in the City where there is located a paved sidewalk or parking area shall maintain said paved surface free of dirt or litter to the extent reasonable and practicable and provide an adequate means for the disposal of refuse, rubbish, garbage or other articles so as to prevent such matter from entering a storm drain. Sweepings from said sidewalk shall not be swept or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained on said real property.

**10-6-2-4.Outdoor Storage Areas; Commercial and Industrial Facilities:**

A. Storage Of Hazardous Substances: In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering a storm drain system. In outdoor areas, no person shall store motor vehicles, machine parts or other objects in a manner that may leak grease, oil or other hazardous substances to a storm drain.

B. Spill Containment System: To prevent the discharge of hazardous substances to the MS4, the City may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition. (1952 Code § 8-15-02.04)

With correcting the above actions, operations at Rudy's Automotive will sufficiently protect local water quality and Boise's stormwater infrastructure, and will comply with local stormwater ordinance. Please comply with the above corrections by **September 15, 2025**. City staff will conduct a follow-up inspection. Please retain all related inspection information on-site for future reference by City inspectors.

The City wishes to thank you for your time and attention to this aspect of your business operations. Should you have any questions regarding the contents of this letter or the inspection, please feel free to call my office at 208-608-7565.

Sincerely,

Andrea Leonard
Stormwater Environmental Specialist
Inspection & Enforcement









# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix A

***Facilities Discharging to the MS4***

***Facilities with On-Site Retention***

# 2025 ACHD Industrial and Commercial Inspections

| Facility Name | Drainage | Connection Details |
|---|---|---|
| Auto Metric | Onsite + MS4 | Entrance runoff to MS4 |
| Automotive Diesel Specialist | Onsite | |
| Boise Auto Arena Brothers | Onsite | |
| Boise Auomotive Service | Onsite | |
| Stinker (Broadway) | Onsite | |
| Dale's Auto Care | MS4 | Sheet runoff to MS4 |
| Don's Supreme Auto Service | MS4 | Sheet runoff to MS4 |
| Gary's Place Auto Repair | MS4 | Sheet runoff to MS4 |
| Jackson's #7 | Onsite | |
| Jackson's #53 | Onsite + MS4 | Sheet runoff to MS4 |
| Jackson's #122 | MS4 | Sheet runoff to MS4 |
| Bench Garage | MS4 | Sheet runoff to MS4 |
| Mike's Boise Clutch and Automotive | Onsite + MS4 | Piped connection to MS4 |
| Workland Automotive | MS4 | Sheet runoff to MS4 |
| Rudy's Auto Services | MS4 | Sheet runoff to MS4 |

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix B

*Number of Educational Materials Distributed*

# *Educational Materials Disseminated*

| *Pamphlet* | *Source* | *Revision Date* | *Number Distributed* |
|---|---|---|---|
| Stormwater BMP Booklet | Partners | 2019 | 7 |
| Partners Info Card | Partners | 2023 | 15 |

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix C

*Enforcement Actions*

# 2025 ACHD Industrial and Commercial Inspections

| Facility Name | Corrective Actions/ Notes for maintenance |
|---|---|
| Auto Metric | None |
| Automotive Diesel Specialist | Needs secondary containment for used oil bin and barrels outside. |
| Boise Auto Arena Brothers | Needs secondary containment for used oil bin and barrels outside. Keep surfaces free of oil, dirt, etc. Do not store engines that may leak outdoors. Maintenance is needed. |
| Boise Auomotive Service | None |
| Stinker (Broadway) | None |
| Dale's Auto Care | Needs secondary containment for used oil bin and barrels outside. Keep surfaces free of oil, dirt, etc. Do not store engines that may leak outdoors. |
| Don's Supreme Auto Service | Needs secondary containment for used oil bin and barrels outside. Keep surfaces free of oil, dirt, etc. Do not store engines that may leak outdoors. |
| Gary's Place Auto Repair | None |
| Jackson's #7 | None |
| Jackson's #53 | None |
| Jackson's #122 | None |
| Bench Garage | None |
| Mike's Boise Clutch and Automotive | Needs secondary containment for used oil bin and barrels outside. Keep surfaces free of oil, dirt, etc. |
| Workland Automotive | None |
| Rudy's Auto Services | Needs secondary containment for used oil bin and barrels outside. Keep surfaces free of oil, dirt, etc. Do not store engines that may leak outdoors. |

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix D

***Number of Complaint Driven Inspections***

# 2025 ACHD Industrial and Commercial Inspections

| Facility Name | Complaint Driven Inspeections |
|---|---|
| Auto Metric | 0 |
| Automotive Diesel Specialist | 0 |
| Boise Auto Arena Brothers | 0 |
| Boise Auomotive Service | 0 |
| Stinker (Broadway) | 0 |
| Dale's Auto Care | 0 |
| Don's Supreme Auto Service | 0 |
| Gary's Place Auto Repair | 0 |
| Jackson's #7 | 0 |
| Jackson's #53 | 0 |
| Jackson's #122 | 0 |
| Bench Garage | 0 |
| Mike's Boise Clutch and Automotive | 0 |
| Workland Automotive | 0 |
| Rudy's Auto Services | 0 |

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix E

***Facilities with Non-Stormwater Discharge to the MS4***

# 2025 ACHD Industrial and Commercial Stormwater Inspections

| Facility Name | Non Stormwater Discharges |
|---|---|
| Auto Metric | None |
| Automotive Diesel Specialist | None |
| Boise Auto Arena Brothers | None |
| Boise Auomotive Service | None |
| Stinker (Broadway) | None |
| Dale's Auto Care | None |
| Don's Supreme Auto Service | None |
| Gary's Place Auto Repair | None |
| Jackson's #7 | None |
| Jackson's #53 | None |
| Jackson's #122 | None |
| Bench Garage | None |
| Mike's Boise Clutch and Automotive | None |
| Workland Automotive | None |
| Rudy's Auto Services | None |

# 2025 MS4 Stormwater Commercial & Industrial Inspection Reports

## Appendix F

***Inspection Tracking***

# 2025 ACHD Industrial and Commercial Stormwater Inspections

| Facility Name | Facility Address | SIC | Sector | Status | Inspected | Inspector |
|---|---|---|---|---|---|---|
| Auto Metric | 1703 S. Vista Ave, Boise, ID 83705 | 7538 | N/A | In Compliance | 6/25/2025 | AL |
| Automotive Diesel Specialist | 2719 W. Idaho St., Boise, ID 83702 | 7538 | N/A | Pending | 6/26/2025 | AL |
| Boise Auto Arena Brothers | 9801 Fairview Ave, Boise, ID 83704 | 7538 | N/A | Pending | 7/11/2025 | AL |
| Boise Auomotive Service | 9901 Fairview Ave, Boise, ID 83704 | 7538 | N/A | In Compliance | 7/29/2025 | AL |
| Stinker (Broadway) | 1607 S. Broadway Ave., Boise, ID 83706 | 5541 | N/A | In Compliance | 7/16/2025 | AL |
| Dale's Auto Care | 2602 S Vista Ave, Boise, ID 83705 | 7538 | N/A | Pending | 8/1/2025 | AL |
| Don's Supreme Auto Service | 2703 N. 36th St., Boise, ID 83703 | 7538 | N/A | Pending | 8/6/2025 | AL |
| Gary's Place Auto Repair | 802 S. Orchard, Boise, ID 83705 | 7538 | N/A | In Compliance | 8/6/2025 | AL |
| Jackson's Food & Fuel | 3110 W. State St., Boise, ID 83703 | 5541 | N/A | In Compliance | 7/16/2025 | AL |
| Jackson's #53 | 6010 W State Street, Boise, ID 83703 | 5541 | N/A | In Compliance | 7/17/2025 | AL |
| Jackson's Food & Fuel | 5797 Overland Rd., Boise, ID 83705 | 5541 | N/A | In Compliance | 7/22/2025 | AL |
| Bench Garage | 414 S Vista Ave, Boise, ID 83705 | 7538 | N/A | In Compliance | 8/1/2025 | AL |
| Mike's Boise Clutch and Automotive | 2801 S. Broadway Ave., Boise, ID 83706 | 7538 | N/A | Pending | 8/1/2025 | AL |
| Workland Automotive | 2810 W. Idaho St., Boise, ID 83702 | 7538 | N/A | In Compliance | 7/29/2025 | AL |
| Rudy's Automotive (BSD) | 3803 Rosehill Road, Boise, ID 83705 | 7538 | N/A | Pending | 8/6/2025 | AL |

2025

# CITY OF GARDEN CITY

## INDUSTRIAL & COMMERCIAL STORMWATER DISCHARGE CONTROL INSPECTION

IN CONJUNCTION WITH PERMITTEE ACHD



# Table of Contents

Appendixes ..... 2

Introduction: ..... 3

I. 2025 Updated Industrial Program Database ..... 4

II. A written Summary of the Inspections Performed to Include: ..... 4

a. Total Number of facility inspections (copies of completed inspection forms to be included in appendix to Report) ..... 4

b. List of facilities that discharge stormwater to the MS4 ..... 4

c. List of facilities that have complete onsite retention of stormwater ..... 5

d. Number of educational materials distributed ..... 5

e. Number of Citations issued or Other Enforcement Actions (copies of citations, letters included in appendix) ..... 5

f. Number and list of Complaint-driven Industrial and Commercial Inspections ..... 5

g. List of facilities identified as having non-stormwater discharges to MS4 ..... 5

# Appendixes

Appendix A – Updated Industrial Program Database for fiscal year 2025
Appendix B – ACHD Completed Inspection Forms and Inspection Reports
Appendix C – Industrial & Commercial facilities list that have complete onsite retention
Appendix D – Copies of Citations/ Correction Letters

# Introduction:

Garden City and its permittees (Boise City, ACHD, ITD District 3, Ada County Drainage District No. 3 and Boise State University) hold an Idaho Pollution Discharge Elimination System (IPDES) Municipal Separate Storm Sewer System (MS4) phase 1 permit for stormwater discharge. The Idaho Department of Environmental Quality oversees the IDPES permit, IDS-027561 which took effect October 1, 2021.

As part of the Phase 1 stormwater permit, permittees are responsible for developing and implementing a program to monitor and control pollutants in stormwater runoff from industrial and commercial facilities, control pollutants in stormwater discharges to the "maximum extent practicable" and identify and eliminate unapproved non-stormwater discharges to receiving waters and the MS4. ACHD has chosen to meet the MS4 permit requirements by working with the City of Garden City to maintain a database list of industrial/ commercial facilities subject to the IPDES requirements. To meet these requirements, ACHD has developed this scope of work, which identifies tasks associated with specific elements of the industrial and commercial program. ACHD has contracted out the developed scope of work to Garden City, which Garden City shall complete the work in conformance with section 3.6 of the MS4 IPDES Permit.

# I. 2025 Updated Industrial Program Database

Changes made to the database during the fiscal year of 2025 were updating the inventory list of industrial/ commercial facilities that discharge to the MS4 system or receiving waters.

The Boise River is the only receiving water in Garden City identified on Idaho Department of Environmental Quality's 2024 Integrated Report. The section of the Boise River that flows through Garden City has an assessment as a Category 5 and is part of the 303(d) list.

See Appendix A- Updated Industrial Program Database for fiscal year 2025

# II. A written Summary of the Inspections Performed to Include:

## a. Total Number of facility inspections (copies of completed inspection forms to be included in appendix to Report)

A total of 10 facilities were inspected on behalf of ACHD by Garden City in fiscal year 2025.

See Appendix B - ACHD Completed Inspection Forms and Inspection Reports.

## b. List of facilities that discharge stormwater to the MS4

See Appendix A- Updated Industrial Program Database for fiscal year 2025.

## c. List of facilities that have complete onsite retention of stormwater

See Appendix C – Industrial & Commercial facilities list that have complete onsite retention.

## d. Number of educational materials distributed

10 paper packets that contained Garden City Stormwater codes were distributed to businesses that were inspected on ACHD's behalf.

## e. Number of Citations issued or Other Enforcement Actions (copies of citations, letters included in appendix)

A total of 0 verbal corrective actions were given to the industrial facilities inspected for ACHD in fiscal year 2025.

## f. Number and list of Complaint-driven Industrial and Commercial Inspections

There was no complaint driven inspections involving ACHD (MS4) during fiscal year 2025.

## g. List of facilities identified as having non-stormwater discharges to MS4

No facilities have been identified having non-stormwater discharges.

# Appendix A

Updated Industrial Program Database for fiscal year 2025.

| Facility Name | Address | Owner/ Operator & Contact Number | MSGP Permit Needed, permit number | Connection Type -(MS4 or Direct Discharge) | ACHD Priority Low(L) Medium(M) High(H) | Immediate Discharge to Stormwater Y/N | Immediate Discharge to Waterway Y/N | Watershed/ Receiving Water | Business Activity | SIC Code | Inspection Dates | Compliance Reputation Poor(P) Moderate(M) Good(G) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A Better Auto Repair Service of Boise | 3849 Chinden | Dave Rogers | No Permit | MS4 | L | Y | | | Auto Repair | 7538 | 5/30/2025 | G |
| ACT Towing | 216 W. 36th St, Garden City Idaho 83714 | Andy Reeves/Owner | No Permit | Direct Discharge | M | | Y | Davis Drain | Auto Towing | 7549 | 5/12/2025 | G |
| Activity Group | 204 Ellen St., Garden City Idaho 83714 | | No Permit | Direct Discharge | L | | Y | Thruman Mill | First Aid, Survial Kit Assembly | 5999 | | |
| Ada County Highway District | 3730 Adams St, Garden City, ID 83714 | | | MS4 | | | | Boise River | Highway & Street Construction | 1611 | 11/2/2021 | |
| Adams Painting | 504 E. 45th St. Garden City, Idaho 83714 | | | MS4 | | | | Boise River | Painting Company | | | |
| A&M Auto Repair | 250 W. 36th St. Garden City, Idaho 83714 | Butch Schwartz/ Owner | | MS4 | M | Y | | Davis Drain | Auto Repair | 7538 | 4/30/2025 | G |
| Artis Metal | 3323 E Chinden Blvd., Garden City, ID 83714 | Samantha Gaskell 208-336-1560 | No Permit | MS4 | | | | MS4 to Davis Drain | Sheet Metal Work | 3444 | 6/21/2023 | |
| Atlas Resell Management | 218 W, 36th St Garden City, ID 83714 | | | | | | | | | | | |
| Auto Trust Auto Sales | 3001 Chinden Garden City, Id 83714 | Rick Cox/ Owner | No Permit | MS4 | L | Y | | Davis Drain | Car Sales | 5521 | 8/22/2024 | G |
| B n E Auto Detailing | 107 E. 42nd Street Garden City, ID 83714 | Blerim Aliu (Beli) Owner | No Permit | MS4 | L | y | | Boise River | Auto Detail | 7542 | 6/17/2025 | |
| Bartons Trailer & Hitch(37th St. | 405 E 37th St. #2&3 Garden | Steve Yeoman/ GM | No Permit | MS4 | L | Y | | Private CB direct to ACHD | Custom Hitches | 3714 | 3/9/2023 | G |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Business Park) | City, ID 83714 | | | | | | | Stormwater System | | | | |
| Belmont Brew House | 3840 Chinden Garden City, Id 83714 | | No Permit | MS4 | | | | | Brewery | 5812 | | |
| Benchmark Automotive | 100 E 46th, Garden City, ID 83714 | Derek Jenkins 208-322-5186 | No Permit | Direct Discharge | L | Y | | Direct Discharge to Thurman Mill Canal | Auto Repair | 7538 | 7/31/2025 | G |
| Big Sky Catering( Turnkey Business Park) | 130 Ellen St. Garden City , Idaho 83714 | Johnathan Jacobsen/ Owner 208-375-0937 | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill | Catering | 5812 | 7/30/2019 | |
| Bob's Auto Repair | 4600 Chinden Blvd Garden City, ID 83714 | Matt Smith/Owner 208-322-2568 | No Permit | Direct Discharge | L | Y | Y | Thurman Mill&Davis Drain | Auto Repair | 7538 | 6/27/2025 | G |
| Boise Carbureto r & Small engine(37th Street Business Park) | 405 E. 37th St #4 Garden City, ID 83714 | Ryan Vollmer/ Owner 208-368-0486 | No Permit | MS4 | L | Y | | Private CB direct to ACHD Stormwater System | Auto Repair | 7699 | 6/4/2025 | G |
| Boise Collision Center | 3901 Chinden Blvd., Garden City, ID 83714 | Trey Campbell/ Owner 208-323-8382 | No Permit | MS4 | L | Y | | Discharge to MS4 | Autobody Repair | 7532 | 5/8/2024 | G |
| Boise Cylinder Head | 200 W 35th, Garden City, ID 83714 | Brent Tucker/ Owner 208-384-1011 | No Permit | MS4 | M | Y | | Discharge to MS4 | Auto Repair | 7538 | 7/17/2025 | G |
| Boise Speed | 120 E 41st St. #4 Garden City, ID 83714 | Josh Pegram/Owner 208-866-1662 | No Permit | Direct Discharge | | | | Thurman Mill | Auto Repair | 7538 | 4/14/2023 | |
| Breakaway Inc. | 106 E. 39th Street Garden City Idaho 83714 | Carol Elliott/ Owner | No Permit | MS4 | | | | Discharge to MS4 | Vehicle Disability Lifts | 3537 | 3/25/2019 | |
| Bryans Customs | 3313 Brown St #9 Garden City, ID 83714 | Bryan Stock/Owner 208-331-7001 | No Permit | MS4 | | | | Discharge to MS4 | Auto Repair | 7538 | 2/24/2023 | |
| Bucks Off Road (Riverview Busines Park) | 605 E. 46th Street Garden | Jeff Buck/ Owner | No Permit | Direct Discharge | | | | Discharge to Boise River | Vehicle Modifications | 7538 | 3/23/2023 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Buy Right Auto | 3689 Chinden Garden City, Idaho 83714 | Tom Semancik/ Owner 208-342-2424 | No Permit | MS4 | | | | Discharge to MS4 | Auto Sales | 5521 | 6/16/2021 | |
| Byrider Sales Center | 3880 Chinden Blvd. Garden City, ID 83714 | Thomas Loughran/ GM 208-472-3111 | No Permit | MS4 | | | | Discharge to MS4 | Auto Sales | 5521 | 3/13/2020 | |
| Center Field Detail(Midtown Business Park) | 206 E. 37th St Garden City, ID 83714 | James Dodge/Owner | No Permit | MS4 | M | Y | | ACHD Stormwater System via private CB | Auto Detail | 7542 | 6/25/2025 | P |
| Chandi Lighting Studio(Turnkey Business Park) | 160 Ellen | | | Direct Discharge | | | | Direct Discharge to Thurman Mill Canal | | | | |
| Clearwater Auto Repair(37th st. Business Park) | 417 E 37th St #5,6 Garden City, ID 83714 | Mark Harneck/ Owner | No Permit | MS4 | | | | ACHD Stormwater System via private CB | Auto Repair | 7538 | 2/24/2023 | |
| Cobbys | 4348 Chinden Garden City Idaho 83714 | Patrick Moroney Owner 208-322-7401 | No Permit | MS4 | | | | Discharge to MS4 | Sandwich Shop | 5812 | 9/9/2021 | |
| Commercial Glass | 113 E 33rd St Garden City, Id 83714 | Tracy Johnson/ Office Manager 208-344-6362 | No Permit | MS4 | | | | Discharge to MS4 | Window Installation | 1751 | 8/16/2022 | |
| Commercial Sign & Design | 3313 Brown St #8 Garden City, ID 83714 | Dan Deutshe/ Owner | | MS4 | | | | | Printing | 3993 | 12/12/2023 | |
| Companion Dog Resort | 106 W. 39th Street Garden City, Id 83616 | Connie Smith/ Owner | No Permit | | | | | | Dog Day Care | 752 | 7/18/2014 | |
| Counter Culture | 605 E. 44th St. Garden City, Idaho 83714 | Jack Sovie/ Owner | | MS4 | | | | Discharge to MS4 | Granite Fabrication | 3281 | 8/30/2023 | |
| Crown Performance | 116 E. 40th | Kevin Burke/ Owner | No Permit | MS4 | | | | Discharge to MS4 | Gym | 7991 | 6/30/2021 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Curtis Clean Sweep | 117 E 37th, Garden City, ID 83714 | Joe Zubizareta / Owner 208-343-7600 | No Permit | MS4 | M | Y | | Boise River | Asphalt Maintance | 4959 | 9/6/2024 | M |
| Custom Car Design Inc | 118 E 37th St #1 Garden City, ID 83714 | Scott Swanby/Owner | No Permit | MS4 | | | | ACHD Stormwater System via private CB | Auto Tint | 7542 | 2/7/2023 | |
| Custom Pools & Patio's | 3880 Osage St, Garden City, ID 83714 | Steve Chandler/ President 208-345-2792 | No Permit | | | | | Boise River | Swimming Pool Contractor | 1799 | | |
| Daves Resharp | 115 E. 35th Street Garden City, Idaho 83714 | Dave Hass/ Owner 208-344-4023 | No Permit | MS4 | | | | Boise River | Saw Blade & Knife Sharpening | 3423 | 7/14/2021 | |
| Deadwood Designs | 117 E. 35th Street Garden City, Idaho 83714 | Skully Davis 208-900-8345 | No Permit | MS4 | | | | Rairview Acres | Screen Printing | 2262 | 8/22/2018 | |
| DF Auto Service | 3033 Chinden Blvd. Garden City, ID 83714 | Fredrico Vazquez/ Owner | No Permit | MS4 | M | Y | | MS4 | Auto Repair | 7538 | 5/5/2025 | G |
| Disaster Pro | 3132 Brown Street Garden City, ID 83714 | David Bowman/ Owner | No Pemit | MS4 | | | | MS4 | Restoration | 1799 | 10/26/2023 | |
| Epic Pro Auto Detail(Midtown Business Park) | 202 E 37th St. #3 Garden City, ID 83714 | James Horner/Owner | No Permit | MS4 | | | | ACHD Stormwater System via private CB | Auto Detail | 7542 | 3/27/2023 | |
| ESP Printing(37th Street Business Park) | 317 E. 37th St | | | | | | | | | | | |
| Eurosport | 4448 Chinden Blvd. Garden City, ID 83714 | Jeremy Knopp/Owner 208-323-1450 | No Permit | MS4 | L | Y | | MS4 | Auto Repair | 7538 | 6/16/2025 | G |
| Evergreen Sprinklers | 107 W. 32nd Street Garden City, ID 83714 | Nick Ragsdale 208-342-1771 | No Permit | MS4 | L | Y | | MS4 to Davis Drain | Sprinkler Sales | 3432 | 6/2/2023 | G |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foothills Granite | 116 E. 44th St. Garden City,ID 83714 | Rich Burgo/Owner | No Permit | Direct Discharge | | | | Direct discharge to Thurman Mill | Stone Cutting | 3281 | 5/1/2024 | |
| Franklin Building Supply | 4081 Chinden Blvd., Garden City, ID 83714 | Dale Hansen/Manager | No Permit | MS4 | | | | Davis Drain Ditch | Cut Stone Products | 3281 | 8/21/2023 | |
| Fred Meyer | 5425 Chinden Garden City Idaho 83714 | | | Direct Discharge | | | | Discharge to Thurmin Mill Canal | Supermarket | 5411 | | |
| FreeRiver Distributing | 204 Murray Garden City, Idaho 83714 | Tyson Jones/ Owner | No Permit | MS4 | | | | Discharge to MS4 | Kratom Packaging & Distribution | 5194 | 1/25/2021 | |
| Full Ass Wraps (Riverview Business Park)<br><br>Gem State Electric | 506 E. 45th St #12<br><br>112 E. 45th St. Garden City, Idaho 83714 | Joshua Hinton<br><br>Cliff Brown/ Owner 208-344-5461 | No Permit | Direct Discharge<br><br>MS4 | | | | Boise River<br><br>Discharge to MS4 & Onsite Retention | Electric Motor & Pump Rebuild | 3561 | 8/1/2022 | |
| Genesis Community Health | 215 W. 35th St. Garden City, Idaho 83714 | Kristy Krops/ Dental Coordinator | No Permit | Direct Discharge | | | | Onsite stormwater Discharge to Davis Drain | Health Services | 8021 | 4/29/2024 | |
| Golden Wok Chinese Restaurant | 3948 Chinden Blvd Garden City, Idaho 83714 | Scott Trihn/ Owner | | MS4 | L | Y | | MS4 | Restaurant | 5812 | 11/7/2019 | G |
| Grasmick | 215 E 42nd Street Garden City, Idaho 83714 | Kent Deugan/ Manager | No Permit | | | | | | Produce Sales | 2091 | 5/8/2012 | |
| High Desert Hot Tubs(Riverview Business Park) | 501 E. 46th St # 7 & 8 | Ray Ross/ Owner | | MS4 | | | | MS4 | | | | |
| Home Brew Stuff | 9115 Chinden | Gary Peace/Manager | No Permit | Direct Discharge | L | | Y | Thurman Mill | Brewing Supplies | 5813 | 7/22/2024 | G |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hot Tub Remanufacturing (Riverview Business Park) | 506 E. 45th St # 15,17 & 18 | Chris McKenna/ Owner | No Permit | Direct Discharge | | | | Direct to Boise River | Hot Tube Remanufacturing | | 7/21/2022 | |
| Idaho Saw Service | 117 E. 35th Street Garden City, Idaho 83714 | | | | | | | | | | | |
| Idaho Screen Print(Turnkey Business Park) | 207 Ellen St. Garden City, Idaho 83714 | Gerrod Schumway/ Owner | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill Canal | Screen Printing | 2261 | 2/2/2024 | |
| Idaho Tents & Events | 3900 Chinden Blvd Garden City Idaho 83714 | Russ Jaynes/ Owner Joe McCray/ Maintenance Mng. 208-336-5486 | No Permit | MS4 | | | | Boise River | Party Rental Equipment | 7359 | 7/1/2020 | |
| Idaho Tents & Events | 108 1/2 E. 39th Street Garden City, ID 83714 | Russ Jaynes/ Owner Joe McCray/ Maintenance Mng. 208-336-5486 | No Permit | MS4 | | | | Boise River | Party Rental Equipment | 7359 | 7/1/2020 | |
| Idaho Tents & Events | 111 E. 38th Street Garden City, ID 83714 | Russ Jaynes/ Owner Joe McCray/ Maintenance Mng. 208-336-5486 | No Permit | MS4 | | | | Boise River | Party Rental Equipment | 7359 | 7/1/2020 | |
| Independent Electrical Contractor | 112 W. 32nd St. Garden City, ID 83714 | | No Permit | | | | | Davis Drain Ditch | Storage of Electrical components of homes/ businesses | 1731 | | |
| Interstate Diesel of Idaho | 112 W. 35th Street | Tony Caruso/Owner | | MS4 | | | | | Auto Repair | 7538 | 6/10/2024 | |
| Jay Co. Cabinets( Turnkey Business Park) | 150 Ellen, Garden City, ID 83714 | Gary Leavell 208-323-1292 | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill Canal | Cabinet Manufacturing | 1751 | 11/15/2023 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jimmy's Auto Body(E. 41st Street Place Business Park) | 201 E 41st St. #8 Garden City, ID 83714 | Robert Alkins/Owner 208-484-9317 | No Permit | MS4 | M | | Y | Thurman Mill | Auto Repair | 7532 | 7/18/2025 | G |
| JL Granite & Marble | 4629 Fenton St. Garden City, Idaho 83714 | Jeff & Tabitha Labarreare/ Owner | No Permit | Direct Discharge | | | | Direct Discharge to Fairview Acres Canal | Granite Fabrication | 3281 | 9/7/2023 | |
| Kingston Phoenix Group | 106 W. 32nd Street Garden City, Id 83714 | Joseph Gregg/ Owner 208-323-0282 | No Permit Sector X | | | | | Davis Drain Ditch | Printing | 2752 | 7/11/2018 | |
| Kosmic Kustoms( Riverview Business Park) | 605 E. 46th Street Garden City, ID 83714 | Tim Doyon/ Owner 208-866-9575 | No Permit | Direct Discharge | | | | Direct discharge to Boise River | Body Shop | 7532 | 5/5/2023 | |
| Maravia Corp.(Riverview Business Park) | 604 E 45th St. Garden City, Id 83714 | Tyler Thomas/ Manager 208-322-4949 | No Permit | Direct Discharge | | | | Direct Discharge to Boise River | Raft Manufacturing | 7999 | 8/22/2022 | |
| Medek Inc. | 216 36th, Garden City, ID 83714 | Zach Medek/ Owner 208-343-4343 | No Permit | | | | | Davis Drain Ditch | Pressure Washer Repair | 3594 | 8/1/2018 | |
| Moulding Mud | 110 E. 40th St. Garden City, Idaho 83714 | Dave Daniels/ Owner 208-999-6543 | No Permit | MS4 | | | | Sheet flow to permeable dirt & MS4 | Concrete Moulding | 3272 | 6/14/2023 | |
| Mr Mudd(Riverview Business Park) | 506 E 45th street #11 & 13 | Brian Wheeler/ Owner | No Pemit | Direct Discharge | | | | Direct Discharge to Boise River | Concrete Lifting & Concrete Resurfacing | 3271 | 8/2/2022 | |
| My Family Traditions (44th Industrial Park) | 701 E. 44th St Garden City Idaho 83714 | Janel Miles/ Owner | No Permit | MS4 | L | Y | | Discharge to MS4 | Sauce Production | 2035 | 12/6/2018 | G |
| No Limits-R | 3849 Chinden | Victor Gomez/Manager | No Permit | MS4 | | | | Discharge to MS4 | Auto Repair | 7538 | 6/2/2025 | |
| North End Organic Nursery | 3777 Chinden Blvd., | Lindsay Schramm/ Owner | No Permit | MS4 | | | | Davis Drain Ditch | Nursery Sales | 5261 | 8/19/2022 | |
| O'Reilly Auto Parts | 4432 Chinden Blvd. Garden City | Scott Lough/ Manager 208-323-2860 | No Permit | MS4 | | | | downspouts Connection MS4 on Osage | New Auto Parts Sales | 3714 | 8/3/2023 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Otis Elevator Company | 3132 Brown Street Garden City, ID 83714 | Larry Sanchez/ Sales Manager | No Permit | MS4 | | | | MS4 | Elevator Sales & Service | 1796 | 9/3/2021 | |
| Ozzy's Car Company | 4195 Chinden Blvd., Garden City, ID 83714 | Asmir Alic/ Owner | No Permit | MS4 | | | | Davis Drain Ditch | Used Auto Sales | 5521 | 8/26/2022 | |
| Paradigm Automotive & Performance(Midtown Business Park) | 210 E 37th St. #1A Garden City, ID 83714 | Randy Robert/ Owner 208-538-4600 | No Permit | MS4 | L | Y | | ACHD Stormwater System via private CB | Auto Repair | 7538 | 7/7/2025 | G |
| Pawn 1 | 3602 Chinden | Sevinae Ozuna/ Manager | No Pemit | MS4 | | | | MS4 | Pawn Shop | 5932 | 6/30/2021 | |
| Perfection Drivetrain (Riverview Business Park) | 504 E. 45th St. Garden City, Idaho 83714 | Scott Sniff/Owner | No Permit | Direct Discharge | | | | Boise River | Auto Repair | 7538 | 3/22/2023 | |
| Potter Center(Turnkey Business Park) | 110 Ellen St | Scott Brown/ Owner | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill, Boise River | Cermamic Pottery | 3269 | 1/28/2018 | |
| Restoration Pro (Riverview Business Park) | 505 E 46th Street Unit 2,4,6 | Mathew Evens/ Owner 208-922-8741 | No Permit | Direct Discharge | | | | Boise River | Fire & Flood Remediation | 1799 | 10/30/2023 | |
| Reolas Regal Beagle | 118 E 35th, Garden City, ID 83714 | Reola Mitchell/ Owner 208-345-1766 | No Permit | | | | | Boise River | Dog Groomi ng | 752 | 6/9/2020 | |
| Re-Useum | 3131 Chinden Garden City Idaho 83714 | Kyle Smith/ Manager | No Permit | | | | | Davis Drain Ditch | Used Electronic sales | 8399 | 8/1/2019 | |
| River City Dental | 7723 W Riverside Dr | | No Permit | Direct Discharge | | | | Boise River Wetland | Dentist | 8021 | 4/22/2024 | |
| River Club Golf Course | 6515 State St | | | | | | | Irrigation canal | | | | |
| Riverside Hotel | 2900 Chinden Blvd., Garden City, ID 83714 | Allen Hensley/ Director of Operation 208-343-1871 | No Permit | Direct Discharge | | | | Paved lot retains stormwater onsite except south satalite lot | Hotel | 7011 | 8/8/2019 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rod's Automotive Repair | 4345 Chinden Garden City, Idaho 83714 | Chris Cassidey/ Owner | | MS4 | | | | | Auto Repair | 7538 | 6/5/2024 | |
| Roe Painting(44th Industrial Park) | 703 E. 44th St. #8,9,10, 11 Garden City, Idaho 83714 | Andy Roe/ Owner 208-991-0567 | No Permit | Direct Discharge | L | | Y | Boise River | Painting | 1799 | 6/28/2023 | G |
| Roots Market | 3308 Chinden Garden City, Idaho 83714 | Lea Rainey/ Owner 208-514-2665 | No Permit | MS4 | L | Y | | Boise River | Grocery Store | 5411 | 7/14/2021 | G |
| Rug Bindery (Riverview Business Park) | 515 E. 46th St. Garden City, Idaho 83714 | George Poindexter | | | | | | | | | | |
| Saturn Printing | 179 Ellen St. Unit B Garden City, ID 83714 | Michael Willson/Owner | | Direct Discharge | | | | Drop inlet connected to Thurman Mill | Screen Printing | 2261 | 2/1/2024 | |
| S-Car-Go Repair(37th Street Business Part) | 405 E 37th St. #7 Garden City, ID 83714 | Zach Kipping/ Owner 208-322-6061 | No Permit | MS4 | | | | ACHD Stormwater System via private CB | Boat Repair | 7538 | 2/24/2023 | |
| Sawyer Pest Control | 107 W. 43rd St | | | MS4 | | | | | | | | |
| Shop No 7 Marine | 111 W. 43rd Street Garden City, Idaho 83714 | John Hearne/ Owner Devin Rush/ Owner 208-991-3490 | No Permit Sector R | MS4 | M | Y | | MS4 to wetpond connected to Thurman Mill | Boat Repair | 3732 | 9/11/2024 | M |
| Simply LED | 108 W. 33rd St. Garden City, Idaho 83714 | Chris Drake/ Production Manager 208-344-7533 | No Permit | | | | | Davis Drain Canal | Sales and Assmberly of LED Lights | 3641 | 6/22/2020 | |
| Simply Painting | 605 E. 44th St., #2 Garden City, ID 83714 | Gary Chappell/ Owner | No Permit | MS4 | | | | Discharge to MS4 | Painting | 1721 | 9/26/2024 | |
| Ranch Club | 3544 Chinden Blvd Garden City, | Joe Dueno /Regional Manager | No Permit | MS4 | | | | Boise River | Bar | 5812 | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South to North Land Cruisers | 116 E. 44th St. Garden City, ID 83714 | Ian Westmoreland/ Owner | No Permit | Direct Discharge | | | | Discharge to Thurman Mill | Auto Repair | 7538 | 3/16/2023 | |
| Specialty Environmental Service Inc. | 110 E 39th St. Garden City, ID 83714 | Jeff Berlik/ Owner 208-327-9977 | No Permit | | | | | Boise River | Chemical Recylin g & Transportation | 4953 | 8/28/2017 | |
| Stagecoach Inn | 3132 Chinden Garden City, Idaho 83714 | Wanda Martinet/ Owner | No Permit | MS4 | L | Y | | Boise River | Retaurant | 5812 | 7/9/2021 | G |
| Steele Auto Repair | 104 E. 44th, #102 Garden City, ID 83714 | Dean Steele/Owner | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill Canal | Auto Repair | 7538 | 7/26/2023 | |
| Sterling Battery Company | 4479 Chinden BLVD Garden City, ID 83714 | Jim Peterson/ Manager 208-376-1721 | No Permit | MS4 | M | | Y | Davis Drain Ditch | Battery Manufacturing | 3691 | 8/20/2024 | G |
| Studio 2000 | 599 E. 44th St. #5,6 Garden City, ID 83714 | Kevin Mills/Owner | No Permit | MS4 | | | | Boise River | Sign Manufacturing | 3993 | 1/9/2024 | |
| Sunshine Window Cleaning | 3132 Brown Street Garden City, ID 83714 | James Wekmon/ General Manager | No Permit | MS4 | | | | MS4 connected | Janitorial Service | 7349 | 9/3/2021 | |
| SuperShine Carpet Cleaning | 9580 Umpque River Ct | Adam Vasquez/ Owner | No Permit | MS4 | | | | Residential Home | Carpet Cleaning | 7217 | 2/6/2025 | |
| The Potter Center (Turnkey Business Park) | 110 Ellen St. Garden City, ID 83714 | Scott Brown/ Owner | No Permit | Direct Discharge | | | | Direct Discharge to Thurman Mill, | Ceramic Pottery | 3269 | 1/28/2018 | |
| The Cutting Shop | 507 E 46th St. #15 Garden City, ID 83714 | Jerry James/ Owner | No Permit | Direct Discharge | | | | Direct discharge to Boise River | Metal Cutting | 3541 | 3/18/2025 | |
| The Wrap Shop | 9165 Chinden #103 | Randy Rhoades/ Owner | | Direct Discharge | | | | Thurman Mill Canal | Auto Wraps | 3993 | 12/20/2023 | |
| Time Automotive Distributors | 106 W. 36th Street Garden City Idaho 83714 | Jay Hilton/ Assistant Manager | No Permit | Direct Discharge | | | | Direct discharge to Canal | Auto Part Sales | 7538 | 7/27/2023 | |
| TWH Construction (River | 605 E 46th St. Garden | Todd Heist | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Treasure Valley Street Rod | 221 W 37th St. #A Garden City, ID 83714 | Dave Horsley/Owner 208-345-7637 | No Permit | Direct Discharge | | | | Thurman Mill Canal | Auto Repair | 7538 | 6/13/2023 | |
| Two Men and a Truck | 5414 Chinden | | | | | | | | | | | |
| Ultimate Transmissions | 220 W 37th St, Garden City, ID 83714 | Dave Fleenor/Owner 208-631-2133 | No Permit | MS4 | M | Y | | Thurman Mill Canal | Transmission Repair | 7537 | 9/23/2024 | M |
| Universal Machine Inc | 615 E. 44th St. #12&13 Garden City, Id 83714 | Terry Johnson/ Owner 208-375-1110 | No Permit | | | | | Boise River | Machine Shop | 3599 | 8/13/2018 | |
| UPS | 116 E 42nd St, Garden City, ID 83714 | Tina Palmer 208-327-1544 | No Permit | MS4 | L | Y | | Thurman Mill Canal/ Fairview Acres Canal | Courier Services | 4215 | 9/24/2024 | G |
| Vineyard Community Church (Building 4902 Chinden) | 4950 Bradley St, Garden City, ID 83714 | Stephan Ball/ Facility Manager 208-377-1477 | No Permit | | | | | ????? | Religious Organization/ Pinball Museum | 8661 | 8/21/2019 | |
| Wave Property Management | 201 E 36th St, Garden City, ID 83714 | Joy Luedtke/ Owner | No Permit | MS4 | | | | | Property Management | 6514 | | |
| Wendy's | 5525 Chinden Garden City, ID 83714 | Reyanna Barrients/ GM | No Permit | | | | | Thurman Mill | Restaurant | 5812 | 5/5/2023 | |
| West Pak | 254 W. 36th St. Garden City, Idaho 83714 | Rod McDowell/ Owner 208-345-9640 | No Permit | MS4 | M | Y | | Davis Drain | Refuse Compactor Service | 4953 | 4/8/2025 | M |
| Western Collective | 111 W. 33rd Street Garden City, Idaho 83714 | Kyle Manns/ Head Brewer ; Cary Prewitt/ Owner | No Permit | MS4 | M | Y | | Davis Drain | Brewery | 282 | 7/18/2024 | G |
| Western Heating & Air | 4980 Bradley St. Garden City, ID 83714 | Bob Barnes/ Owner 208-375-6106 | No Permit | MS4 | | | | Boise River | HVAC Dealer | 1711 | 9/6/2019 | |
| Wholesale Auto | 4409 Chinden | | | Direct Discharge | | | | Thurman Mill | | | 4/4/2023 | |
| Wrap World Ink | 4546 Chinden | Casey Clair/Owner | No Permit | MS4 | | | | | Auto Wraps | 3993 | 12/27/2023 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wrecked Metal (Riverview Business Park) | 605 E. 46th Street Garden City, ID 83714 | Matt Whitlock/ Owner 208-602-3899 | No Permit | Direct Discharge | | | | Boise River | Metal Fabrication | 3711 | 7/29/2022 | |
| Yesco Sign Company | 416 E. 41st Street | Curt Ivory/ Production Manager 208-891-9312(cell) | No Permit | Direct Discharge | L | | Y | Direct Discharge to Fairview Acers Canal | Sign Manufacturing | 3993 | 12/8/2023 | G |
| Zion Warne Glass Art Studio | 3242 Chinden Blvd Garden City, Idaho 83714 | Zion Warne/ Owner 208-761-6402 | No Permit | | | | | Boise River | Glass Art Blowing | 3299 | 8/11/2021 | |
| Vacant Building | 112 W 34th St, Garden City, ID 83714 | | | | | | | Davis Drain Ditch | | | | |
| Vacant Building | 110 E 35th, Garden City, ID 83714 | | | MS4 | | | | Discharge to MS4 | | | | |
| Vacant Building | 4048 Chinden Blvd Garden City, ID 83714 | | | | | | | Boise River | | | | |
| Vacant Building | 3480 Chinden Garden City, 83714 | | | | | | | Boise River | | | | |
| Vacant Building | 4340 Chinden Blvd Garden City, Id 83714 | | | MS4 | | | | Discharge to MS4 | | | | |
| Vacant Building | 110 W. 31st Street | | | | | | | | | | | |
| Vacant Building | 3300 Chinden Blvd Garden City, Idaho 83714 | | | | | | | | | | | |

# Appendix B

ACHD Completed Inspection Forms and Inspection Reports.

# 2025 ACHD Industrial Stormwater Inspection Report

A&M Services Center

| | |
|---|---|
| Business Name: | A&M Services Center |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | April 30, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 250 W. 36th St.<br>Garden City, Idaho 83714 |
| Contact: | Butch Schwartz / Owner |
| Phone: | 208-342-8981 |
| SIC Code: | 7538 |
| MSGP Industrial Sector: | General Automotive Repair |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Davis Drain |
| Previous Inspection Date: | April 17, 2023 |

## Inspection Report

**Industrial Activity and Site Description:**

A&M Services Center has two employees and does mechanical work on motor vehicles. A&M Services Center is located in the east portion of a multiunit complex. West-Pak Equipment occupies the west portion of the complex. A&M Services Center facility is comprised of a costumer lounge, several work stations, a restroom, and a repair shop. The shop has (1) floor drain connected to the sanitary sewer. No mechanical work or fluid storage is performed near the drain. Waste oil and waste solvent (from the parts cleaner) is stored in a designated waste tank outside. The waste tank is covered and has secondary containment. West-Pak Equipment also utilizes the waste tank. Gem State services the waste tank, last service was 04/09/2025. Floor Dry is used on any accidental spills.

Several vehicles in need of repair are stored outside. The vehicles do not show any sign of illicit discharge.

The multiunit complex is completely paved except the south side of the complex which is grass/gravel and borders the Davis Drain Ditch.






**Stormwater Management: Onsite retention and MS4 connection:**

There are no engineered stormwater structures on A&M Services Center portion of the complex. West-Paks portion has (1) engineered stormwater structure. Sheet flow from A&M Services Center paved portion streams into a MS4 on W. 36th St. It appears the MS4 discharges into the Davis Drain Ditch.





**Facilities Equipment and Maintenance Practices:**

A&M Services Center appears to be utilizing the required BMPs to any and all outside storage items. The dumpster does not show any sign of illicit discharge. The dirt/gravel area is maintained and the paved area is free of debris. A&M Services Center does not wash vehicles at this location and no repair work is performed outside.





**Summary:**

Following the inspection, I informed Butch Schwartz that A&M Services Center was in substantial compliance with stormwater regulation..

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** A&M Services Center **Date & Time:** 04/30/2025 **Phone:** 208-342-8981
**Address:** 250 W. 36th St. **Contact/Title:** Butch Schwartz/Owner
**Facility Primary SIC code (by revenue):** 7538 **Business Description:** General Automotive Repair
**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____
**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___**Follow-Up**
**Previous Inspection Date:** 04/17/2023 **Next Inspection Tentative Date:** 04/15/2026

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) X Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns: None

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? Waste oil
Have BMPs been implemented (Y) (N) BMP Types: Covered storage and secondary containment

**Outdoor Chemical/Product Storage, Other Storage Areas:** See above

**Outside Storm Drains:** MS4

**Comments:** _____

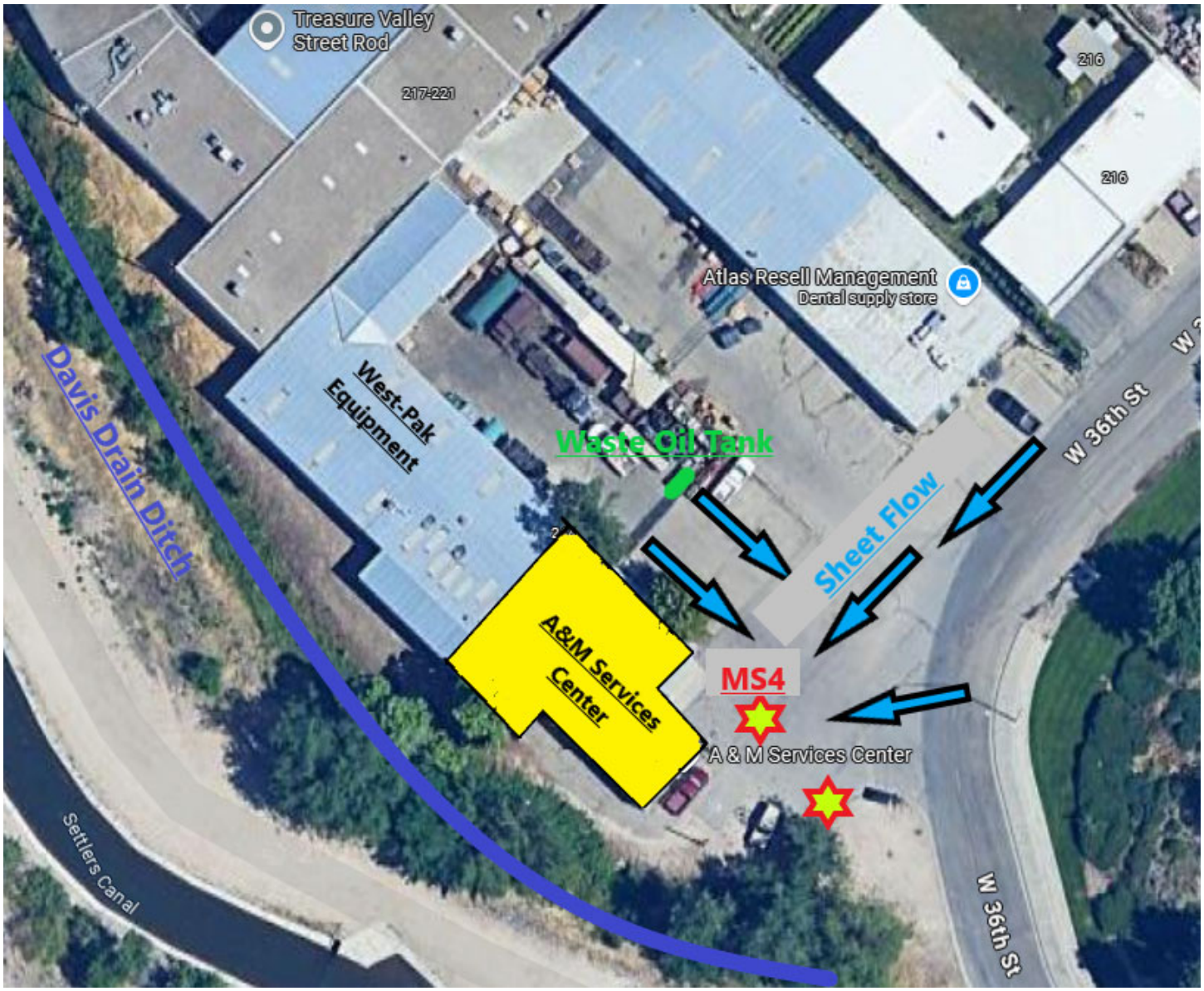
**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Treasure Valley
Street Rod
217-221
216
216
Atlas Resell Management
Dental supply store
West-Pak
Equipment
Davis Drain Ditch
Waste Oil Tank
W 36th St
Sheet Flow
A&M Services
Center
MS4
A & M Services Center
Settlers Canal
W 36th St

# 2025 ACHD Industrial Stormwater Inspection Report

ACT Towing

| | |
|---|---|
| Business Name: | ACT Towing |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | May 12, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 216 W. 39th St<br>Garden City, Idaho 83714 |
| Contact: | Andy Reeves / Owner |
| Phone: | 208-375-3121 |
| SIC Code: | 7549 |
| MSGP Industrial Sector: | Automotive Services |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Davis Drain |
| Previous Inspection Date: | April 19, 2023 |

## Inspection Report

**Industrial Activity and Site Description:**

ACT Towing has three employees and preforms towing and off-road recovery of motor vehicles. ACT Towing utilizes (3) units in a multiunit building, one unit is for office/ lounge, and two units are for storage.. There are no floor drains in any of the units. ACT Towing does not perform mechanical work on vehicles.

ACT Towing has an outdoor storage area on the west side of the facility. Multiple vehicles that have been towed are stored in the outside storage area. The vehicles do not show any sign of illicit discharge. The outdoor storage area is comprised of dirt/gravel mix.

Affordable & Dependable Towing utilizes a dirt/gravel area for vehicle storage on the east side of the facility.

The south side of the facility borders Settlers Canal. The north side of the facility is paved.

The Davis Drain enters a culvert on the east side of the property and appears again on the west side of the property.



**Stormwater Management: Onsite retention and MS4 connection:**

There are no engineered stormwater structures on ACT Towing property. Sheet flow from the north paved area streams onto the east and west side dirt/gravel storage areas of the property. During a heavy storm event sheet flow streaming to the west side dirt/gravel storage area will discharge into the Davis Drain via onsite culvert.



**Facilities Equipment and Maintenance Practices:**

There is an engine being stored on the north paved area without proper BMPs. After being informed of the BMP violation, ACT Towing immediately applied the proper BMPs to the stored engine. The dumpster does not show any sign of illicit discharge. The dirt/gravel areas are maintained, and the paved areas are free of debris. ACT Towing does not wash vehicles at this location and no repair work is performed onside.





**Summary:**

Following the inspection, I informed Josh Washabaugh that ACT Towing was in substantial compliance with stormwater regulation..

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** ACT Towing **Date & Time:** 05/12/2025 **Phone:** 208-375-3121

**Address:** 216 W. 39th St. **Contact/Title:** Andy Reeves / Owner

**Facility Primary SIC code (by revenue):** 7549 **Business Description:** ~~Automotive Services~~

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___ **Follow-Up**

**Previous Inspection Date:** 04/19/2023 **Next Inspection Tentative Date:** 04/15/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection X Other, describe: Sheet flow from dirt/gravel area to Davis Drain

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____ Exposed engine needs BMPs

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? Towed vehicle storage
Have BMPs been implemented (Y) (N) BMP Types: tarps, oil pan,

**Outdoor Chemical/Product Storage, Other Storage Areas:** None

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: GC Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Sword Motorsports
Culvert
Dirt/Gravel
R&R Wheel and Tire corp
Settlers Canal
ACT Towing
Sheet Flow
Davis Drain
39th St E
ACT Towing and Off-Road Recovery
2320
212
208
Culvert
Settlers Canal
Dirt/Gravel
Google

# 2025 ACHD Industrial Stormwater Inspection Report

Benchmark Automotive

| | |
|---|---|
| Business Name: | Benchmark Automotive |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | July 31, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 104 E 46th St.<br>Garden City, Idaho 83714 |
| Contact: | James Butler/ Owner |
| Phone: | 208-322-5186 |
| SIC Code: | 7538 |
| MSGP Industrial Sector: | General Automotive Repair |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Davis Drain, Thruman Mill |
| Previous Inspection Date: | May 07,2024 |

## Inspection Report

**Industrial Activity and Site Description:**

Benchmark Automotive performs diagnosis, maintenance, repair, and inspections on motor vehicles. Benchmark Automotive occupies a stand-alone facility on E. 46th St. The facility is fully paved on the east side along E. 46th St. This area is used for customer vehicles and is sloped toward E. 46th St. The north side of the facility is covered, enclosed, and is used for storage. The south and west side of the facility is dirt/gravel mix. The west dirt/gravel area is used for employee parking, no repair work is performed outdoors. There is a 36’ x 21’ concrete approach on the west side of the facility.

Benchmark Automotive’s pretreatment equipment consists of a sump, documentation indicates routine inspection and maintenance. There are 3 floor drains throughout the shop, all of which have been plugged. No vehicle washing, engine cleaning or floor rinsing is performed in

the dry area of the shop. Used coolant and oil are stored indoors and have secondary containment. Documentation indicates routine service by outside vendors. The shop utilizes 1 aqueous parts cleaner which is serviced inhouse with the liquid waste being discharged into the waste oil container. Floor Dry or Pig Mat is used for any spills.



**Stormwater Management: Onsite retention and MS4 connection:**

There are no onsite stormwater structures. Roof discharge and stormwater from the North, South, and West portion of the facility appear to be retained on site. During a large stormwater event, sheet flow on the SW side of the facility has the potential to stream into an MS4 located 20' south via E. 46$^{th}$ Pl. Sheet flow from the paved parking area on the east side of the facility streams down a gravel area and into an MS4 via E. 46$^{th}$ St. The MS4 is approximately 50' north of the lot.



**Facilities Equipment and Maintenance Practices:**

The dumpsters and metal recycle bin do not show any sign of illicit discharge. All vehicles that have been repaired and that need repair do not show any sign of illicit discharge. The paved areas are well maintained. Benchmark Automotive does not do any mechanical work or vehicle washing outside. No sources of rooftop pollutants were observed.

**Summary:**

Following the inspection, I informed James Butler that Benchmark Automotive is in substantial compliance with stormwater regulation.







# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Benchmark Automotive **Date & Time:** 07/31/2025, 1:00pm **Phone:** 208-322-5186

**Address:** 104 E 46th ST. **Contact/Title:** James Butler/Owner

**Facility Primary SIC code (by revenue):** 7538 **Business Description:** General Automotive Repair

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only X **Initial** Or ___ **Follow-Up**

**Previous Inspection Date:** 05/07/2024 **Next Inspection Tentative Date:** 07/15/2026

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit: _____ Permit No.: _____ Issue Date: _____ Expiration Date: _____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes X No If Yes, explain: _____ Number of AST's: ____

Have any spills been reported in the last three years? ☐Yes X No If so, material spilled: _____

Quantity (gal): _____ Any mitigation action taken: _____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street X On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency: _____ By whom? _____ Last Cleaned? _____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency: Swept when needed/discharged to garbage By whom? staff Last Cleaned? NA

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results: _____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns: None

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? Storage of customer vehicles

Have BMPs been implemented (Y) (N) BMP Types: As needed

**Outdoor Chemical/Product Storage, Other Storage Areas**: outdoor storage is covered

**Outside Storm Drains**: none onsite

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____

Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Concrete Approach
Dirt/Gravel
Covered Storage
Benchmark Automotive
MS4
E 46th St
E 46th Pl
Concrete Approach
Dirt/Gravel
Dirt/Gravel
Gravel Area
Paved Parking
E 46th St
Osage St
Bob's Auto Repair of Boise
46
101
108
Company

# 2025 ACHD Industrial Stormwater Inspection Report

Bob's Auto Repair

| | |
|---|---|
| Business Name: | Bob's Auto Repair |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | June 27, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 4600 Chinden<br>Garden City, Idaho 83714 |
| Contact: | Matt Smith/ Owner |
| Phone: | 208-322-2568 |
| SIC Code: | 7538 |
| MSGP Industrial Sector: | General Automotive Repair |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Davis Drain, Thruman Mill |
| Previous Inspection Date: | March 21,2023 |

## Inspection Report

**Industrial Activity and Site Description:**

Bob's Auto Repair performs maintenance, repair, and inspections on motor vehicles. Bob's Auto Repair occupies a stand-alone facility at the corner of E. 46th St. and W. Chinden Blvd. The facility is completely paved except a 25' x 30' lawn on the south side of the facility. There are no floor drains in the facility. Waste oil is stored outside in a 350-gal. container with secondary containment, there is a heavy tarp covering the container to mitigate any stormwater. Waste coolant is stored outside in a shed that has secondary containment. The shed is located in the NW paved storage area.

Bob's Auto Repair does not perform body work at this location. Floor Dry is used on any leakage/spills. Floors are swept by staff when needed.

Bob's Auto Repair does not wash vehicles on site. Vehicles that have been repaired and in need of repair are stored in the SW paved parking lot.










**Stormwater Management: Onsite retention and MS4 connection:**

Sheet flow from the east paved parking area, the northwest paved storage area, and the north paved storage area streams into an onsite stormwater structure located in the northeast corner of the property. The stormwater structure is 0% full of debris and discharges into the Davis Drain. Sheet flow from the southwest paved overflow parking area streams into a small drop drain or into a MS4 via 46$^{th}$ Place. The small drop drain discharges into the Thurman Mill canal via underground drainage pipe.



**Facilities Equipment and Maintenance Practices:**

The dumpsters and metal recycle bin do not show any sign of illicit discharge. All vehicles that have been repaired and that need repair do not show any sign of illicit discharge. The paved areas are well maintained. Bob's Auto Repair does not do any mechanical work outside.

**Summary:**

Following the inspection, I informed Matt Smith that Bob's Auto Repair is in substantial compliance with stormwater regulation.


NAPA CARE





# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Bob's Auto Repair **Date & Time:** 06/27/2025, 8:22am **Phone:** 208-322-2568

**Address:** 4600 Chinden **Contact/Title:** Matt Smith/ Owner

**Facility Primary SIC code (by revenue):** 7538 **Business Description:** General automotive Repair

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___**Follow-Up**

**Previous Inspection Date:** 03/21/2023 **Next Inspection Tentative Date:** 06/25/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) X Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection X Other, describe: Drop inlet to Thurman Mill via pipe

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency: When needed, vaccuum By whom? Commerical Co. Last Cleaned? 2023

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? waste oil and coolant
Have BMPs been implemented (Y) (N) BMP Types: Secondary containment, storage under cover

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


MS4
Drop Drain
Stormwater Structure
Lawn
Bob's Auto Repair
46TH
46
Benchmark Automotive
Bob's Auto Repair of Boise
E 46th Pl
E 46th St
Chinden Blvd
26
20
4585

# 2025 ACHD Industrial Stormwater Inspection Report

Boise Carburetor and Small Engine Repair

| | |
|---|---|
| Business Name: | Boise Carburetor and Small Engine Repair |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | June 4, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 405 E. 37th St. #4<br>Garden City, Idaho 83714 |
| Contact: | Ryan Vollmer/ Owner |
| Phone: | 208-869-6230 |
| SIC Code: | 7699 |
| MSGP Industrial Sector: | Repair Shop |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Boise River |
| Previous Inspection Date: | February 28, 2023 |

## Inspection Report

**Industrial Activity and Site Description:**

Boise Carburetor and Small Engine Repair has one employee and repairs carburetors, ATVs, and snowmobiles. Boise Carburetor and Small Engine Repair occupies one unit in a multiunit complex. The complex is completely paved. There are no floor drains in the unit.

Boise Carburetor and Small Engine Repair stores all waste oil indoors in a dedicated 100-gallon container. Floor Dry or Pig Mat is used on any spills. Floors are swept by staff when needed.

Boise Carburetor and Small Engine Repair has an outdoor storage area on the south side of the complex. The storage area houses projects that have been completed and others in need of service. All outdoor stored projects show no sign of illicit discharge and do not appear to be a threat to the stormwater system.






**Stormwater Management: Onsite retention and MS4 connection:**

Sheet flow from the paved areas streams directly into the MS4 at the junction of Adams St. and E. 37th St. via a drop drain on site.









**Facilities Equipment and Maintenance Practices:**

The dumpsters do not show any sign of illicit discharge. The paved areas are free of debris. Boise Carburetor and Small Engine Repair does not wash work projects at this location and no major repair work is performed onside.

**Summary:**

Following the inspection, I informed Ryan Vollmer that Boise Carburetor and Small Engine Repair is in substantial compliance with stormwater regulation..

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Boise Carburetor and Small Engine **Date & Time:** 06/04/2025, 10:14a **Phone:** 208-869-6230
**Address:** 405 E. 37th St. #4 **Contact/Title:** Ryan Vollmer/Owner
**Facility Primary SIC code (by revenue):** 7699 **Business Description:** Repair Shop
**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____
**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ Initial or ___ Follow-Up
**Previous Inspection Date:** 02/28/2023 **Next Inspection Tentative Date:** 06/10/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____
Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street ____ On-site detention/ French drain
X Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)
Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)
Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)
Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)
If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____ No outside repair or maintentance

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? ATVs/ snowmobiles/small engines repaired and in need of repair stored outside
Have BMPs been implemented (Y) (N) BMP Types: _____

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Clearwater Auto Repair
413
Barton's Hitch and Trailer Service
Adams St
Drop Inlet
Boise Carburetor & Small Engine Repair
Stear Automotive
S Car Go
Ada Signal & Sign Repair
Storage Area
321
E 37th St
E 37th St
Sheet Flow
438
452
448
444
432
440
436
428
424
420
416
418
414
410
406
402
Call Studios
Sawtooth Pellet Grills
ESP Print and Mail
Print shop

# 2025 ACHD Industrial Stormwater Inspection Report

DF Auto Service

| | |
|---|---|
| Business Name: | DF Auto Service |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | May 05, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 3033 Chinden<br>Garden City, Idaho 83714 |
| Contact: | Fredrico Vazquez / Owner |
| Phone: | 208-345-4000 |
| SIC Code: | 7538 |
| MSGP Industrial Sector: | General Automotive Repair |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Davis Drain |
| Previous Inspection Date: | February 15, 2023 |

## Inspection Report

**Industrial Activity and Site Description:**

DF Auto Service has three employees and does mechanical work on motor vehicles. DF Auto Service occupies a single stand-alone building. DF Auto Service facility is comprised of a costumer lounge, office area, a restroom, storage room, and a repair shop. There are no floor drains in the repair shop or the storage room. No mechanical work or fluid storage is performed outside. Waste oil is stored in the repair shop. The waste oil is burned in the shop heater.

Multiple vehicles that have been repaired and need repair are stored outside. The vehicles do not show any sign of illicit discharge.

The property is completely paved except the east and west side of the facility which is grass/gravel.



**Stormwater Management: Onsite retention and MS4 connection:**

There are no engineered stormwater structures on DF Auto Service property. Sheet flow from the north paved parking area streams onto the east and west side grass/gravel areas of the property. Sheet flow from the south paved parking area streams into a MS4 located at the intersection of W. 31st St. and Brown St. via Stockton St. It appears the MS4 discharges into the Davis Drain.





**Facilities Equipment and Maintenance Practices:**

DF Auto Service appears to be utilizing the required BMPs to any and all outside storage items. The dumpster does not show any sign of illicit discharge. The dirt/gravel areas are maintained, and the paved areas are free of debris. DF Auto Service does not wash vehicles at this location and no repair work is performed outside.







**Summary:**

Following the inspection, I informed Fredrico Vazquez that DF Auto Service was in substantial compliance with stormwater regulation..

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** DF Auto Service **Date & Time:** 05/05/2025 **Phone:** 208-345-4000

**Address:** 3033 Cinden **Contact/Title:** Fredrico Vazquez/Owner

**Facility Primary SIC code (by revenue):** 7538 **Business Description:** General Auto Repair

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___**Follow-Up**

**Previous Inspection Date:** 02/15/2023 **Next Inspection Tentative Date:** 02/10/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

_____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) X Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

_____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____ None

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? Motor Vehicles
Have BMPs been implemented (Y) (N) BMP Types: oil pan, tarp, all when needed

**Outdoor Chemical/Product Storage, Other Storage Areas**: None

**Outside Storm Drains**: Sheet flow from parking lot to MS4

**Comments:** _____

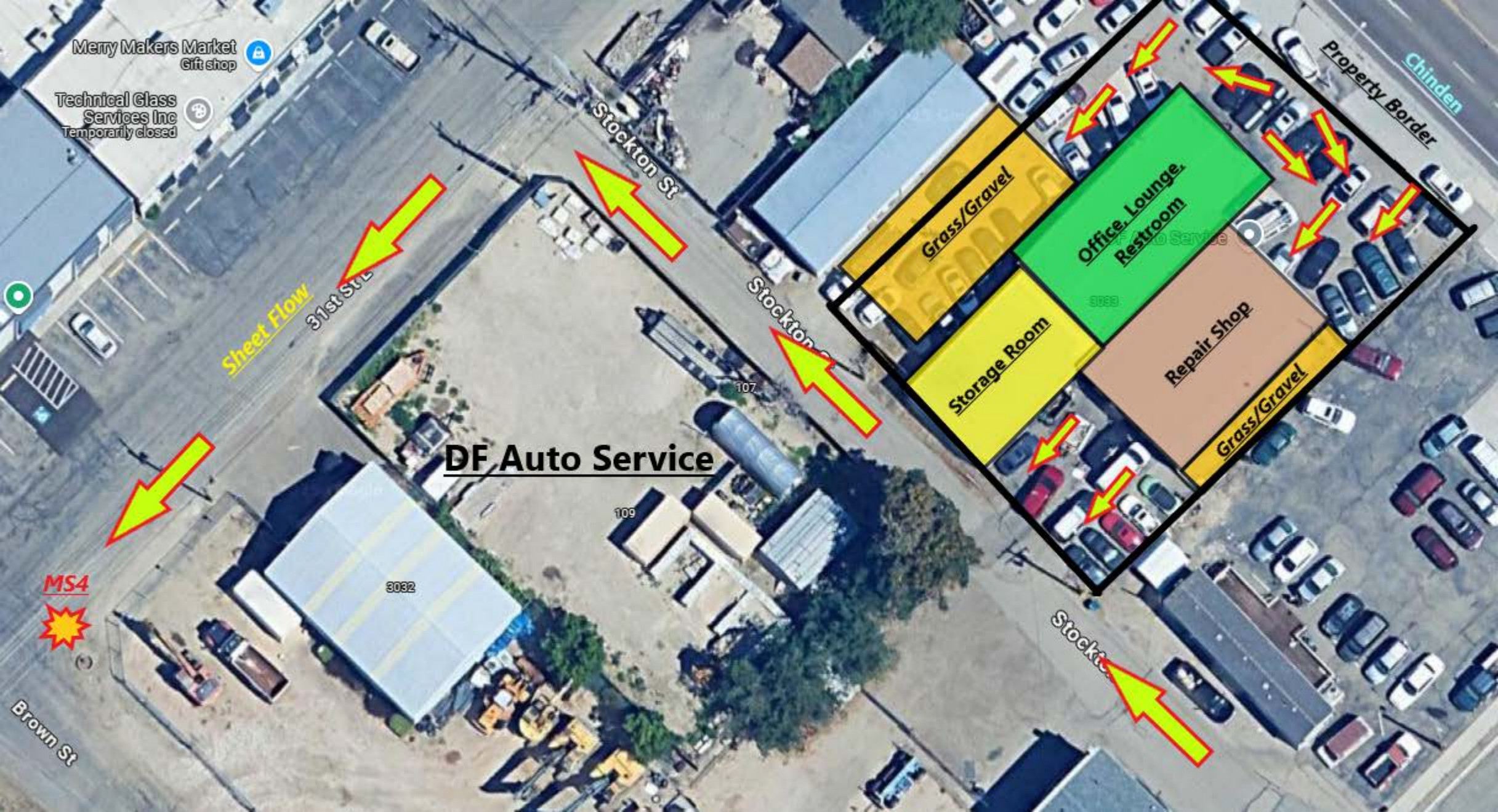
**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Merry Makers Market
Gift shop
Technical Glass Services Inc
Temporarily closed
Stockton St
Property Border
Chinden
Grass/Gravel
Office, Lounge Restroom
Storage Room
Repair Shop
Grass/Gravel
Sheet Flow
31st St
DF Auto Service
107
109
3032
MS4
Brown St

# 2025 ACHD Industrial Stormwater Inspection Report

Eurosport

| | |
|---|---|
| Business Name: | Eurosport |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | June 16, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 4448 Chinden<br>Garden City, Idaho 83714 |
| Contact: | Jeremy Knopp/ Owner |
| Phone: | 208-323-1450 |
| SIC Code: | 7548 |
| MSGP Industrial Sector: | General Automotive Repair |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes |
| Watershed/Receiving Water Body: | Boise River |
| Previous Inspection Date: | March 20,2023 |

## Inspection Report

**Industrial Activity and Site Description:**

Eurosport specializes in service and repair of BMW, Mercedes, Mini Cooper, and Porsche. Eurosport occupies a standalone facility, and a storage lot located across Osage St. to the north. The facility is completely paved, the storage lot is comprised of dirt/gravel. There are no floor drains in the facility. Waste oil and coolant is stored outside in a shed that has secondary containment. The shed is located in the north paved parking area.

Eurosport does not perform any body work on vehicles. Occasionally vehicles are inspected on a lift outside. Floor Dry or Pig Mat is used on any leakage/spills. Floors are swept by staff when needed.

Eurosport does not wash vehicles on site. Vehicles that have been repaired and in need of repair are stored outside in the paved parking lot or in the dirt/gravel lot.




**Stormwater Management: Onsite retention and MS4 connection:**

Sheet flow from the south paved parking area streams into an onsite catch basin located in the southeast corner of the property. The catch basin is 10% full of debris. Sheet flow from the west paved parking area streams onto a grass strip located on the west edge of the property. Sheet flow from the north paved parking area streams into an MS4 via Osage St.



**Facilities Equipment and Maintenance Practices:**

The dumpsters and metal recycle bin do not show any sign of illicit discharge. All vehicles that have been repaired and that need repair do not show any sign of illicit discharge. The paved areas are well maintained. Eurosport does not do any major mechanical work outside.

**Summary:**

Following the inspection, I informed Jeremy Knopp that Eurosport is in substantial compliance with stormwater regulation.




OPEN
BMW
MINI

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Eurosport **Date & Time:** 06/16/2025, 9:42am **Phone:** 208-323-1450

**Address:** 4448 Chinden **Contact/Title:** Jeremy Knopp/ Owner

**Facility Primary SIC code (by revenue):** 7548 **Business Description:** General Automotive Repair

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___**Follow-Up**

**Previous Inspection Date:** 03/20/2023 **Next Inspection Tentative Date:** 06/20/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) X Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency: vacuumed By whom? owner Last Cleaned? 2023

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns: No concerns

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? vehicles stored outside

Have BMPs been implemented (Y) (N) BMP Types: no BMPs needed

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____

Pending __ *(list changes that need to be made for compliant status to be granted)* _____


4418
The Ultimate Tint & Barbershop
Full Tilt Studio
4464a
Dirt/Gravel Lot
4448
4444
Osage
MS4
Grass Strip
North Parking Area
Osage St
West Parking Area
Waste Oil Shed
Sheet Flow
Eurosport
South Parking Area
20
Chinden
Catch Basin
O'Reilly Auto Parts
Auto parts store

# 2025 ACHD Industrial Stormwater Inspection Report

Monkey Auto Detailing

| | |
|---|---|
| Business Name: | Monkey Auto Detailing |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | June 09, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 118 E 37th St. #8<br>Garden City, Idaho 83714 |
| Contact: | Anthonee Bartholit/ Owner |
| Phone: | 208-616-4123 |
| SIC Code: | 7542 |
| MSGP Industrial Sector: | Car Washes |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | No |
| Watershed/Receiving Water Body: | On Site |
| Previous Inspection Date: | October 04, 2024 |

## Inspection Report

**Industrial Activity and Site Description:**

Monkey Auto Detailing has one employee and details automobiles. Monkey Auto Detailing occupies two units in a multiunit complex. The complex shares a paved parking area with another multiunit complex to the north. There are no floor drains in the units.

Monkey Auto Detailing does not perform any mechanical or body work on vehicles. Pig Mat is used on any leakage/spills. Floors are swept by staff when needed.

Monkey Auto Detailing does not wash vehicles on site. Vehicles needing detailing are stored outside in the parking lot. The vehicles are generally in good mechanical condition and there is very little probability of illicit discharge from the vehicles.




**Stormwater Management: Onsite retention and MS4 connection:**

Sheet flow from the paved parking areas streams into an onsite catch basin. The catch basin is 10% full of debris. It appears that the multiunit complex that Monkey Auto Detailing occupies and the south portion of the adjacent multiunit complex retain all stormwater on site. Sheet flow from the approach to the complex's does stream into an MS4 located on E. 37$^{th}$ St.







**Facilities Equipment and Maintenance Practices:**

The dumpsters do not show any sign of illicit discharge. The paved areas are adequately maintained. Monkey Auto Detailing does not wash or repair vehicles outside.

**Summary:**

Following the inspection, I informed Anthonee Bartholit that Monkey Auto Detailing is in substantial compliance with stormwater regulation.

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Monkey Auto Detailing **Date & Time:** 06/09/2025, 1:27pm **Phone:** 208-616-4123
**Address:** 118 E 37th St. **Contact/Title:** Anthonee Bartholit/Owner
**Facility Primary SIC code (by revenue):** 7542 **Business Description:** Car Wash
**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____
**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___**Follow-Up**
**Previous Inspection Date:** 10/04/2025 **Next Inspection Tentative Date:** 06/10/2026

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☒Yes ☐No If Yes, explain: Washing vehicles outside without BMPs Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? _____

Have BMPs been implemented (Y) (N) BMP Types: _____

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____

Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Centerfield Detail
Safe N Soft Carpet Cleaning Boise ID
Multiunit Complex
Catch Basin
Sheet Flow
Monkey Auto Detailing
Multiunit Complex
MS4
E 37th St
Clay St
Golden West Advertising
Sign shop
3756
108

# 2025 ACHD Industrial Stormwater Inspection Report

Paradigm Automotive & Performance

| | |
|---|---|
| Business Name: | Paradigm Automotive & Performance |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | July 07, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 210 E 37th St. #1A<br>Garden City, Idaho 83714 |
| Contact: | Alan Green/ Owner |
| Phone: | 208-538-4600 |
| SIC Code: | 7538 |
| MSGP Industrial Sector: | General Automotive Repair Shops |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | Yes ( at 210 E. 37th St. #1A), No (at 200 E. 37th St. #10) |
| Watershed/Receiving Water Body: | Boise River |
| Previous Inspection Date: | February 06, 2023 |

## Inspection Report

**Industrial Activity and Site Description:**

Paradigm Automotive & Performance is a vehicle mechanical repair and performance shop located in Midtown Business Park. The office and storage facility is located at 210 E 37th St. The repair/mechanical facility is located at 200 E. 37th St., utilizing 4 unit/bays. Both facilities are part of Midtown Business Parks multiunit complex. The complex is completely paved.

Paradigm Automotive & Performance does all mechanical/performance work inside. New and waste fluids are stored indoors. There are no floor drains in the units. Pig Mat or Floor Dry is used on any leakage/spills. Floors are swept by staff when needed.

Paradigm Automotive & Performance does not wash vehicles on site. Vehicles that have been serviced or need service are stored outside in the parking lot. Some engines and transmissions are stored outside on pallets during the day to free up space inside. The engines and transmissions are put back indoors at the end of the day using a pallet jack.




**Stormwater Management: Onsite retention and MS4 connection:**

Sheet flow from the office and storage facility located at 210 E 37th St, streams into an onsite catch basin or a MS4 via E. 37th St. The onsite catch basin is directly connected to the MS4 system at E. 37th St.







Sheet flow from the repair/mechanical facility located at 200 E. 37th St, streams into a private onsite catch basin, the catch basin is 10% full of debris. Stormwater from this location appears to be retained on site.



**Facilities Equipment and Maintenance Practices:**

The dumpsters do not show any sign of illicit discharge. The paved areas are adequately maintained. Paradigm Automotive & Performance appears to be providing adequate BMPs to vehicle engines and transmissions being temporarily stored outside. Vehicles that have been serviced or need service do not show any sign of illicit discharge.

**Summary:**

Following the inspection, I informed Alan Green that Paradigm Automotive & Performance is in substantial compliance with stormwater regulation.

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Paradigm Automotive & Performance **Date & Time:** 07/07/2025, 10:17 am **Phone:** 208-538-4600

**Address:** 210 E. 37th St. #1A **Contact/Title:** Alan Green/Owner

**Facility Primary SIC code (by revenue):** 7538 **Business Description:** General Automotive Repair

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only X **Initial** Or ___ **Follow-Up**

**Previous Inspection Date:** 02/06/2023 **Next Inspection Tentative Date:** 07/07/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes X No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes X No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street ____ On-site detention/ French drain

X Direct connection ____ Other, describe: _____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept by staff when needed

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? serviced and unserviced vehicles
Have BMPs been implemented (Y) (N) BMP Types: pallet jack

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** cb directly connected to MS4 system

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure X Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____
Pending __ *(list changes that need to be made for compliant status to be granted)* _____


220 E 37th St Parking
302310
302
304
The Frog Prints
Custom t-shirt store
MS4
Paradigm
Office/Storage
E 37th St
Caring Transitions
of Treasure Valley
Paradigm Automotive
& Performance
Paradigm
Repair/Performance
Catch Basin
connected to MS4
Elite Auto Sound
Car stereo store
Catch Basin
E 37th St
215
E 36th St
West Tech Boiler
Works, Inc
207
Monkey Auto Detailing
A Lively Chef Catering
Syringa Lab Supplies
205
217
E 37th St
Clay St
Google
Golden West Advertising

# 2025 ACHD Industrial Stormwater Inspection Report

Recycle Boise

| | |
|---|---|
| Business Name: | Recycle Boise |
| Inspection: | Stormwater |
| Inspector: | David Boschma |
| Report Date: | May 28, 2025 |

## Basic Facility Information

| | |
|---|---|
| Address: | 4725 Glenwood<br>Garden City, Idaho 83714 |
| Contact: | Chester Conklin/ Owner |
| Phone: | 208-871-9432 |
| SIC Code: | 5093 |
| MSGP Industrial Sector: | Scrap and Waste Materials |
| Industrial NPDES Permit: | None |
| Stormwater discharge to MS4: | No |
| Watershed/Receiving Water Body: | Groundwater |
| Previous Inspection Date: | November 9,2015 |

## Inspection Report

**Industrial Activity and Site Description:**

Recycle Boise has four employees and collects household and industrial waste. Electronics is the majority of the waste collected by Recycle Boise. The facility consists of a large warehouse with no floor drains.

Recycle Boise does not accept petroleum waste, hazardous waste, or any type of liquid waste products at this facility. This facility collects, sorts and ships waste materials to the appropriate location for recycling. No mechanical work is performed at Recycle Boise. Floors are swept weekly by staff. Collection vehicles are serviced off site.

Recycle Boise has an outdoor storage area on the west and south side of the facility. Multiple plastic totes have been modified to contain nonhazardous material are stored outside. There are several 55 gallon plastic drums with the tops cut off being stored outside.

All outdoor stored materials show no sign of illicit discharge and do not appear to be a threat to the stormwater system.

The south side of the facility is comprised of mostly dirt/gravel. The west, east, and north side of the facility is mostly paved.



**Stormwater Management: Onsite retention and MS4 connection:**

There are no engineered stormwater structures on Recycle Boise property. Sheet flow from the paved areas streams onto a dirt/gravel area that is off site and located to the NW of the property. Stormwater from Recycle Boise's facility does not enter a MS4.



**Facilities Equipment and Maintenance Practices:**

No electronic products are stored outdoors. The dumpsters do not show any sign of illicit discharge. The dirt/gravel areas are maintained, and the paved areas are free of debris. Recycle Boise does not wash vehicles at this location and no repair work is performed onside.





**Summary:**

Following the inspection, I informed Chester Conklin that Recycle Boise was in substantial compliance with stormwater regulation..

# ACHD Industrial Stormwater Inspection Checklist

**Business Name:** Recycle Boise **Date & Time:** 05/28/2025, 9:26am **Phone:** 208-871-9432

**Address:** 4725 Glenwood **Contact/Title:** Chester Conklin/Owner

**Facility Primary SIC code (by revenue):** 5093 **Business Description:** Scrap and Waste Material

**Investigator Name (s):** David Boschma **Inspection:** (Announced) (Unannounced) Other: _____

**Inspection Type:** X Pretx/Stormwater Combined OR ___ Stormwater only ___ **Initial** Or ___ **Follow-Up**

**Previous Inspection Date:** 11/09/2015 **Next Inspection Tentative Date:** 05/25/2027

**Facility type per Stormwater Regs:**

___Industrial Stormwater NPDES Permittee ___Subject to SARA Title III Section 313, a.k.a. EPCRA

___Other or comments: _____

**If an Industrial NPDES Permittee:**

Title of Permit:_____ Permit No.:_____ Issue Date:_____ Expiration Date:_____

Do they have an SWP3? (Y) (N) Is it being implemented? (Y) (N) (*Obtain a copy of the SWP3*)

Are the visual inspection records stored with the SWP3? (Y) (N)

When was the last annual site compliance evaluation? Date: _____

Based on it, were there any changes made to the SWP3? (Y) (N) (*obtain updated copy if necessary*)

Is analytical storm water monitoring required at this site? ☐Yes ☐No If so, how many outfalls are monitored: _____

Date of last significant rain: _____ Have all required samples been collected to date? ☐Yes ☐No

Do the stormwater sample points adequately represent potential pollution from sources? ☐Yes ☐No

Is there a No-Exposure certification? (*NPDES Industrial Stormwater exemption*) ☐Yes ☐No (*If Yes, indicate permit no. above*)

**If a SARA Title III, Section 313 facility:**

Note any leaks or conditions that would lead to discharges of Section 313 water priority chemicals or could lead to direct contact of Stormwater with raw materials, intermediate materials, waste materials or products _____

_____

**Site History**

Have there been any NOV's, citations, or other regulatory actions against the facility by DEQ, IDWR, EPA or others in the past three years? ☐Yes ☒No If Yes, explain: _____ Number of AST's:____

Have any spills been reported in the last three years? ☐Yes ☒No If so, material spilled:_____

Quantity (gal):_____ Any mitigation action taken:_____

**MS4 Discharges**

Is runoff from this site connected to the municipal separate storm sewer system (Y) (N)

If yes, how is it connected? (Indicate on Site Map) ____ Sheet flow from parking lot to street ____ On-site detention/ French drain

____ Direct connection ____ Other, describe: _____

_____

Characterize observed dry weather discharges; determine if permitted, if so, is it compliant w/ permit requirements? If not, compare characteristics to ID the industrial source. ID all industrial sources of all dry weather discharges observed.

Is the facility's drainage connected to a regulated body of water? (Y) (N)
If No, verify on maps

**Facility & Equipment Maintenance Practices**

(A) Are storm drain inlets periodically inspected, maintained, and/or cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(B) Are the parking areas periodically cleaned? (Y) (N) (N/A)

Method & Frequency:_____ By whom?_____ Last Cleaned?_____

(C) Are floor areas including repair and maintenance area floors periodically cleaned? (Y) (N) (N/A)

Locations, methods, & schedules: Swept weekly by staff

(D) Has the facility conducted any tests for illicit connections to the storm drain system (e.g., visual inspections, dye test)? (Y) (N)

If yes, type of testing, locations of testing, and results:_____

(E) Inspect any onsite repair and maintenance, fueling, washing, or airport deicing areas for adequate storm drain protection, spill containment, etc. Note any concerns:_____ No Concerns

# ACHD Industrial Stormwater Inspection Checklist

**Rooftop / Air Discharge Equipment**
Any roof drainage pollutants observed? (Y) (N) If yes, describe _____

**Material Handling/Manufacturing Areas**
Are there any material handling activities exposed to Stormwater? (Y) (N) (Material handling activities include: the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.)
If yes, what materials are being handled? Scrap metal stored in bins

Have BMPs been implemented (Y) (N) BMP Types: Non leak bins

**Outdoor Chemical/Product Storage, Other Storage Areas:** _____

**Outside Storm Drains:** _____

**Comments:** _____

**Educational Info:**

__Stormwater Comm/Ind BMPs* __FOG Brochure __Local Regs __Ada Haz. Waste Disposal

__StormWater Ordinance Brochure __Other: Garden City Stormwater Regulations

**Site Map**
Indicate drainage and discharge structures, paved areas and buildings, surface flow directions, areas of potential soil erosion relative to the MS4. Identify and label all outdoor material storage areas. Distinguish b/w storm and sanitary sewers, ID all manhole locations on map. Note the flow pattern of any unconfined discharges (e.g. cleaning, rinse and wash waters, etc.) and where potential spills may occur including stormwater runoff directions and drop inlets and any oil water separators or other pretreatment devices in the stormwater collection system.

**Compliance Status**
Compliant X Non-compliant __ *(list reasons for non-compliance)* _____

Pending __ *(list changes that need to be made for compliant status to be granted)* _____


Dirt/Gravel Stormwater Retention Area
Sheet Flow
Allure Brows & Beauty
Chinden Lube Express Oil Change
Boise Sandlot
Temporarily closed
Paved Area
Recycle Boise
Property Boundary
Dirt/Gravel Area
N Glenwood St
Pet Supplies Plus Garden City
Pet supply store
Mountain View Dr
N Mountain View Dr
Google

# Appendix C

Industrial & Commercial facilities list that have complete onsite retention.

| Name | Site Address | Type Structure |
|---|---|---|
| 36th St. Apartments | 305 & 309 36th St. | (4)Catch Basins |
| A Better Auto Repair of Boise | 3849 Chinden | (1) Catch Basin |
| ACHD | 302 E 37th Street | (1)Swale |
| Advanced Auto Parts | 4379 W. Chinden Blvd. | (4)Catch Basins, (1)Seepage Bed, (3)Swales, (1)1000 gallon DCI |
| Advanced Auto Sales | 4379 Chinden | Rock Swale |
| Advanced Transmission | 504 E. 43rd | (2) Catch Basins, Gravel Lot |
| Advanta Granite & Stone | 106 W. 41st St | (3) Catch Basins |
| Allan's Automotive | 211 W. 40th St | 100% Permeable Surface |
| Anser Charter School | 202 E. 42nd St | (4)Swales w/sandwindows, (2)Drop Inlets part of DCI connected to Seepage Bed |
| Anvil Fence Company | 106 E. 46th Pl. | (2) Swales |
| Apex Restoration | 119 E. 42nd St | (2)Catch Basins |
| Arcadia Hotel | 3433 Chinden | (7)12" Area drains, (1) drop inlet & 3 area drains connected to (1) sand oil Separator connected to infiltration bed, 4 area drains connected to (1) Catch basin bubbler onto (1) permeable pavers |
| Ashland Creek Business Complex | 5655 Glenwood | |
| Avista Senior Living | 5815 Coffey St. | (2)Catch Basins, (1) Sand oil separator |
| Barbarian Brewing | 114 E. 32nd St | (4) Catch Basins, (1) Swale |
| Bardenay Chinden Bar & Distillery | 3100 Chinden | (1) Drop Inlet, (1) Sand oil separator connected to infiltration bed |
| Bates Auto Beauty | 7979 Marigold | Paved to Permeable area |
| Berts Brewing | 3577 Brown St. | (2)Swales |
| B-Line Signs | 8959 State St. | (1)Catch Basin |
| BMC Properties | 501 E. 47th | (2)Permeable Pavers w/seepage bed underneath, ()Swales |
| Boardwalk Apartments | 507 E. 41st Street | (2)Seepage beds, (2)Sand Oil Separators, (2)Drop Inlets, (3)Sand windows one in swale |
| Boise Electric Motor | 109 E 38th St | (2) Catch Basins |
| Boise Muffler | 111 E. 36th St | Paved to Permeable area |
| Bowman Funeral Home | 10254 Carlton Bay | (1)Catch Basin, (1)Swale |
| Boys & Girls Club Kitchen and Cafeteria Addition | 610 E 42nd St | (1)Seepage bed in grass receives roof discharge with monitoring manhole |

| | | |
|---|---|---|
| Building Remodel 35th & Clay | 175 E. 35th | (2)Sand oil separator/ Catch basins connected to underground infiltration bed, all downspouts connected to infiltration bed |
| Caliber Collision | 5102 Chinden | (5)Catch Basins |
| Carl's Auto Repair | 108 E. 48th St. | (1)Swale, Permeable area |
| Certified Services | 105 W. 41st St | Permeable surface |
| Clubhound | 411 Remington St | (1)Bioretention Swale |
| Coiled Wines | 3408 Chinden | (1)Catch Basin, Permeable area |
| Competitive Crankshafts | 507 E. 45th St #300 | Paved to Permeable area |
| Copestone Apartments | 408 E 43rd St. | Catch Basins |
| Crash Champions | 8247 State St. | (1) Drop Inlet, (1) Sand oil separator, (2)Swales |
| Crosshatch Apartments | 4220 N Adams St | Catch Basins |
| Custom Butcher & Smokehouse | 208 W 41st St | Paved to Permeable area |
| Cutting Edge Landscape | 5373 N Alworth | (1)DCI, Permeable pavers |
| Datum Machining | 105 E. 46th St. | (1)Catch Basin |
| Discount Tire | 6939 W State Street | (2)Swales |
| Dogtopia | 3203 Chinden | (1)Swale w/discharge pipe from catch basin, (4)catch basins connected to bubblers that discharge to infiltration bed, (1) permeable pavers |
| Done Right Flood & Fire Service | 4735 Chinden | (1)Catch Basin, Permeable area |
| Doug's Auto | 117 ½ E. 41st St | Paved/ Dirt Lot |
| Dutch Bros Coffee Office | 5177 Chinden Blvd | (1)Swale |
| Dutch Bros | 5219 Chinden | (2)Swales, (1)Sand Oil Separator connected to Seepage bed, (4)Catch basins connected to separator, (1)catch basin connected to seepage bed along 53rd St. |
| Eberlestock | 215 W. 41st Street | (1)Swale, (1)vault with pump, (2)DCI with seepage bed |
| El Gallo Giro | 5285 Glenwood | (2)Catch Basins |
| Emerson House | 8250 W. Marigold | (1 Drop Inlet, (2)DCI, (1)Swale |
| Epsco | 108 W. 37th St | (5) Catch Basins |
| Fenton Street Warehouse | 4844 Fenton | (1)Swale |
| Foothills church | 9655 State Street | (5) Swale, (1)Catch Basin with infiltration bed |
| Foothills Functional Medicine | 10178 Calton Bay Dr. | (2)Swales, (1) Permeable Pavers |
| Foster Weld | 516 E 46th St. | (1)Swale, Permeable area |
| Future Public School | 511 E. 43rd Street | (5)Swales |

| | | |
|---|---|---|
| Garden City Cannery | 604 E. 46th St | (4) Catch Basins, (1) Swale |
| Garden City- City Hall | 6015 Glenwood | (2) DCI, (2) swales |
| Garden City E. 36th St. Parking Lot | 301 E. 36th Street | (1)DCI, (1)seepage bed, (2)Permeable Pavers |
| Garden City Heron Park Redevelopment | 3858 Reed StHeron Park | (1)Permeable Paver, (1)Swale |
| Garden City Operations Center Shed Addition | 207 E 38th Street | (1)Swales |
| Glads Repair | 4640 1/2 Adams St | Paved Lot Surrounded by Dirt area |
| Grace Assisted Living | 9995 State Street(south Building) | (1)1000 gallon DCI, (1)seepage bed, (2)swale |
| Grace Assisted Living | 9779 W. State St(North Building) | (2)Permeable Pavers |
| Green Services Landscape | 8685 State St | (1)Rock Swale |
| Happy Camper RV Sales | 4770 Chinden | (3)Catch Basins, (1)Swale |
| Happy Camper Too | 4044 Chinden | Catch Basin/ Drain Rock Strip |
| Human Bean Coffee | 10015 State Street | (2)Swales |
| Idaho Events & Professional Concrete Co. | 111 E. 39th Street | (2)Property Swales |
| Idaho Wine Merchant | 5311 Glenwood | (1)Catch Basin to seepage bed; the site has 5 existing catch basins |
| Import Engine Supply | 108 E. 32nd St | Sheet Flow to Surrounding Dirt Lot |
| Intermountain Glass | 3933 Chinden | (1)Swale, (1)350-gallon catch basin/separator to infiltration bed |
| J's Carwash | 3756 Chinden | (4)Catch basins, (2) Sand oil separators to seepage bed, (1)Seepage Bed |
| Jacks Metal Works | 508 E. 46th St | (2)Catch Basins |
| Jacksons Extra Mile | 9545 Chinden | (1)Swale |
| Jalopy Jungle | 5501 State St | (5)Catch Basins |
| Jeff's Import Auto Werks | 4433 Adams | Permeable strip |
| Jim's Drive Train Specialties | 113 E 41st St. | Paved to Permeable area |
| KMD Mechanical | 202 E 45th State St. | (2)Swales |
| Legacy Apartments | 507 E. 51st Street | (1)Swales, (9)1000 Gallon DCI, (5) Seepage Beds, (9)Catch Basin |
| Ling & Louie's | 2288 Garden Street | (5)Catch Basin, (3)Sand oil Separators, (2)Seepage Beds |
| Long Arm Mechanics | 109 E. 41st Street | (2)Catch Basin |

| | | |
|---|---|---|
| Lucianos Restaurant | 3588 Prospect | (1)1000 Oil/Sand DCI, (2)Swales, (1)Catch Basin Connected to infiltration bed |
| Mac's Radiator | 4500 Chinden | (5)Catch Basins |
| Mattress Firm | 7227 State Street | (1)Swale, (1)Catch Basin, Permeable Pavers |
| Maverik Country Store | 8561 State St. | (4)Catch Basins, (1)Sand oil Separator, (1)Swale |
| Meadow Gold | 204 W. 41st St | (5) Catch Basins |
| Metro Express Carwash | 8200 Chinden | (3)Swales, roof drains to northwest swale |
| Mike Minegar's Auto Body | 4660 Chinden | (2)Catch Basins, Permeable strip |
| Miracle Ear Carlton Bay | 10557 Carlton Bay | (3)Catch Basin DCI connected to (3) Infiltration Beds |
| Monkey Auto Detail | 118 E 37th St #8 | (1) Catch Basin |
| Mountain West Carwash | 5305 Glenwood | (2)Catch Basins |
| Mr. Mudd | 400 E 52nd Street | (3)Swales, (1)Catch Basin |
| Nelsons RV Expansion | 106 W. 53rd St | (5) Catch Basins, (3) Seepage beds |
| Nelson's RV's | 5309 Chinden Blvd | DCI |
| No limits-R | 3849 W. Chinden | (1) Catch Basin |
| Parkway Lot 50 | NW corner of Adams & 42nd | (3)Stormtech chamber drainage basins, (3)Sand oil Separator |
| Parkway Station 405 | 405 E 42th St | (2)DCI, (1)Seepage Bed, (1) Permeable Pavers, (2) Sand Windows |
| Paul's Custom Detail | 4654 Fenton St. | (1) Catch Basin, Permeable area |
| Perfect Plumbing Heating & Air | 109 W. 44th St | (4)Catch Basins, Trench drains |
| Pooch Pro's | 4601 Chinden | (4)Swales |
| Powderhaus Brewery | 9719 Chinden blvd | (2)Swales |
| PJD Holdings | 503 E. 47th Street | (3) Permeable Pavers w/seepage bed |
| Primary Health | 5601 Chinden Blvd | (1)1000 gallon DCI, Seepage Bed |
| Proletariat Winery | 106 E. 36th Street | (1)Trench Drain, (1)Swale, (2)Seepage Beds, (2)Sand & Grease Traps, (5) Drop Inlets |
| Race Shop | 116 E 44th Street | (3)Drainage Basin Horizontal Swales, (1)Catch basin with hydrodynamic separator that discharges to Thurman Mill Canal |
| Recycle Boise | 4725 N Glenwood St | (1) Catch Basin<br>(1) Permeable lot |
| Renaissance Building | 108 E 42nd Street | (1)Swale |

| | | |
|---|---|---|
| Restoration Rods | 8633 State St. | (1)Swale |
| River at Parkway Station | 4310 Adams St. Corner of 43rd and Adams St | (2) Drop Inlets, (3)Sand & Oil traps connected to infiltration beds, Parking garage & building downspouts connected to sand oil traps. |
| River Club Golf Course (2023 Pool Addition) | 6515 State Street | (3)Catch Basins, (1)Sand oil Separator, (1)Trench Drain, (1)Seepage Bed |
| River Eddy Pedestrian Bridge | 2900 Chinden Blvd | (1)Trench drain connected to seepage bed on Hotel property |
| Riverpointe II Apartments | 6265 Strawberry Glen | (9)Paver Beds, (3)Swales, (6)Sand Windows, (9) Bubbler discharge into Pavers, (1) Drop Inlet discharge to Forebay Swale |
| Riverside Hotel Bike Path & Trash Enclosure | 2900 W. Chinden Blvd | (1)Catch Basin Inlet, (2)Catch Basins 30" Solid Lid(4)Nydplast landscape Inline Drain that connects to existing Sand oil separator |
| Riverside Hotel Bike Path phase 2 | 2900 W. Chinden Blvd | (1)Catch Basin Inlet, (2)Catch Basins 30" Solid Lid(4)Nydplast landscape Inline Drain that connects to existing Sand oil separator |
| Riverside Hotel (East Parking Lot) | 2900 W. Chinden Blvd | (3)Catch Basins, (1)DCI, (1)Permeable Paver |
| Riverside Hotel (Front Entry) | 2900 W. Chinden Blvd | Permeable Pavers |
| Riverside Hotel (Sandbar Expansion) | 2900 W. Chinden Blvd | Permeable Pavers |
| Riverside Hotel (Weeding Venue) | 2900 W. Chinden Blvd | (2)Permeable Pavers, (1)seepage bed, (1)Catch Basin |
| Ryan's Repair and Diagnostics | 3980 W Chinden Blvd | Paved to Permeable area |
| ServePro | 5090 Sawyer Ave. | Swales |
| Silverdraft Industrial Complex | 113 W. 43rd Street | (1)permeable Pavers, (4)Catch basins that are tied into ACHD system on 43rd ACHD is responsible for catch basins |
| Sleepy Hollow Apartments | 9555-9557 W State St | (3)Swales, (2)permeable Pavers, (2)Catch basins with bubblers |
| Split Rail Winery | 3200 Chinden | (3)Swales, (2)Drop inlets connected to sand oil separator connected to seepage bed |

| | | |
|---|---|---|
| Starbucks | 5586 N. Maple Grove | (3)Catch Basins, (2)Sand Grease Traps, (2)Seepage Beds |
| State Street Townhomes | 8875 W. State Street | (1)All Roads are Permeable Pavers, (17)Pedestrian Permeable pavers as patios |
| Sword Motorsports | 214 W 39th St | (1) Catch Basin |
| Take 5 Oil | 6543 Glenwood St | (3)Catch basins connected to existing sand oil separator connected to seepage bed |
| Telaya Winery | 240 E. 32nd Street | (2)Swales |
| Tire Choice Auto Service Center | 6730Glenwood | (3)Catch Basins |
| Trader Bob's | 4833 Chinden | (1)Sand/oil separator |
| Trailwinds Apartments | 415 E. 42nd Street | Catch Basins, Swale |
| Treasure Valley Auto Care | 140 W. 35th St | (1) Catch Basin |
| Treasure Valley Collision | 8421 State Street | (1)Swale |
| Treasure Valley Line-X | 108 W. 37th St. | (5) Catch Basins |
| U-Haul | 8147 Chinden | (7)Catch Basins |
| United Parcel Service (UPS) Trailer Staging Expansion Area | 116 E 42nd Street | (2)Swales |
| Valley Auto E.R. | 4848 Fenton | Paved to Permeable area |
| Valvoline Instant Oil Change | 5601 Glenwood | (4)Swales |
| Vanilla Shell Warehouse | 115 E 33rd St | (1)Catch Basin, (1)Seepage Bed |
| Viewpoint Windows | 6715 State Street | (1)Infiltration bed, (3)stormwater inlets, (1)sand oil separator, (1) pump to lift stormwater to higher elevation |
| Violet's Crossing | 479 E Violets Cove Ln | Permeable Pavers |
| Walmart | 7319 State Street | (?#)Catch basins, (2)Vortechnic Treatment systems, (1)Detention Pond that can discharge to canal via cresting, |
| Warehouse row | 112 E 38th St | (2)1000gallon DCI, (5)Catch Basins, (1)Seepage Bed |
| Waterfront District Restaurant | 3588 N Prospect Way | (1)1000 Oil/Sand DCI, (2)Swales, (1)Catch Basin |
| Westvet Emergency | 5019 Sawyer | (3)DCIs, (6)Swales, (1)permeable Pavers |
| Westy's Garden Lanes | 5504 Alworth St. | (4)Catch Basins |
| Wildflour Bakery | 304 E. 42nd Street | (1)Infiltration Basin, (1)Swale |
| Wood Windows | 200 E. 50th St. | (2)Catch Basins |
| Wrench and Rachet Auto Care | 202 W. 41st St | (1) Stormwater Structure |
| Wizard Auto Specialties | 311 E 41st St | (2) Swales |

# Appendix D

Copies of Citations/ Corrections Letters.

No written citations or corrective letters were given in 2025.

# 2025 Attachment J - NPDES Phase 1 Stormwater Outfall Monitoring Plan

# NPDES Phase I Stormwater Outfall Monitoring Plan

Ada County Highway District
Boise, Idaho
8/11/2022

# Stormwater Outfall Monitoring Plan

Ada County Highway District Boise, Idaho
8/11/2022

# Table of Contents

List of Figures ..... iii
List of Tables ..... iii
List of Abbreviations ..... iv
Executive Summary ..... 1
1. Introduction ..... 1-1
1.1 Basis for Monitoring Plan ..... 1-1
1.2 SWOMP Objectives ..... 1-1
1.3 Task Organization ..... 1-2
2. Sampling Process Design ..... 2-4
2.1 Data Collection Overview ..... 2-4
2.2 Site Selection ..... 2-4
2.3 Site Descriptions ..... 2-5
2.3.1 Lucky ..... 2-6
2.3.2 Whitewater ..... 2-7
2.3.3 Main ..... 2-7
2.3.4 Americana ..... 2-7
3. Monitoring Equipment ..... 3-1
3.1 Monitoring Equipment Operation and Calibration ..... 3-1
3.1.1 Flowmeters ..... 3-1
3.1.2 Automatic Samplers ..... 3-1
3.1.3 Rain Gauges ..... 3-2
3.1.4 Handheld Field Parameter Instruments ..... 3-2
4. Sampling Procedures ..... 4-1
4.1 Analytical Sample Collection Frequency ..... 4-1
4.2 Stormwater Parameter Analysis ..... 4-1
4.3 Weather Forecast and Storm Selection ..... 4-2
4.4 Monitoring Station Set-up ..... 4-3
4.4.1 Flowmeter Programming ..... 4-3
4.5 Sample Collection ..... 4-4
4.5.1 Sampling Teams ..... 4-4
4.5.2 Grab Sample Collection ..... 4-4
4.5.3 Composite Sample Collection ..... 4-4
4.6 Sample Handling Procedures ..... 4-5
Special Handling Considerations ..... 4-5
*4.6.1 E. coli* ..... 4-5
4.6.2 Dissolved Metals ..... 4-5

4.7 Chain-of-Custody Procedures....4-6
4.8 Monitoring Station Shut Down....4-7
5. Quality Assurance/Quality Control....5-1
5.1 QC Sampling Schedule....5-1
5.2 Data Quality Objectives (DQO)....5-1
5.2.1 Data Quality Indicators (DQIs)....5-1
5.2.2 Storm Event Acceptance Criteria....5-4
6. Data Management and Reporting....6-1
6.1 Data Acquisition Requirements (Non-Direct Measurements)....6-1
6.2 Data Management System....6-1
6.3 Data Reporting....6-2
6.3.1 Event Reporting....6-2
6.3.2 Stormwater Outfall Monitoring Report....6-4
6.3.3 Evaluation and Assessment....6-4
7. References....1
Figures....1
Appendix A: Standard Operating Procedure and Procedure Guidance Documents....A
Appendix B: Communication and Field Forms....B
Appendix C: Full QA/QC Sampling Schedule....C

# List of Figures

Figure 1-1. Stormwater Outfall Monitoring Organization Chart....1-3
Figure 6-1: Database Levels Setup....6-2
Monitoring Station Overview Map....FIG-2
Drainage Area Maps and Monitoring Station Photos....FIG-3
Rain Gauge Site Photos....FIG-10

# List of Tables

Table 1-1. QAPP Element Document Reference....1-1
Table 2-1. Monitoring Station Information....2-5
Table 4-1. Analytical Methods for Stormwater Constituents in Wet Weather Samples....4-1
Table 4-2. Sample Handling Requirements....4-6
Table 5-1. Field QC Sample Collection....5-1
Table 5-2. Data Quality Indicator Targets....5-3

# List of Abbreviations

| | |
|---|---|
| ACHD | Ada County Highway District |
| ac | acres |
| AV | Area Velocity |
| BC | Brown and Caldwell |
| BOD5 | Biological Oxygen Demand – 5 day |
| CaCO3 | Calcium Carbonate |
| CFR | Code of Federal Regulations |
| COC | Chain of Custody |
| COD | Chemical Oxygen Demand |
| DO | Dissolved Oxygen |
| DQI | Data Quality Indicator |
| DQO | Data Quality Objective |
| EPA | Environmental Protection Agency |
| ft | feet |
| GI | Green Infrastructure |
| GSI | Green Stormwater Infrastructure |
| HDPE | High Density Polyethylene |
| IDEQ | Idaho Department of Environmental Quality |
| IPDES | Idaho Pollutant Discharge Elimination System |
| in | inches |
| LDPE | Low Density Polyethylene |
| L | liter |
| MDL | Method Detection Limit |
| mL | Milliliter |
| MS4 | Municipal Separate Storm Sewer System |
| NH3 | Ammonia |
| NO2 | Nitrite |
| NO3 | Nitrate |
| NPDES | National Pollutant Discharge Elimination System |
| NWS | National Weather Service |
| PMEP | Project Monitoring and Evaluation Plan |
| PRDL | Project Required Detection Limit |
| QA/QC | Quality Assurance/Quality Control |
| QAPP | Quality Assurance Program Plan |
| RPD | Relative Percent Difference |
| SWOMP | Stormwater Outfall Monitoring Plan |
| TDS | Total Dissolved Solids |
| TKN | Total Kjeldahl Nitrogen |
| TSS | Total Suspended Solids |

| | |
|---|---|
| WQL | Boise City Public Works Water Quality Laboratory |

# Executive Summary

The Environmental Protection Agency, Region 10 (EPA) issued the third cycle National Pollutant Discharge Elimination System (NPDES) Municipal Storm Separate Sewer System (MS4) Phase I Permit No. IDS-027561 (Permit) effective October 1, 2021, to Ada County Highway District (ACHD), Boise State University, City of Boise, City of Garden City, Drainage District #3, and the Idaho Transportation Department District #3, referred to as the "Permittees." Starting July 1, 2021, the Idaho Department of Environmental Quality (IDEQ) acquired Permit authority through the Idaho Pollutant Discharge Elimination System (IPDES) Program. The Permit authorizes stormwater discharges from MS4 outfalls to waters of the United States in accordance with the conditions and requirements of the Permit. Under this permit, the Permittees are required to update the existing Stormwater Outfall Monitoring Plan to be consistent with the stormwater monitoring and evaluation program objectives as described in Permit Part 6.2.

This Stormwater Outfall Monitoring Plan (SWOMP) has been developed in line with the Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring (QAPP) (ACHD, 2021). The SWOMP describes the overall approach to stormwater outfall monitoring and provides site and drainage area descriptive details for each monitoring station. The SWOMP also provides guidance for data collection efforts, including descriptions of meteorological and hydrological data collection procedures and use, as well as analytical data collection and sample handling procedures.

Certain Quality Assurance/Quality Control (QA/QC) procedures that have been identified using United States Environmental Protection Agency (EPA) guidance for QAPPs are also included in this plan. The QA/QC procedures are designed to ensure data collected meet specific data quality objectives developed specifically for Permit-required monitoring activities. This plan documents QC sampling procedures, storm event acceptance criteria, and data management details specific to the SWOMP.

Section 1

# Introduction

## 1.1 Basis for Monitoring Plan

The Permit requires that the SWOMP be consistent with the stormwater monitoring and evaluation program objectives as described in Permit Part 6.2 and are the following:

- Broadly estimate reductions in annual pollutant loads of sediment, bacteria, phosphorus and temperature discharged to impaired receiving waters from the MS4s, occurring as a result of the implementation of SWMP activities;
- Characterize the quality of stormwater discharges from the MS4; and
- Identify and prioritize those portions of the MS4 where additional controls can be accomplished to reduce the volume of stormwater discharged and/or reduce pollutants in MS4 discharges to waters of the U.S.

## 1.2 SWOMP Objectives

The SWOMP is designed to address the minimum permit requirements for wet weather stormwater outfall monitoring as listed in Permit Part 6.2.1. The SWOMP serves as guidance for data acquisition, management, and reporting efforts undertaken by the Permittees.

This document outlines the SWOMP approach and includes specific QAPP elements recommended by the EPA. EPA-recommended QAPP elements are addressed as either program elements or monitoring plan elements.

Monitoring plan elements are described in full in this document, while program elements are addressed in the QAPP. Monitoring plan elements are those components that contain details specific to each individual monitoring plan. Program elements consist of the standardized monitoring components that all individual monitoring plans developed under the Permit reference. A list of program and monitoring plan elements is included in Table 1-1.

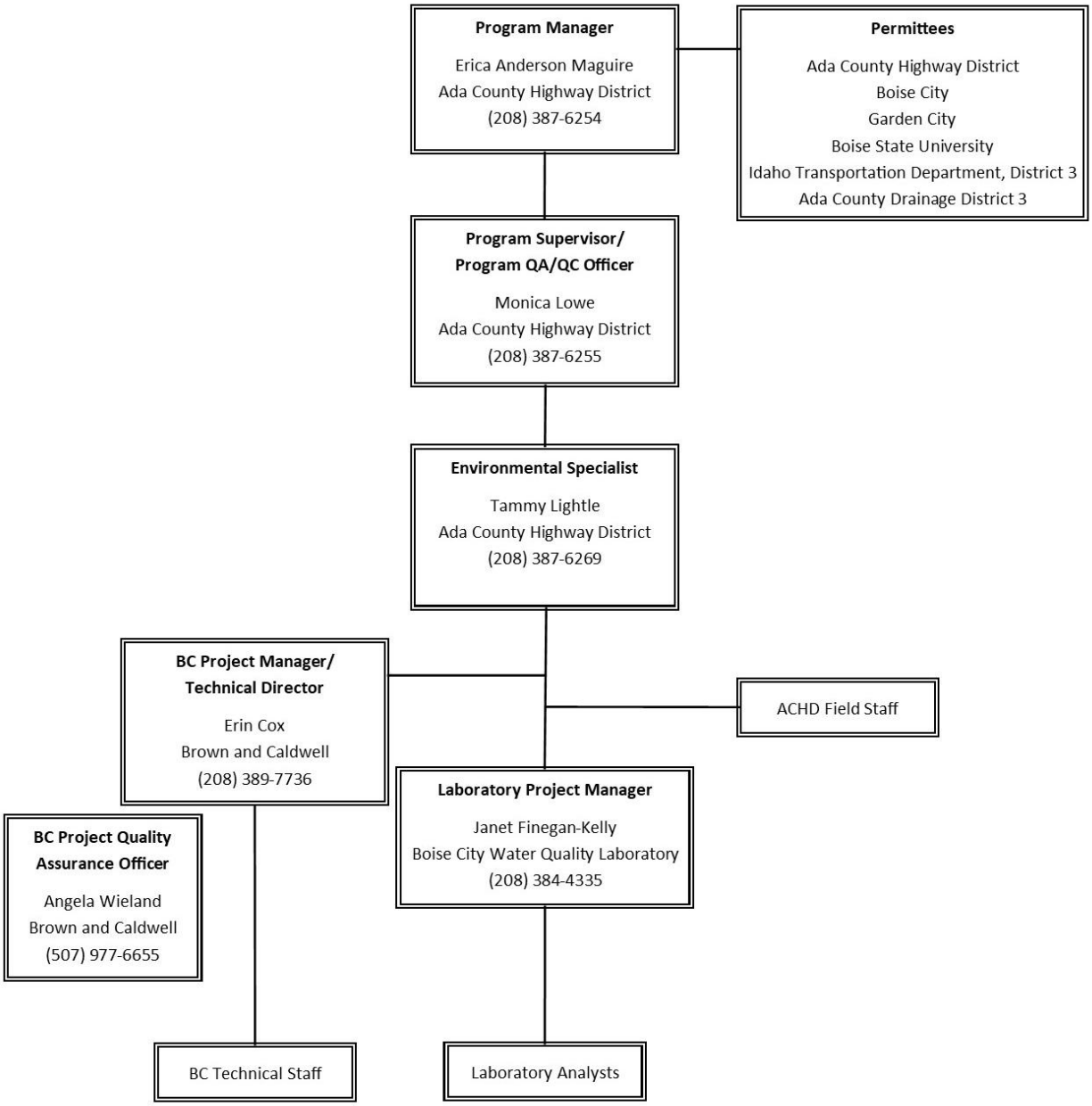
**Table 1-1. QAPP Element Document Reference**

| EPA Recommended QAPP Elements | QAPP Element | SWOMP Element; Section |
|---|---|---|
| **Group A: Project Management** | | |
| A1 – Title and Approval Sheet | X | |
| A2 – Table of Contents | X | |
| A3 – Distribution List | X | |
| A4a – Project Organization | X | |
| A4b – Task Organization | | X; 1.3 |
| A5 – Problem Definition/Background | X | |
| A6 – Project/Task Description | | X; 1.2 |
| A7a – Quality Objectives and Criteria for Measurement Data | X | |

| Table 1-1. QAPP Element Document Reference | | |
|---|---|---|
| EPA Recommended QAPP Elements | QAPP Element | SWOMP Element; Section |
| A7b – Method Dependent Criteria for Measurement Data | | X; 5.2 |
| A8 – Special Training Needs/Certification | X | |
| A9 – Documents and Records | X | |
| **Group B: Data Generation and Acquisition** | | |
| B1 – Sampling Process and Design | | X; 2 |
| B2 – Sampling Methods | | X; 3, 4 |
| B3 – Sample Handling and Custody | | X; 4.6, 4.7 |
| B4 – Analytical Methods | | X; 4.2 |
| B5a – Quality Control | X | |
| B5b – QA/QC Sampling Schedule | | X; 5.1 |
| B6 – Instrument/Equipment Testing, Inspection, and Maintenance | | X; 3 |
| B7 – Instrument/Equipment Calibration and Frequency | | X; 3 |
| B8 – Inspection/Acceptance of Supplies and Consumables | X | |
| B9 – Non-direct Measurements | X | |
| B10 – Data Management | X | |
| **Group C: Assessment and Oversight** | | |
| C1 – Assessments and Response Actions | X | |
| C2 – Reports to Management | X | |
| **Group D: Data Validation and Usability** | | |
| D1 – Data Review, Verification, and Validation | X | |
| D2 – Verification and Validation Methods | X | |
| D3 – Reconciliation and User Requirements | X | |

## 1.3 Task Organization

ACHD is the lead agency for stormwater outfall monitoring under the Permit, and a consultant team assists with the monitoring program. Key roles and job functions are described in the QAPP. The stormwater outfall monitoring program organization chart is presented in Figure 1-1.




*Staff list subject to change. If changes occur, contact current staff member in corresponding role.

**Figure 1-1. Stormwater Outfall Monitoring Organization Chart**

Section 2

# Sampling Process Design

The sampling process design consists of the collection of data at monitoring stations set up on representative drainages throughout the MS4 to present a picture of the impact of pollutant prevention efforts and the potential for pollutant loading reduction in the permit area. Data to be collected includes a combination of site-specific continuous rainfall data, continuous flow data from background sources, and stormwater discharges and water quality data. Section 2.1 provides an overview of the methods used to obtain this data and more detail is provided in sections 3 and 4. Drainage area characteristics integral to the sampling process design include land use, impervious ground cover percentage, canopy cover, vegetated area, stormwater controls, and stormwater infrastructure.

The process the permittees used for selecting monitoring sites is outlined below in Section 2.2. Detailed site description information is included in Section 2.3.

## 2.1 Data Collection Overview

Data collection at each monitoring station will be facilitated by a combination of automated sampling and measurement equipment and manual sampling, observation, and characterization activities. Automated sampling equipment includes a flowmeter with an area velocity (AV) sensor installed in the storm drain pipe. The flowmeter will record stormwater discharge, instantaneous and cumulative flow volumes, as well as background flows as applicable. Flow will be monitored continuously at sites that have consistent background flows.

The flowmeter is connected via a data cable to the automatic sampler. The automatic sampler and flowmeter are programmed to collect site specific, flow-weighted composite samples. Throughout a sampling event, the flowmeter triggers the sampler to initiate pumping at a pre-programmed volume interval to collect a representative composite sample of the stormwater discharge.

Each monitoring station is associated with a rain gauge to collect precipitation data to use in conjunction with sampling and flow data for analysis and quality assurance. Additionally, forecasts, weather, and hourly precipitation data for the weather station located at the Boise Airport are available from the National Weather Service (NWS) website.

Water quality data collection will be accomplished through a variety of sampling and analysis methods. Discrete grab samples will be collected for laboratory analysis and analysis of field parameters. Composite samples will be split at the laboratory for analysis. Discharges from three separate storm events will be sampled during each water year.

Monitoring equipment operation and maintenance descriptions are included in Section 3. Specific descriptions of sampling procedures are described in Section 4.

## 2.2 Site Selection

The Permit requirement for wet weather stormwater outfall monitoring is to continue the monitoring program that was implemented under the 2012 NPDES Phase I Permit. As such, four monitoring stations (Lucky,

Whitewater, Main, Americana) will continue to be the sampling locations for this SWOMP. For more information on how these stations were selected, refer to the *Storm Water Outfall Monitoring Plan* (ACHD, 2014a).

A vicinity map (Figure 1) showing each monitored drainage area within the Phase I Permit area is included in the Figures section at the end of the document. Site maps showing land uses and associated impervious area percentages by land use are also included in the Figures section.

## 2.3 Site Descriptions

Table 2-1 provides a summary overview of the monitoring station locations and associated subwatersheds. A summary of each monitoring site and a description of the monitoring equipment is included in the sections to follow. Subwatershed area, monitoring station maps, and pictures are included in the Figures section at the end of the document.

**Table 2-1. Monitoring Station Information**

| | Lucky (Site ID: 3) | Whitewater (Site ID: 11) | Main (Site ID: 12) | Americana (Site ID: 14) |
|---|---|---|---|---|
| Outfall ID | 4n2e19_021 | 3n2e04_016 | 3n2e04_010 | 3n2e09_024 |
| Location | 5590 West Lucky Drive (northwest Boise) | East side of Whitewater Park Boulevard (west of downtown Boise) | 303 West Main Street (west of downtown Boise) | 1661 Shoreline Avenue (downtown Boise) |
| Station GPS Coordinates | 43.6634612,-116.2583125 | 43.631432, -116.230644 | 43.621493, -116.228274 | 43.616150, -116.221257 |
| Subwatershed Area | 105 ac. | 498 ac. | 79 ac. | 875 ac. |
| Percent Impervious Groundcover[1,2] | 40 | 43 | 55 | 39 |
| Land Uses (percentage)[1,3] | Right of Way (22%)<br>Residential Med (78%) | Right of Way (36%)<br>Commercial (4%)<br>Residential Med (50%)<br>Residential High (7%)<br>Public and Schools (3%) | Right of Way (43%)<br>Commercial (37%)<br>Residential Med (14%)<br>Residential High (5%)<br>Public (1%) | Right of Way (30%)<br>Commercial (13%)<br>Residential (Hi/Med/Low) (39%)<br>Parks and Open Space (14%)<br>Public and Schools (4%) |
| Receiving Water | Eagle Drain | Crane Creek | Boise River | Boise River |
| Assessment Unit | N/A | ID17050114SW012-02 | ID17050114SW011a_06 | ID17050114SW011a_06 |
| Distance from Station to Outfall | 350 ft | 140 ft | 500 ft | 108 ft |
| Rain Gauge Location | Cynthia Mann | Whitewater (at monitoring station) | Front | Front and East |
| Rain Gauge GPS Coordinates | 43.664185, -116.256289 | 43.631432, -116.230644 | 43.619429, -116.216409 | 43.619429, -116.216409<br>43.626046, -116.187601 |
| Rain Gauge Distance from Station | 620 ft | 0 ft | 3,200 ft | 1,730 ft and 9,600 ft |

| Table 2-1. Monitoring Station Information | | | | |
|---|---|---|---|---|
| | Lucky (Site ID: 3) | Whitewater (Site ID: 11) | Main (Site ID: 12) | Americana (Site ID: 14) |
| Pipe Construction | 30 in, circular, corrugated metal pipe | 38 in, ellipsoid, corrugated metal pipe | 30 in, circular, concrete pipe | 48 in, circular, concrete pipe |
| Power Source | 40 Ahr battery | Commercial power | 40 Ahr battery | 40 Ahr battery |
| Parking | Park next to sidewalk at 5590 West Lucky Drive | Park in pullout south of enclosure | Park in lot southwest of enclosure | Park in space northwest of enclosure in parking lot |
| Equipment Location | Below ground in manhole in yard | In enclosure | In enclosure | In enclosure |
| Sampling Considerations | Swing sampler needed for grabs through manhole | Swing sampler needed for grabs through manhole | Swing sampler needed for grabs through manhole | Swing sampler needed for grabs through manhole |
| Data Considerations | Consistent standing water in manhole and pipe | Background flow usually present | Surcharges when Boise River stage is high | Background flow present year-round, Surcharges when Boise River stage is high |
| Watershed BMP Summary | Catch basins, sand and grease traps | Catch basins, sand and grease traps, ditches | Catch basins | Catch basins, sand and grease traps, seepage beds, bioretention planters, permeable pavers, stormwater tree cells |

[1]Source: ACHD, 2014b.

[2]Impervious cover includes roads and streets, rooftops, and parking lots.

[3]Land uses as delineated are defined as follows (ACHD, 2014c):

- Right of Way – Land reserved for transportation purposes managed by the Ada County Highway District. Not part of a recorded parcel by the Ada County Assessors office.
- High Density Residential – 8 residential units/acre or above. Multifamily units such as duplex, condos, apartments.
- Medium Density Residential – 3 -7 residential units/acre. Typical single family residential on 0.15 to 0.49 acre lots.
- Low Density Residential – Less than 3 residential units/acre. Single family residential on lots 0.50 acres and larger.
- Commercial – Includes commercial retail and office space.
- Industrial – Includes manufacturing, warehousing, distribution other non-retail uses.
- Parks and Open Space – Includes public parks and open/undeveloped spaces.
- Public and Schools – Includes public buildings/facilities and schools including associated grounds.

### 2.3.1 Lucky

The Lucky monitoring station is located at 5590 West Lucky Drive in northwest Boise (Figure 2). Access to the sampling location is through a manhole located in the front yard near the sidewalk on West Lucky Drive (Figure 3). The manhole is located within a drainage and utility easement and is an access point for the stormwater conveyance system that carries stormwater from the Jordan's Landing Subdivision into Eagle Drain. The Lucky site is influenced by infiltration into the storm drain system from groundwater and the Boise City Canal in the nearby vicinity but does not have consistent background flow. Historically, there are around 2 inches of standing water in the pipe at the AV sensor. Surcharge conditions have not been a factor at the monitoring station.

The Lucky monitoring station is the only site that was previously monitored under both the 2000 NPDES Phase I Permit and the 2012 NPDES Phase I Permit.

#### Lucky Flow Measurement and Configuration

The AV sensor and sampler intake tubing are installed just downstream (northwest) of the manhole in the stormwater conveyance pipe. Grab samples are collected at the inlet to the stormwater conveyance pipe on the downstream side of the vault just before the sampler intake tubing. The flowmeter and sampler are installed in the manhole vault and sit on a platform suspended by cables that are secured to the inside collar of the vault.

### 2.3.2 Whitewater

The Whitewater monitoring station is located on the east side of Whitewater Park Boulevard (Figure 4). The sampling location is accessed through a manhole located in the sidewalk (Figure 5). Background flows are frequently present at the monitoring station and may consist of infiltration from Crane Creek, Boise City Canal, groundwater, and possibly other irrigation sources. The Whitewater subwatershed discharges into Crane Creek which begins in the foothills and flows to the northwest and intersects with the Farmer's Union Canal about 2,100 feet downstream from the monitoring station. During winter a temporary dike, which directs flows into a side channel of the Boise River, is installed at the intersection of the creek and the canal. Throughout irrigation season (typically early April through late September) the dike is removed and water flows to both the Farmers Union Canal and the side channel of the Boise River.

Upstream of the monitoring station, irrigation water from the Boise City Canal can overflow into the storm drain system via headgates that can be opened when irrigation flows are high. The Boise City Canal was developed in 1866 and is managed and operated by the Boise City Canal Company.

#### Whitewater Flow Measurement and Configuration

The flowmeter and sampler are installed in a locked enclosure that is mounted to a concrete pad. The sampler intake tubing and AV sensor are connected to the equipment in the enclosure via a conduit that extends through the concrete pad to the inside top of the pipe. Grab samples are collected in the manhole.

This station has commercial power, and the flowmeter is continuously measuring level and velocity and calculating flow. To calculate flow from velocity and level measurements in an ellipsoid pipe, the pipe dimensions (length and width) are programmed into the flowmeter. The flowmeter also records measurements from the rain gauge installed adjacent to the enclosure.

### 2.3.3 Main

The Main monitoring station is located at 303 West Main Street, west of the intersection of Main Street and Whitewater Park Boulevard (Figure 6). The sampling location is accessed through a manhole located in the sidewalk on the south side of Main Street (Figure 7). Background flows have not been recorded at this monitoring station to date, however, the pipe does surcharge during seasonal high river flows.

#### Main Flow Measurement and Configuration

The sampler intake tubing and AV sensor are installed just upstream (northeast) of the manhole vault. The flowmeter and sampler are installed in an enclosure next to the manhole. Grab samples are collected in the storm drain manhole located in the sidewalk.

### 2.3.4 Americana

The Americana monitoring station is located at the landscaped area on the west side of Americana Boulevard near the southeast corner of the parking lot for the office building located at 1661 Shoreline Avenue (Figure 8). The monitoring station is located on land owned by Riverwalk Partners, LLC with a dedicated storm drain easement. A license agreement was executed prior to the construction of the monitoring station between ACHD and Riverwalk Partners, LLC. The sampling location is accessed through a manhole located just west of the sidewalk that runs along the west side of Americana Boulevard (Figure 9).

#### Americana Flow Measurement and Configuration

Background flow is typically present at the Americana monitoring station. Background flow sources include groundwater infiltration, irrigation runoff, overflow from Hulls Gulch, return water from geothermal heating, intermittent discharges from the Boise Ice Company, and other sources to be investigated as monitoring progresses. The flowmeter's AV sensor and sampler intake tubing are installed just upstream (north) of the manhole in the stormwater conveyance pipe. Grab samples are also collected from the manhole.

Section 3

# Monitoring Equipment

## 3.1 Monitoring Equipment Operation and Calibration

### 3.1.1 Flowmeters

Each monitoring station is equipped with a flowmeter. Depending on site configurations, an ISCO Signature flowmeter or a Hach AV9000 flow module is used. The flowmeters are used to record temperature, level, velocity, and flow. The flowmeter utilizes an AV sensor that is mounted to the invert of the pipe by means of a mounting band. The AV sensor includes both a depth sensor and an acoustic Doppler velocity sensor. The flowmeter calculates flow using the measured depth and velocity along with pre-programmed pipe geometry. During storm events the flowmeters are programmed to send a signal to an automatic sampler after a specified volume of runoff has passed the AV sensor.

#### 3.1.1.1 Calibration and Maintenance

Routine maintenance of flowmeters, including level calibration, will be performed semi-annually according to the procedures listed in Appendix A. More frequent maintenance or calibration will be performed as warranted by equipment performance.

Calibration of the level requires only offsetting the initial depth of water. Typically, no field calibration of the velocity sensor is required. Additional checks on the accuracy of the velocity meter can, however, be conducted using a manual current meter to measure velocity. Depth can be checked by simple measurement and comparison to the recorded value. Readings showing deviations can be corrected using the flowmeter interface while in the field.

### 3.1.2 Automatic Samplers

Composite sampling is carried out at each of the monitoring stations using either ISCO 6712 samplers or Hach AS950 samplers. Sample aliquots are pumped from the stormwater conveyance to a 15-litercarboy by a peristaltic pump. The discharge tubing of the pump is routed into the sample container which is secured in the insulated base of the sampler with ice to maintain target sample temperature.

For each sampling event, the automatic sampler is programmed to collect samples based upon flow-paced signals received from the flowmeter via a control cable. The sampler collects one sample for each signal from the flowmeter. Sample aliquot volumes are programmed and calibrated to produce a flow-weighted composite sample of the storm event discharge consisting of a targeted 24 subsamples. A record of the sampler's operations (e.g., execution data and sample times) is stored on the hard drive of both the sampler and the flowmeter and may be downloaded to a portable computer at any time.

#### 3.1.2.1 Calibration and Maintenance

Routine maintenance of the automatic samplers, including cleaning and calibration, will be performed semi-annually, or more frequently as warranted by equipment performance, according to the procedures listed in Appendix A.

The sampler is calibrated by comparing the collected sample volume (measured using a graduated cylinder) with the required volume that was programmed into the sampler program. The sampler microprocessor will adjust the pump run time to either increase or decrease the sample volume. This process is repeated until the sampler delivers a volume that is within ±10 percent of the requested sample volume.

### 3.1.3 Rain Gauges

ACHD currently maintains four rain gauge sites representative of the monitored drainage areas. The rain gauges are deployed to collect continuous precipitation data throughout the water year. The program utilizes tipping-bucket style rain gauges that measure rainfall depths in 0.01-inch increments. Each tipping-bucket is connected to either Hobo event data loggers or an ISCO Signature flowmeter via a cable. At sites equipped with Hobo data loggers, a primary and a back-up data logger are used to record tip measurements.

A vicinity map (Figure 1) showing the location of each rain gauge is included in the Figures section at the end of the document. Figure 10 includes pictures of the rain gauges, which are located in the following areas:

- **Cynthia Mann Rain Gauge:** Cynthia Mann Elementary School in northwest Boise.
- **East Rain Gauge:** At the intersection of West Eastway Drive and Rainier Lane in a Boise foothills neighborhood.
- **Whitewater Rain Gauge:** At the Whitewater monitoring station on Whitewater Boulevard.
- **Front Rain Gauge:** At an ACHD maintenance storage area at the intersection of South 17th Street and Front Street.

The data collected on the rain gauge data loggers will be downloaded to a portable laptop computer on a bi-monthly basis. Additionally, sampling personnel will download rain gauge data during station shutdown following monitored storm events. The data will be compared to the NWS rainfall data to identify geographic variations, revise estimates of runoff coefficients, and analyze and evaluate the stormwater quality data.

In addition to using rainfall totals as acceptance criteria for storm event qualification, other program data derived from rainfall records include storm event antecedent dry periods, total rainfall distribution during sampling events, and rainfall intensity during monitored storm events.

#### 3.1.3.1 Calibration and Maintenance

The rain gauges and data loggers will be inspected and maintained biannually. Troubleshooting and any non-routine maintenance will be performed as necessary. Calibration is not typically required for the tipping bucket rain gauges. If needed, calibration procedures are outlined in the rain gauge equipment manual. Inspection, maintenance, and downloading procedures are listed in Appendix A.

### 3.1.4 Handheld Field Parameter Instruments

During grab sample collection, specific parameters will be measured directly in the field using a variety of handheld instruments to collect readings including pH, conductivity, dissolved oxygen, and temperature. Each sampling team will have a dedicated set of instruments and will record measurements as soon after sample collection as feasible. Field parameter instruments will be rinsed with distilled water between measurements. After the sampling event has ended, these instruments will be allowed to air-dry and will be kept indoors between sampling events.

Handheld Field Parameter Instruments include the following:

- In-Situ Multiparameter meter
- Horiba D-21 pH/temperature meter and Horiba D-51 pH/temperature meter
- Oakton 300 pH/DO/temperature meter
- YSI-85 DO/salinity/conductivity/temperature meter

Safety Monitoring Instruments:

- Hazardous vapor monitors including BW GasAlert Max XT II and Sperian PhD6

#### 3.1.4.1 Calibration and Maintenance

Maintenance will be conducted per manufacturers' recommendations and the procedures listed in Appendix A, or more frequently as warranted by equipment performance. Instruments will be inspected and calibrated prior to each monitoring event. All calibration records will be kept in the ACHD Stormwater Lab for reference.

Section 4

# Sampling Procedures

## 4.1 Analytical Sample Collection Frequency

The stormwater monitoring, including the collection of stormwater discharge samples for laboratory analysis, is conducted at a minimum frequency of three wet weather events per year at each of the four sites. Attempts will be made to separate sampling events by a minimum of 30 days to represent seasonal variability.

## 4.2 Stormwater Parameter Analysis

The analytical methods planned for use in stormwater outfall monitoring are presented in Table 4-1 below. The NPDES Permit requires that sample collection, preservation, and analysis be conducted according to sufficiently sensitive methods/test procedures approved under 40 Code of Federal Regulations (CFR) Part 136, 40 CFR subchapters N or O, or an alternative method that has been approved by EPA. As such, the methods identified below are the selected and preferred options. However, sample, laboratory, or instrument conditions may require the substitution of an alternate Part 136 method. Field parameter measurements provide pH, temperature, conductivity, and dissolved oxygen (DO) data. Additional water quality data is provided by laboratory analyses of both grab and composite samples. Table 4-1 identifies the components to be collected by grab sampling and as flow-weighted composite samples, along with the analytical methods to be used.

**Table 4-1. Analytical Methods for Stormwater Constituents in Wet Weather Samples**

| Constituent | Analytical Method | Sample Collection Type |
|---|---|---|
| Ammonia ($NH_3$) | SM 4500-NH3 D | C |
| 5-Day Biological Oxygen Demand (BOD5) | SM 5210 B | C |
| Chemical Oxygen Demand (COD) | HH 8000 | C |
| Nitrite plus Nitrate ($NO_2$+$NO_3$) | EPA 353.2 | C |
| Total Kjeldahl Nitrogen (TKN) | EPA 351.2, 10-107-06-2-M | C |
| Total Dissolved Solids (TDS) | SM 2540 C | C |
| Total Suspended Solids (TSS) | SM 2540 D | C |
| Turbidity | EPA 180.1 | C |
| Dissolved Orthophosphate | EPA 365.1 | C |
| Total Phosphorus | EPA 200.7 | C |
| *E. coli* | IDEXX Colilert | G |
| Mercury – Total | EPA 245.2 | C |
| Arsenic – Total | EPA 200.8 | C |
| Cadmium – Total and Dissolved | EPA 200.8 | C |
| Calcium – Total | EPA 200.7 | C |
| Lead – Total and Dissolved | EPA 200.8 | C |
| Magnesium – Total | EPA 200.7 | C |

| Table 4-1. Analytical Methods for Stormwater Constituents in Wet Weather Samples | | |
|---|---|---|
| Constituent | Analytical Method | Sample Collection Type |
| Hardness (as Calcium Carbonate [$CaCO_3$]) | EPA 200.7 | C |
| Copper – Dissolved | EPA 200.8 | C |
| Zinc – Dissolved | EPA 200.8 | C |
| Conductivity | EPA 120.1 | G,f |
| DO | In-Situ Method 1002-8-2009 | G,f |
| Temperature | EPA 170.1 | G,f* |
| pH | EPA 150.2 | G,f |
| Flow/Discharge Volume | Non Specific | f |

*C – Constituent analysis will be conducted using a composite sample.*

*G – Constituent analysis will be conducted using a grab sample.*

*f – Analysis will be conducted in the field.*

*f* - Temperature is recorded during field parameter measurement and is recorded continuously by the AV sensor.*

## 4.3 Weather Forecast and Storm Selection

The Environmental Specialist (or designee) will obtain up-to-date information on a storm's anticipated physical characteristics from the NWS. Information obtained for each forecast will include the probability of precipitation, the expected amount of precipitation, and the expected arrival time of the storm. Weather forecasts and information will ordinarily be obtained via the Internet and supplemented as needed by telephone conversations with the NWS meteorologist on duty. The Environmental Specialist will review weather forecasts daily and compare them with the established storm selection criteria to determine the likelihood of initiating stormwater sampling.

The EPA's definition of a representative storm event (EPA, 1983) states that the storm precipitation total must be greater than 0.10 inch and that the storm be preceded by a minimum of 72 hours from the previously measurable (greater than 0.10 inch) event.

With the Permit requirements and EPA guidance considered, ACHD will use the following criteria to assist in decision making for selecting forecasted storms to target under typical conditions:

- 70 percent or greater probability of precipitation forecasted
- Quantitative precipitation forecast predicted precipitation of greater than 0.10 inch in a 12-hour period
- Event separated by a minimum of 72 hours of dry weather from the previous measurable storm event (rainfall greater than 0.10 inch)
- At least 30-day separation from the previous sampling event

Criteria for snow conditions include the following:

- Forecasted precipitation in the form of snowfall will be evaluated in the context of the greater weather forecast to determine the likelihood of runoff occurring at the outfall.
- Though snowmelt is considered stormwater runoff, sampling events will not be initiated for collection of discharge from snowmelt alone when criteria for a representative storm are not forecasted to be met.

These criteria represent the general approach to storm event targeting used for this program. Ultimately, the Environmental Specialist will use these criteria in conjunction with additional forecast information, sampling program and staffing requirements, and other factors to make the decision to target a particular storm.

The Environmental Specialist will communicate the sampling status to the consultant Field Coordinator daily by means of the Sampling Event Communication Form (included in Appendix B). The Sampling Event Communication Form will also be sent to laboratory project personnel and ACHD field sampling staff.

If storm selection criteria appear to be met, the Environmental Specialist will confer with the consultant Field Coordinator. If both parties agree, the consultant Field Coordinator will initiate storm event preparation by advising the sampling team of the upcoming sampling event. At this time, all necessary sample containers will be prepared and organized by site.

## 4.4 Monitoring Station Set-up

Prior to a sampling event, the Environmental Specialist or the consultant Field Coordinator will be responsible for readying the flowmeters and automatic samplers at the monitoring stations following the procedures listed on the Setup/Shutdown Form (Appendix B). Whenever possible, setup will be conducted by two trained staff. The Environmental Specialist (or designee) will be responsible for calibrating the handheld field parameter equipment, ensuring that adequate sampling supplies are available, and notifying the laboratory of the possible sampling event

Monitoring station set-up activities include the following:

- flushing the polyethylene sampler intake line and silicone discharge tubing with a dilute hydrochloric acid solution
- checking the condition of sampler harness and platform (if applicable), and sampler humidity indicator
- inspecting electrical and tubing connections for tightness
- installing recharged batteries
- freeing sampler tubing of twists, pinches, or cracks and replacing if needed
- loading bottles and ice into automatic samplers
- programming the samplers and flowmeters
- initiating the sampling program
- recording set-up information on field data sheets

### 4.4.1 Flowmeter Programming

#### Sampler Enable Condition

The flowmeter will be programmed to enable the sampler based on the water level in the pipe. The level condition will be programmed after a review of the previous 72 hours of level readings. Once runoff begins and water level increases, the sampler will enable and total flow will be computed toward the trigger volume, described below. Using the sampler enable condition allows for the sampler program to be initiated without the flowmeter triggering sample collection until storm runoff begins.

#### Runoff Coefficients and Trigger Volumes

To collect a flow-weighted composite sample throughout a storm, estimates will be calculated for the runoff volume expected at each station. The expected runoff volume will be divided by the planned number of sample aliquots, and the resulting value is used as the trigger volume for programming the flowmeter. The trigger volume is the amount of flow that will be measured before the automatic sampler is triggered to collect a subsample. Therefore, the number of samples collected over the course of a storm is a result of the runoff volume expected for the total storm as forecasted at the time of station set-up.

Calculating the total estimated runoff is a function of the weighted rainfall amount expected and the site-specific runoff coefficient. Precipitation amounts are weighted by multiplying the predicted rainfall amount by the probability of precipitation as forecasted by the NWS. The site-specific runoff coefficients are derived from the percentage of impervious ground cover in the subwatershed and empirical values from observed storm data.

Historical data suggests that multiple variables factor into the actual volume of runoff measured at each monitoring station. These variables include the size, duration, and intensity of a storm, along with

irregularities within the drainage area including soil moisture, temperature, snow cover, and irrigation influences. Recorded runoff volumes from each station will be used to continually refine runoff coefficients over the course of the program.

## 4.5 Sample Collection

### 4.5.1 Sampling Teams

Sampling team assignments will be decided once the decision is made to target a storm for a sampling event. At least two teams will be formed, each consisting of two persons, a sample team leader and a sample technician. One sample team leader will serve as the site safety officer during sampling events. Each team will be responsible for collecting samples at their assigned stations.

When storm event runoff begins, the consultant Field Coordinator will confer with the Environmental Specialist and mobilize sampling teams. All sampling personnel will meet at the ACHD Stormwater Lab for a briefing on field conditions, QA/QC samples to be targeted, and safety reminders and concerns. Sampling teams will be responsible for the following:

- Collecting field parameter measurements
- Collecting laboratory analytical grab samples
- Verifying operation of the automated sampling equipment
- Collecting sample duplicates and/or preparing field blanks, as required
- Returning grab sampling equipment to ACHD
- Arranging transportation of samples for submittal to Boise City Public Works Water Quality Laboratory (WQL)

### 4.5.2 Grab Sample Collection

Grab sample collection at each monitoring station will be accomplished by the sample team leader. The sample team leader will fill grab sample bottles for each analysis from a point near the center of the flow at each monitoring station in accordance with the applicable procedures listed in Appendix A. Immediately following sample collection, the sample technician will record the collection date, time, and sample identification on the sample containers and on a Grab Sample Data Form (Appendix B). Additional sampling information recorded on the Grab Sample Data Form includes field parameter measurements and the corresponding meter used, status of the automated sampler, and other comments and observations.

Field parameters including temperature, pH, conductivity, and DO will be measured in the field using handheld instruments to avoid changes that may occur between the time when the sample is collected and the time of the analysis. Measurements from these field tests will be recorded on the Grab Sample Data Form included in Appendix B.

### 4.5.3 Composite Sample Collection

Collecting flow-weighted samples throughout a storm event is facilitated using automated sampling equipment. Each monitoring station is equipped with an automatic sampler. During station setup, samplers are programmed for a site- and event-specific trigger volume. At each monitoring station, the automatic sampler is linked to the flowmeter via a data cable. When the flowmeter records the trigger volume amount, the integrated peristaltic pump on the automatic sampler engages and draws a sample through the tubing installed in the invert of the storm drain pipe. The sample aliquot is pumped into the composite sample bottle secured in the base of the automatic sampler.

The sampler program will end automatically after the last programmed subsample has been collected (typical target of 24 subsamples). Immediately following collection of the sample container, the sample team

will record the collection date, time, and sample identification on the sample bottle and the Composite Sample Collection Form (Appendix B).

Variability between expected runoff amounts and measured runoff amounts are common. To increase the probability of collecting a representative sample, a conservative approach to programming the sampler is used. The minimum volume required by WQL to run the analyses identified in Table 4.1 is 8 liters. In order to collect a representative composite sample, the sampler is programmed to collect 24 aliquots at 620 mL per aliquot. This approach will provide 13 subsamples to achieve the minimum volume, with a conservative estimate of forecasted rainfall. This will also provide additional capacity to collect up to 11 more aliquots in the event the intensity and duration of the storm is more than expected.

## 4.6 Sample Handling Procedures

The required types of containers and holding times for the stormwater outfall monitoring component are dependent upon the components to be analyzed. Table 4-2 includes container types and holding times for each parameter group.

Preservation techniques in the field are limited to cooling samples to a target sample temperature of less than 6°C, but above freezing. Five to ten pounds of food-grade ice will be placed in the coolers of the automatic samplers during station setup. Sufficient ice will also be placed in coolers used for grab and composite sample transport to maintain the samples at a maximum temperature of 6°C. Composite samples will be collected for the majority of analytical parameters in stormwater samples. Composite samples will be collected in a 15-liter Nalgene LDPE carboy.

No chemical preservation measures are required in the sample collection process. WQL will add chemical preservatives after the composite samples are split as necessary for analysis, i.e. metals analysis. In the 15-liter carboy, composite samples have a holding time of 48 hours. Analysis of composite samples will include the parameters listed in Table 4-2.

Parameters to be measured in the field include DO, conductivity, pH, and temperature. Parameters will be measured on-site using portable handheld meters immediately following sample collection. Field parameter samples will be collected and measured in a 1-liter (L) glass jar.

### Special Handling Considerations

#### *4.6.1 E. coli*

Due to the variable nature of storm event timing, *E. coli* grab samples are sometimes analyzed outside of sample holding times required by the standard method (eight hours). WQL has committed to providing *E. coli* analysis within the holding time for samples submitted during normal business hours (Monday–Friday), and within 12–16 hours if samples are submitted after hours. *E. coli* samples analyzed within the 8–16 hour timeframe will be qualified as estimated in the context of the program-established data quality objectives discussed in Section 5.2. If analysis is not initiated within 16 hours of collection, results will be rejected.

### 4.6.2 Dissolved Metals

Current regulations under the EPA Method Rule Update issued on May 18, 2012, require that samples collected for the analysis of dissolved metals including dissolved orthophosphate be filtered within 15 minutes of collection of a grab sample or the last subsample of a composite sample. Dissolved metals are a constituent of the composite sample for the stormwater outfall monitoring program.

WQL has committed to splitting composites and filtering dissolved metals samples at the time of submission to the laboratory when they are submitted during normal business hours, and within 24 hours when samples are submitted after hours. Samples filtered within the 24-hour timeframe will not be qualified as estimates

in the context of the program-established data quality objectives discussed in Section 5.2. If filtration is not accomplished within 24 hours of collection, results will be rejected.

**Table 4-2. Sample Handling Requirements**

| Constituent | Container | Holding Time |
|---|---|---|
| **Composite Samples** | | |
| Ammonia ($NH_3$)<br>5-Day Biological Oxygen Demand (BOD5)<br>Chemical Oxygen Demand (COD)<br>Nitrite plus Nitrate ($NO_2$+$NO_3$)<br>Total Kjeldahl Nitrogen (TKN)<br>Total Dissolved Solids (TDS)<br>Total Suspended Solids (TSS)<br>Turbidity<br>Total Phosphorus<br>Mercury -Total<br>Arsenic – Total<br>Cadmium – Total<br>Calcium - Total<br>Lead – Total<br>Magnesium - Total<br>Hardness (as $CaCO_3$) | 15-liter LDPE carboy | 48 hours (in carboy) |
| Dissolved Orthophosphate<br>Cadmium – Dissolved<br>Copper – Dissolved<br>Lead – Dissolved<br>Zinc - Dissolved | | 24 hours (in carboy) |
| **Grab Samples** | | |
| *E. coli* | 500 mL sterilized HDPE | 8 hours |
| **Field Parameters** | | |
| Dissolved Oxygen<br>Temperature<br>pH<br>Conductivity | 1 L glass | Field analysis; 15 minutes |

*LDPE – Low Density Polyethylene*

## 4.7 Chain-of-Custody Procedures

Standard chain of custody (COC) forms, shown in Appendix B, will be completed prior to submittal of samples to the laboratory. Information recorded on the COC includes the following:

- Sample collection team member names
- Sample identification
- Sample type (grab or composite)
- Analyses requested
- Sample start and end times
- Sample start and end dates

A sample is “in custody” if it is either in actual physical possession of authorized personnel or in a secured area that is restricted to authorized personnel. Such areas include laboratory refrigerators, the ACHD Stormwater Lab, ACHD vehicles, and consultant vehicles. Automatic samplers at monitoring stations are installed in locked enclosures or in manholes. Where samplers are installed in manholes, the sample container base will be locked to secure access to the sample. All transfers of custody will be recorded by signature, date, and time by both the individual relinquishing custody and the one receiving custody. This information is placed in the designated area on the bottom of the COC form.

The transferal of grab samples collected during a storm event between the sampling team leader who collected the sample and the field coordinator or designee who will deliver the samples to the lab must be recorded on the COC form. The field coordinator will record his/her signature with the date and time the samples were received on the associated COC form.

Samples may be stored overnight (in coolers with ice) at the ACHD Stormwater Lab or vehicles while awaiting submittal to the laboratory. The COC forms must be reviewed and signed by at least one of the persons who collected the samples listed on the COC form. The COC forms will be delivered to the laboratory with the samples.

If samples are submitted to the laboratory during business hours, samples are relinquished to laboratory personnel in person for immediate receipt with signature, date, and time. ACHD has after-hour access to the laboratory to accommodate sample submittal. When sample delivery occurs after hours, grab samples are placed in a locked refrigerator and composite samples are stored in coolers or sample bases and packed with ice. The team delivering the samples will notify a laboratory representative that the samples have been dropped off and the time the earliest samples were collected. A signed COC form is left in the locked laboratory for morning receipt by laboratory personnel.

Analytical samples will be named using the date of the event, followed by the station number, followed by WG or WC for “Wet Grab” or “Wet Composite,” respectively. For example, a composite sample collected at Whitewater on October 15, 2021, would be labeled 211015-11-WC.

Sample collection times for QC samples will be recorded as 12:00 on the COC form to maintain duplicates as laboratory blind samples. The actual collection time will be recorded on the field form. The QAPP includes detail on the approach to data validation as it pertains to holding times and laboratory qualifiers for QC samples.

## 4.8 Monitoring Station Shut Down

Post-sampling activities include downloading data from flowmeters, samplers, and rain gauges according to the applicable procedures listed in Appendix A; removing/replacing batteries where necessary; and reviewing the overall condition of the equipment. Equipment shutdown will be conducted by ACHD personnel and may occur as late as two weeks after sample collection to accommodate hydrologic data collection.

WQL will analyze the samples for the components of concern identified in Table 4-1. Quality assessment activities, to be performed by the Program QA/QC Officer, will include review of field notes and COC documents, as well as validation of data packages received from the laboratory. QA/QC procedures are discussed in further detail in Section 5.

Section 5

# Quality Assurance/Quality Control

## 5.1 QC Sampling Schedule

The QC sampling schedule developed for the SWOMP consists of a combination of field QC samples and laboratory QC samples. Field QC sample types are described in the QAPP. Field QC sampling intervals will follow the schedule detailed in Table 5-1. Laboratory QC sample results are included in each analytical report.

**Table 5-1. Field QC Sample Collection**

| QC Sample Method[1] | Sampling Frequency | Percent of Total Data Represented[4] |
|---|---|---|
| Grab sample duplicate and field blank | 1 set per event | 20% |
| Composite sample duplicate[2] | 1 composite per year | 7% |
| Composite sample field blank | 1 composite per year | 7 % |
| Composite sample equipment blank[3] | 1 composite per year | 7% |
| Composite sample rinsate blank[3] | 1 composite per year | 7% |

*[1]Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.*

*[2]The composite sample duplicate will be collected at the earliest opportunity, and is contingent upon sample volumes.*

*[3]Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.*

*[4]Percentages are calculated based on 5 sites (4 outfall monitoring sites and 1 subwatershed monitoring site)*

Random number generation was used to develop a QC sample schedule for each water year. The schedule establishes the targeted QC site for each event, as well as an alternate QC site with the goal of collecting one set of QC samples for each event. Each site is assigned a number and a random number generator equation is run for each event. If the selected site cannot be sampled for any given event, the predetermined alternate site will be used. The full QC schedule is included in Appendix C.

ACHD may choose to conduct additional QA/QC to address data discrepancies, potential sample contamination, or other QA/QC issues. These events will be handled on an as-needed basis, depending on the issue(s) involved.

## 5.2 Data Quality Objectives (DQO)

The DQO for ACHD stormwater monitoring can be summarized by the following statement:

Monitoring efforts will provide data of sufficient quality and quantity in accordance with permit requirements to characterize the quality of stormwater discharges from the MS4 and evaluate overall effectiveness of stormwater management practices.

### 5.2.1 Data Quality Indicators (DQIs)

DQIs have been established to set measurable qualitative and quantitative goals for data acceptance that meet the program DQO described above. Each DQI is described below. DQIs are the basis for addressing

field and laboratory analytical instrument performance, as well as sample collection and handling procedures. QA/QC samples provide input for several of the DQIs. QA/QC sample collection procedures are included in Section 2.1 of the QAPP.

DQIs are described fully in Section 1.8.1 of the QAPP. A brief description of each DQI is included in the list below.

- **Project Required Detection Limits (PRDL):** Achieving appropriate reported constituent concentration results at values that allow for comparison to baseline data and water quality standards.
- **Accuracy:** The accuracy of the data is a measure of the extent to which a measured value represents the true value.
- **Precision:** Precision is a measurement of the reproducibility of the analytical data.
- **Bias:** Bias is minimized by using standard data collection and analytical methods and protocols, as well as standard sample preservation, transport, and storage procedures.
- **Representativeness:** Representativeness is a measure of the degree to which data accurately and precisely indicate environmental conditions.
- **Comparability:** The comparability of a data set is the extent to which data accurately and precisely indicate environmental conditions.
- **Completeness:** Completeness is a comparison between the amount of usable data collected versus the total amount of data collected.
- **Sufficiency:** Data set sufficiency is the amount of data required to perform the level or type of analysis necessary for each monitoring element.

Analysis-specific data quality indicators include PRDLs and precision evaluated as relative percent difference (RPD). The target values for these indicators are listed in Table 5-2 below.

**Table 5-2. Data Quality Indicator Targets**

| Constituent | Analytical Method | PRDL[1,2] | Units | Precision[3,4] (RPD) |
|---|---|---|---|---|
| Temperature | EPA 170.1 | 0.01 | °C | NA |
| pH | EPA 150.2 | 0.01 | S.U. | NA |
| Dissolved Oxygen | In-Situ Method 1002-8-2009 | 0.01 | mg/L | NA |
| Conductivity | EPA 120.1 | 0.1 | µS/cm | NA |
| Ammonia ($NH_3$) | SM 4500 NH3 D | 0.0350 | mg/L | 20% |
| 5-Day Biological Oxygen Demand (BOD5) | SM 5210 B | 2.00 | mg/L | 20% |
| Chemical Oxygen Demand (COD) | HH 8000 | 7.00 | mg/L | 20% |
| Nitrite plus Nitrate ($NO_2$+$NO_3$) | EPA 353.2 | 0.0500 | mg/L | 20% |
| Total Kjeldahl Nitrogen (TKN) | EPA 351.2, 10-107-06-2-M | 0.100 | mg/L | 20% |
| Total Dissolved Solids (TDS) | SM 2540 C | 25.0 | mg/L | 20% |
| Total Suspended Solids (TSS) | SM 2540 D | 0.900 | mg/L | 20% |
| Turbidity | EPA 180.1 | 0.3 | NTU | 20% |
| Orthophosphate, as P | EPA 365.1 | 2.00E-3 | mg/L | 20% |
| Total Phosphorus | EPA 200.7 | 6.00E-3 | mg/L | 20% |
| *E. coli* | IDEXX Colilert | 1.0 | MPN/100mL | 40%[5] |
| Mercury – Total | EPA 245.2 | 0.0100 | µg/L | 20% |
| Arsenic – Total | EPA 200.8 | 0.040 | µg/L | 20% |
| Cadmium – Total | EPA 200.8 | 0.025 | µg/L | 20% |
| Calcium – Total | EPA 200.7 | 0.0460 | mg/L | 20% |
| Lead – Total | EPA 200.8 | 0.050 | µg/L | 20% |
| Magnesium – Total | EPA 200.7 | 39.5 | µg/L | 20% |
| Hardness (as $CaCO_3$) | EPA 200.7 | 0.115 | mg/L | 20% |
| Cadmium – Dissolved | EPA 200.8 | 0.025 | µg/L | 20% |
| Copper – Dissolved | EPA 200.8 | 0.15 | µg/L | 20% |
| Lead – Dissolved | EPA 200.8 | 0.050 | µg/L | 20% |
| Zinc – Dissolved | EPA 200.8 | 0.78 | µg/L | 20% |
| Flow/Discharge Volume | Non Specific | 0.001 | cfs | NA |
| Precipitation | Non Specific | 0.01 | in | NA |

[1]*Field instrument resolution values are listed in lieu of a PRDL for field parameter measurements.*

[2]*PRDL is defined as the effective method detection limit (MDL) as reported by the analytical laboratory.*

[3]*Precision calculations based on field duplicate samples.*

[4]*In cases where one value is reported at the MDL and the other value is less than five times the MDL, the samples will be considered within acceptable precision limits.*

[5]*E. coli is evaluated using the RPD of logarithmic parent and duplicate values. The acceptable RPD between the two values is also higher than other constituents. These changes are in place to accommodate the inherent variability in E.Coli samples.*

Anticipated issues with optimal performance for DQIs include high potential for holding time exceedances with *E. coli* as well as meeting the method-required filtration window for dissolved orthophosphate in composite samples. These issues will be monitored closely from the outset of the stormwater outfall monitoring program to track and understand the impact these deviations may have on DQIs.

### 5.2.2 Storm Event Acceptance Criteria

Acceptance criteria for a representative storm are derived from Permit requirements for representative sampling as listed in Section 6.2.4 and target volume and duration goals established for this program. Storm data used to evaluate acceptance, including antecedent dry period, precipitation amount, and flow volumes, will be measured based on data records at the site-specific rain gauges and flowmeters.

The acceptance criteria for composite samples are based on the total amount of runoff represented by the composite sample. Ideally, upon completion of the sampler program, a flow-weighted composite sample is collected that represents the entire duration of the storm. However, in some cases, high rainfall amounts result in the automatic sampler program finishing before capturing the entire storm. When this situation occurs, the full composite bottle is removed from the sampler, a second bottle is installed, and the sampler program is restarted. During the bottle change, there can be an unavoidable gap in collection time of the flow-weighted composite sample because of logistical constraints in reaching each monitoring station at the exact time the first sample bottle is full. All sample bottles filled at a particular station will be composited at the WQL. This composite sample is flow-weighted for the portion of the storm event that was sampled.

The percentage of the storm event that is represented by the composite sample can be determined from a review of the storm hydrograph at each location. The sample will be considered valid and unqualified when the composite sample represents at least 75 percent of the total hydrograph with the first hour of runoff included, or the sample represents the first six hours of the discharge. If the composite sample represents between 50 and 75 percent of the measured flow volume associated with the storm, then the sample will be qualified, and data will be considered an estimate based on the DQIs outlined earlier in this section. If the composite sample represents less than 50 percent of the total hydrograph, then it will be rejected. Another storm may be targeted to replace it if possible.

On a limited number of historic occasions, an automatic sampler has triggered before the beginning of storm event runoff. In the event of this occurrence, the extraneous aliquots will be considered not to have compromised the entire composite sample if it represents less than 10 percent of the total composite sample volume (typically one to two subsamples). In the event of this occurrence, the composite sample will be qualified based on the DQIs outlined earlier in this section. If the composite sample is determined to be comprised of 10 percent or more non-stormwater subsamples, the entire composite sample will be rejected.

Section 6

# Data Management and Reporting

All data collected as part of the SWOMP will be stored in electronic format for secure storage and timely and accurate retrieval for data interpretation, graphing, and reporting. Data collected as part of the sampling program will include rainfall data, runoff volumes, runoff coefficients, field analytical data, laboratory analytical data, QA/QC results, and some qualitative observations. Specific management and reporting procedures are provided below.

## 6.1 Data Acquisition Requirements (Non-Direct Measurements)

Weather forecasts and hourly precipitation totals will be typically obtained from the NWS Boise airport station website. Additional forecasts or weather reports may be retrieved from local media, community, or commercial weather services. When obtaining weather forecasts for storm events, the Environmental Specialist will typically call the NWS Boise airport station for additional details if it appears that an approaching storm may meet the sampling criteria. Pertinent details of these conversations will be recorded on the Sampling Event Communication Form (Appendix B).

## 6.2 Data Management System

Seveno DataSight (DataSight) data management software is used for handling data collected from stormwater monitoring programs. DataSight provides a safe and secure platform for storing, viewing, validating, and analyzing data. Program data will be imported into the database according to established procedures listed in Appendix A. The database will assist with implementation of the QAPP and the individual monitoring plans guiding each monitoring program.

The DataSight database is configured in three tiers or “levels” under which data is stored and related. The database structure and level dependencies for the stormwater outfall monitoring program are illustrated in Figure 6-1 below.

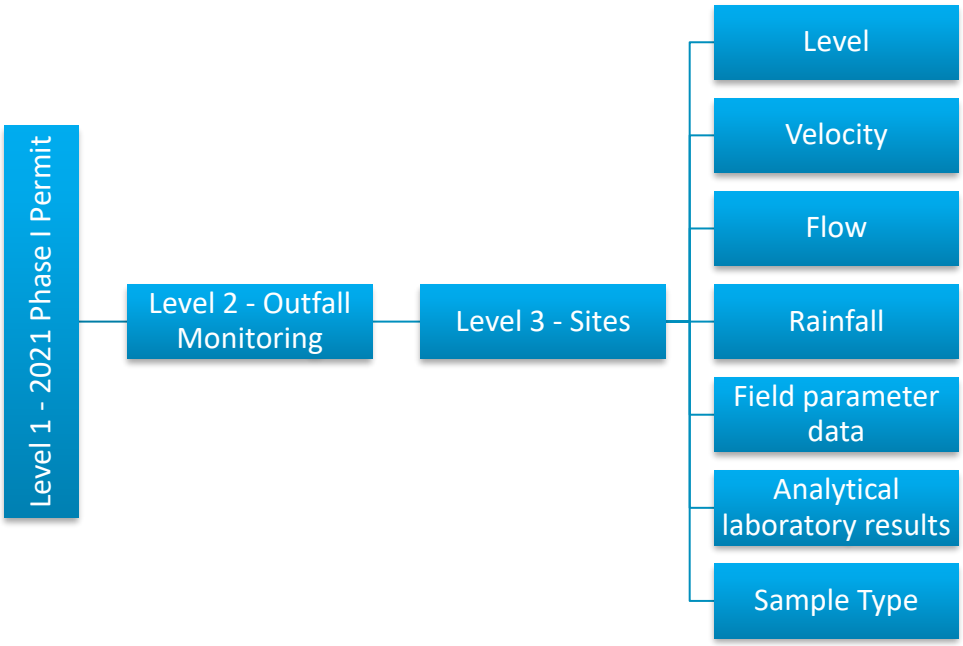



**Figure 6-1: Database Levels Setup**

## 6.3 Data Reporting

### 6.3.1 Storm Event Reporting

Following each sampling event, a storm event report summarizing the results of all sampling conducted will be prepared by the consultant. The report will also provide a specific summary of the storm characteristics and monitoring activities at each of the targeted stations and will include the following level 2 data and control documents:

- Storm Event Information
  - date and time span of the storm
  - antecedent dry period
  - a qualitative description of the forecast and storm
  - composite sample volumes
  - trigger volumes
- Water Quality Data
  - field parameter measurements
  - laboratory analytical data
  - QC sample results
  - storm event pollutant loading estimates from each site (described below)

- Flow Data
  - storm event flow totals
- Rain Data
  - storm event precipitation totals
- Control Documents
  - laboratory analytical report
  - data validation checklist

Additionally, each storm event report will include the following report elements:

- Project status summary table
- Discussion of QA/QC analysis
  - storm acceptance criteria
  - results of the data validation review for the event
- Narrative summary of notes from the current event and recommendations for the next event
- Event hydrograph for each monitoring station

**Storm Event Pollutant Loading Estimates**

Pollutant loading estimates for each event will be calculated using the following formula when complete runoff volume measurements are available.

$$L = 6.24E^{-5} * F * C$$

Where:

L = Event Load (pounds)

F = Event Runoff (cubic feet)

C = Pollutant Concentration (mg/L)

6.24 $E^{-5}$ = Unit conversion factor

When runoff volume must be estimated due to incomplete flow measurements, the Simple Method approved by the EPA for simple pollutant loading estimations for urban stormwater will be used. The following is the equation that will be used to estimate the event pollutant loads if measured flow volumes are not available or are incomplete.

Simple Method

$$L = 0.226 * R * C * A$$

Where:

L = Event Load

R = Event Runoff (inches)

C = Pollutant Concentration (mg/L)

A = Area (acres)

0.226 = Unit conversion factor

Runoff Calculation

$$R = P * Pj * Rv$$

Where:

R = Event Runoff (inches)

P = Event Rainfall (inches)

Pj = Fraction of annual rainfall events that produce runoff (0.9)

Rv = Runoff Coefficient

The site-specific runoff coefficient (Rv), as presented in the EPA formula, is equal to the percent of impervious surface in the drainage area represented as a decimal. However, this does not account for impervious areas in areas without curb and gutter, canopy cover and interception, or stormwater controls in the drainage area. Therefore, the runoff coefficient variable in the equation will be refined as understanding of the drainage area is expanded.

### 6.3.2 Stormwater Outfall Monitoring Annual Reporting

A Stormwater Outfall Monitoring summary will be attached to the MS4 Annual Report Form (NPDES Phase I Permit Appendix B) submitted to IDEQ annually. This summary will include the results from each storm event and any monitoring, assessment, or evaluation efforts conducted during the reporting period (October 1 – September 30).

### 6.3.3 Stormwater Outfall Monitoring Final Report

As required by Permit Part 6.4.3, a final report summarizing all monitoring data collected during the permit term will be submitted as an attachment to the Permit Renewal Application (April 3, 2026). The report will be based upon the storm event reports and will include a comprehensive evaluation of all the data collected. If data have been qualified as part of the QA/QC process, this will be noted in the appropriate table(s). The data evaluation will include the following:

- A statistical summary for analytical parameters with five or more data points
- A yearly comparison of the median concentrations for each monitoring site
- An estimate of event mean concentrations for each parameter sampled for each storm event
- Event Mean Concentration trend analyses demonstrating pollutant loading over time
- A discussion of data quality including qualified data points and deviations from program plans
- A discussion of pollutant reduction efforts and results
- A discussion and analysis of sampling analytical performance against DQOs including discussion of any planned changes to the current plan based on QA/QC issues, site conditions, or program conditions

### 6.3.4 Evaluation and Assessment

Evaluation and assessment of the stormwater outfall monitoring data will follow the general guidance identified in the QAPP. For the SWOMP, pollutant loads will be estimated based on measured flow and concentrations throughout the system. Data will be compiled with the objective to obtain sufficient data points for statistical and trend analyses to evaluate the effectiveness of stormwater management efforts at reducing pollutant loads from the MS4.

## Section 7

# References


Ada County Highway District (ACHD), Storm Water Outfall Monitoring Plan, 2014a.

———–, Treasure Valley 2013 Urban Tree Canopy analysis, modified in 2014 based on 2013 aerial photography, 2014b.

———–, E-mail Correspondence with Jason Korn, ACHD Stormwater Quality Specialist, 2014c.

———, Quality Assurance Program Plan for NPDES Storm Water Permit Monitoring Boise and Garden City, Idaho, 2021.

Brown & Caldwell (BC). ACHD Database Guidance Document, 2014

U.S. Environmental Protection Agency (EPA). *Methods for Chemical Analysis of Water and Wastes*, EPA-600/4-79-020, March 1983. Cincinnati, Ohio: U.S. Environmental Protection Agency Environmental Monitoring and Support Laboratory, 1983.

———, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System, 48 FR 14153, 40 CFR 122.21(g)(7)(ii), 1983.

———, Guidance on Environmental Data Verification and Data Validation (EPA QA/G-8), EPA 240-R-02-004, Office of Environmental Information, 2002.

———, Guidance on Systematic Planning Using the Data Quality Objective Process, EPA Bulletin # EPA 240-B-06-001, 2006.

———, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Analysis and Sampling Procedures; Final Rule, Federal Register Vol. 77 No. 97. 40 CFR Parts 136, 260, et al., 2022.

Seveno, DataSight Users Manual, Version 3.10.4, 2022.

# Figures

Monitoring Area

Lucky

Whitewater

Main

Americana

Rain Gauges

Figure 1

# Vicinity Map
# Phase I NPDES Outfall Sampling Stations

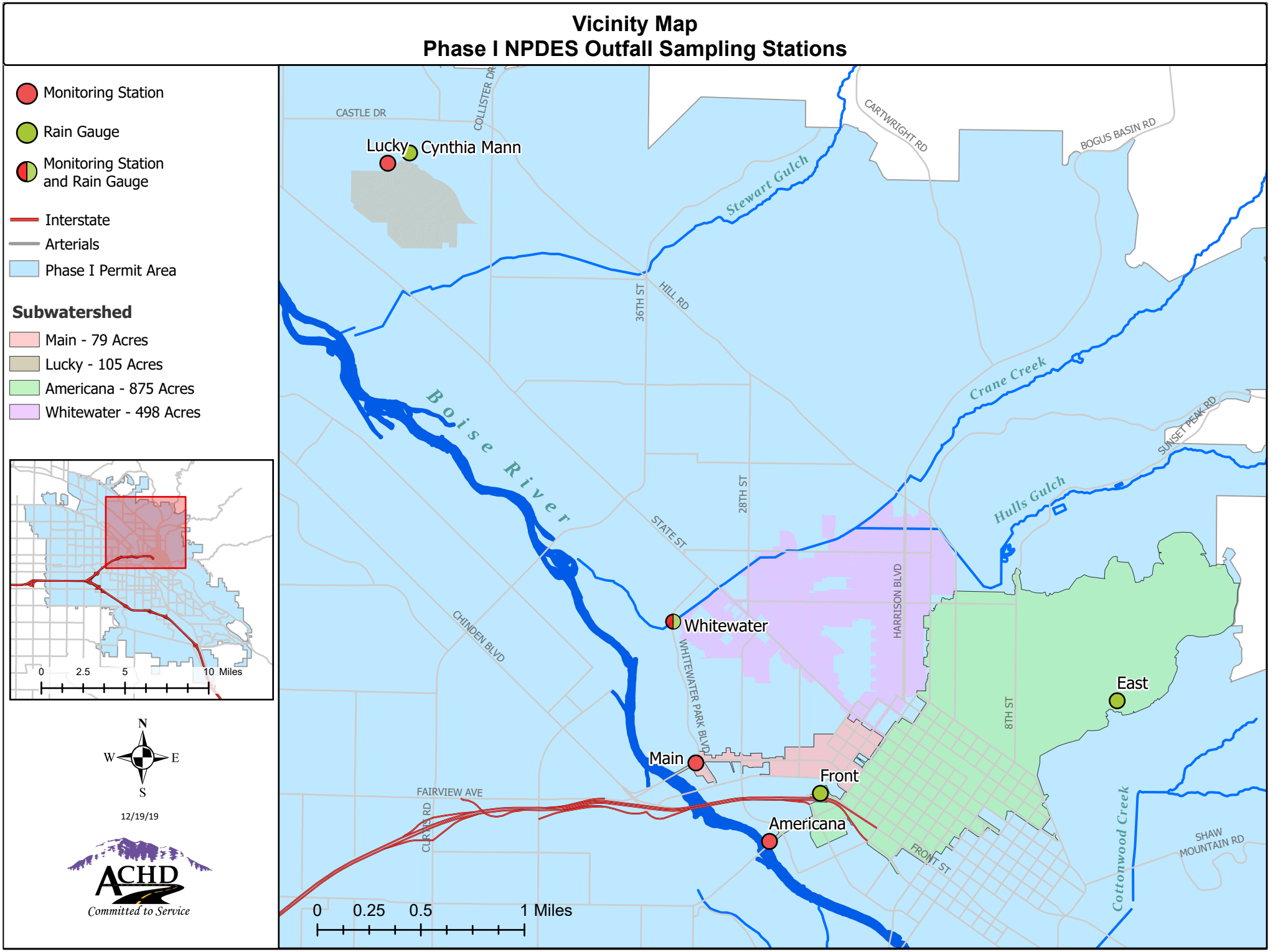
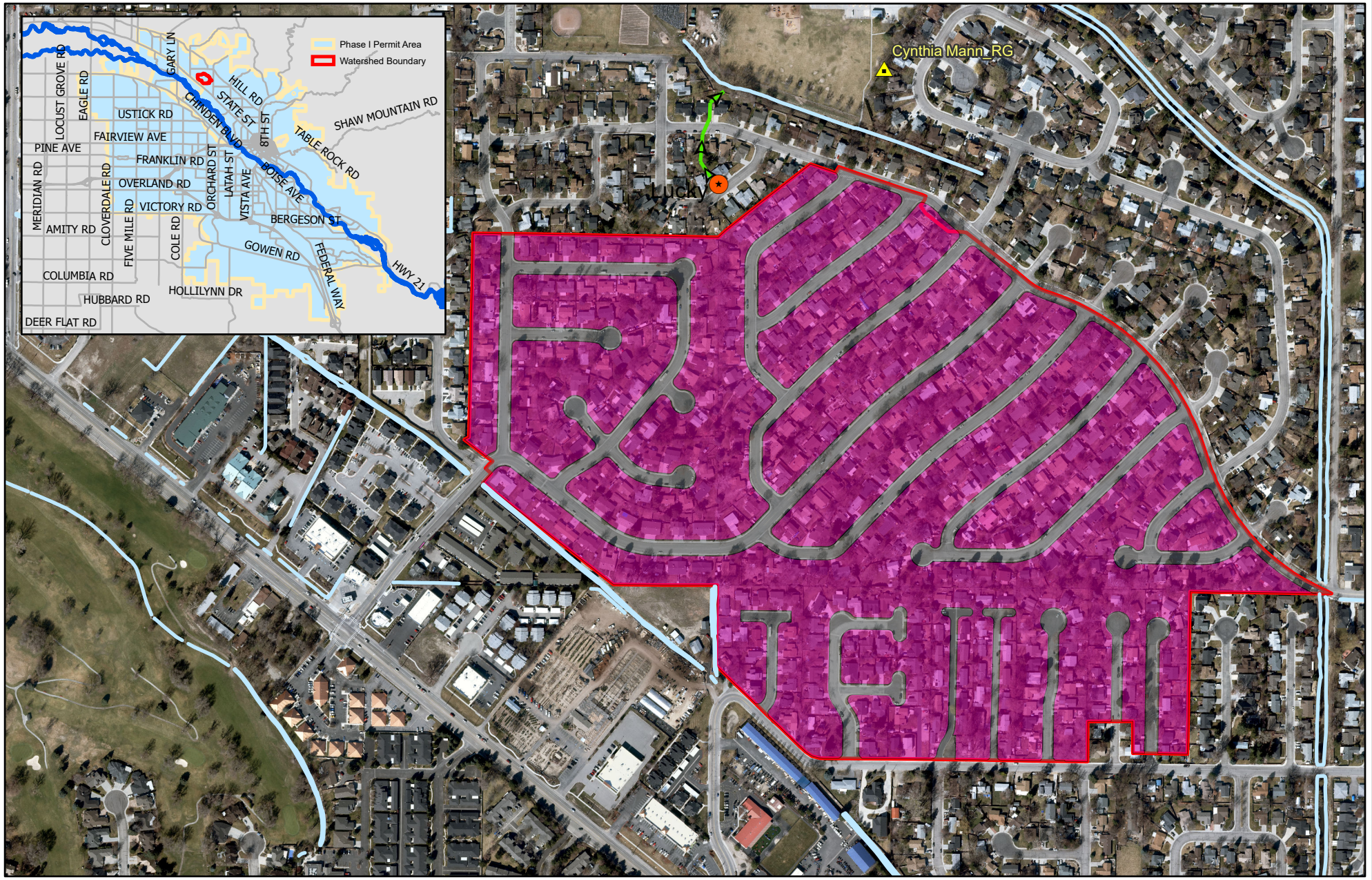


Figure 2




**Lucky Monitoring Station**
105 Acres
40% Impervious

**Land Use Percentages (percent impervious in parentheses)**

- Right of Way - 22% (83%)
- Residential Medium - 78% (23%)

source: 2013 Urban Tree Canopy Analysis, modified in 2014 based on 2013 aerial photography

- Outfall Sampling Stations
- Rain Gauges
- Canals/Waterways
- Watershed Boundary
- Outfall Conveyance

Date: 7/15/2021

0 390 780 Feet

ACHD Committed to Service

File Location: \\APPWSUS\ACHDFiles\Groups\DVS\STORMWATER\Maps\Phase I Monitoring\Lucky

Figure 3

# Lucky Monitoring Station

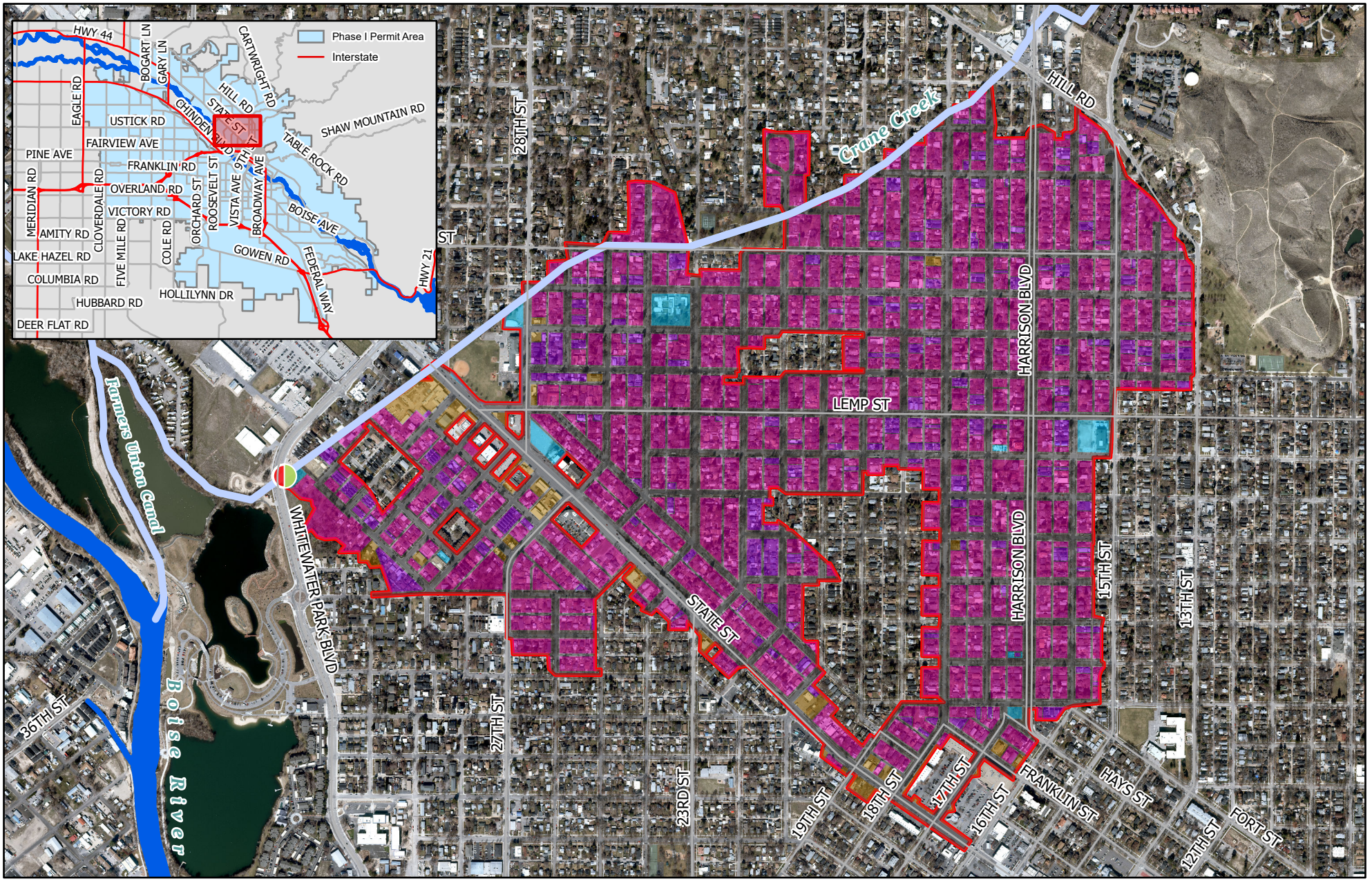



*Station setting looking northwest – equipment in manhole*




*Inside manhole*

Figure 4




**Whitewater Monitoring Station**
**498 Acres**
**43% Impervious**

**Land Use Percentages (percent impervious in parentheses)**

- Right of Way - 36% (70%)
- Commercial - 4% (41%)
- Residential Medium - 50% (25%)
- Residential High - 7% (31%)
- Public and Schools - 3% (51%)

source: 2013 Urban Tree Canopy Analysis, modified in 2014 based on 2013 aerial photography

- Monitoring Station and Rain Gauge
- Waterways
- Watershed Boundary

Date: 7/7/2021

N

ACHD Committed to Service

0 750 1,500 Feet

File Location: \\APPWSUS\ACHDFiles\Groups\DVS\STORMWATER\Maps\Phase I Monitoring\Whitewater

Figure 5

## Whitewater Monitoring Station

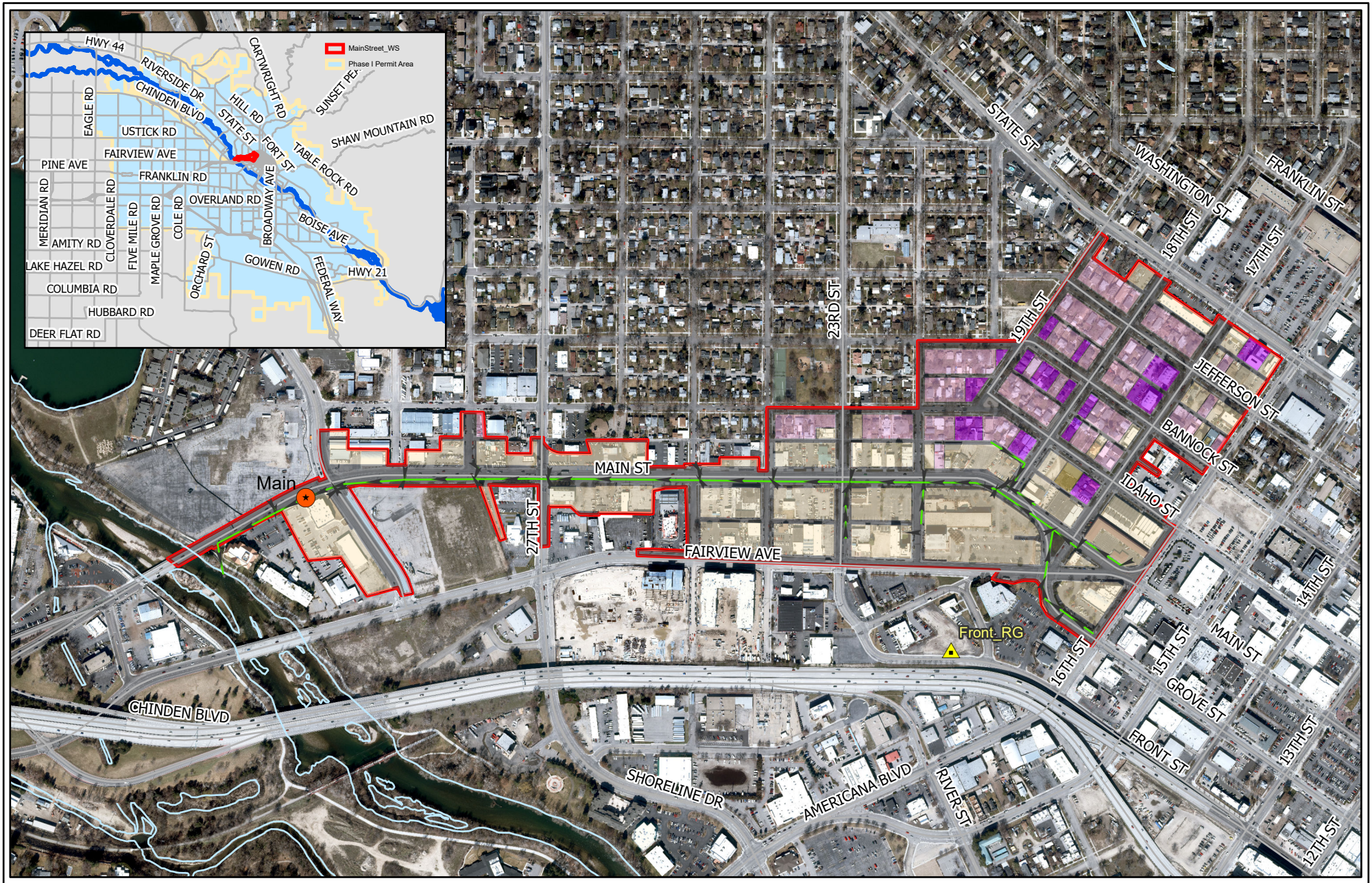



*Station setting looking north*



*Inside cabinet*

Figure 6




**Main Monitoring Station**
79 Acres
55% Impervious

**Land Use Percentages (percent impervious in parentheses)**

- Right of Way - 43% (66%)
- Commercial - 37% (55%)
- Residential Medium - 14% (30%)
- Residential High - 5% (39%)
- Public - 1% (0%)

source: 2013 Urban Tree Canopy Analysis, modified in 2014 based on 2013 aerial photography

- Outfall Sampling Stations
- Rain Gauges
- Canals/Waterways
- Watershed Boundary
- Outfall Conveyance

Date: 7/15/2021

ACHD Committed to Service

0 500 1,000 Feet

File Location: \\APPWSUS\ACHDFiles\Groups\DVS\STORMWATER\Maps\Phase I Monitoring\Main

Figure 7

## Main Monitoring Station

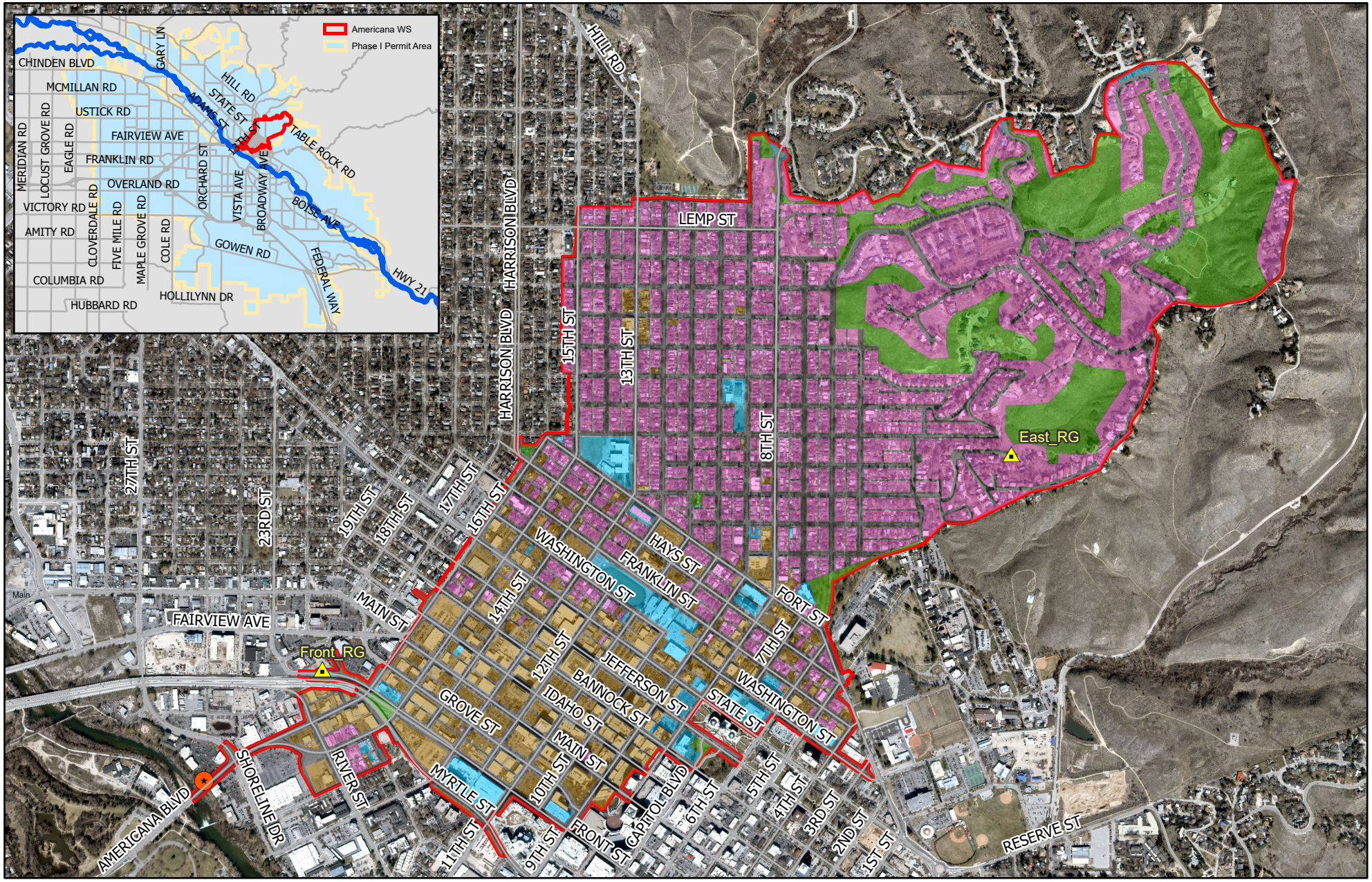



*Station setting looking northwest*



*Inside cabinet*

Figure 8




Americana
Monitoring Station
875 Acres
39% Impervious

**Land Use Percentages (percent impervious in parentheses)**

- Right of Way - 30% (69%)
- Commercial - 13% (56%)
- Residential (Hi/Med/Low) 39% (23%)
- Parks and Open Space - 14% (2%)
- Public and Schools - 4% (45%)

source: 2013 Urban Tree Canopy Analysis, modified in 2014 based on 2013 aerial photography

- Outfall Sampling Stations
- Rain Gauges
- Canals/Waterways
- Watershed Boundary
- Outfall Conveyance

Date: 7/15/2021

ACHD Committed to Service

0 1,000 2,000 Feet

File Location:

Figure 9

# Americana Monitoring Station




*Station setting looking southwest*



*Inside cabinet*

Figure 10

# Phase I Rain Gauges

Cynthia Mann Rain Gauge



Front Rain Gauge



East Rain Gauge



Whitewater Rain Gauge



# Appendix A: Standard Operating Procedure and Procedure Guidance Documents

The following Standard Operating Procedure (SOP) and Procedure Guidance (PG) documents will be referenced as needed to assist with implementation of the Stormwater Outfall Monitoring Plan. The SOPs and PGs listed below are readily accessible by ACHD and consultant personnel for use in the field or in the office to complete tasks associated with the acquisition and management of data under the ACHD Stormwater Outfall Monitoring Program.

SOP 110: Discrete grab sample collection

SOP 111: Low flow grab sample collection

SOP 112: Large volume grab sample

SOP 312a: YSI Model 85 dissolved oxygen and conductivity meter operation, calibration, and maintenance

SOP 312b: YSI Pro 2030 dissolved oxygen meter operation, calibration, and maintenance

SOP 313: Horiba pH meter operation, calibration, and maintenance

SOP 314: Gas detector operation

SOP 322: In-Situ multiparameter sonde calibration and maintenance

SOP 323: In-Situ multiparameter sonde operation

PG 210: Hach 950 flowmeter download using Insight software

PG 211: HOBO equipment download using HoboWare

PG 212: ISCO equipment data access and download

PG 214: Hach AS950 data download

PG 315: Hach equipment semi-annual maintenance

PG 319: Rain gauge inspection and maintenance

PG 324: ISCO equipment semi-annual maintenance

PG 512: Exporting data from Flowlink Pro

PG 530: Exporting data from HoboWare

PG 531: Importing and exporting from FSData

PG 532: Transferring from Flowlink LE to Flowlink Pro

PG 533: Importing data into DataSight

PG 534: QAQC Procedures in DataSight

PG 537: Exporting data from InSight to CSV file

# Appendix B: Communication and Field Forms

Grab Sample Data Form

Composite Sample Collection Form

Set Up/Shut Down Form – ISCO

Set Up/Shut Down Form - HACH

Chain-of-Custody Form

Sampling Event Communication Form

# Grab Sample Data Form

**STATION: _____**

**Personnel: _____ Date/Time On-Site: _____**

| Flow Meter Current Status | | | | | | |
|---|---|---|---|---|---|---|
| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) | Flow Start (date/time) | Rainfall (in) |
| | | | | | | |

| Grab Information | | | | |
|---|---|---|---|---|
| | Sample ID | Date | Time | Labeled? |
| Site *E.Coli* | -WG | | | ☐ |
| Field Duplicate *E.Coli* | -101 | | | ☐ |
| Field Blank *E.Coli* | -001 | | | ☐ |

*Note: time on bottle for QC samples is 1200

| Field Parameters | | | | | |
|---|---|---|---|---|---|
| Meter number | Time | Temp (C) | D.O. (mg/L) | pH (S.U.) | SpCond (uS/cm) |
| | | | | | |

| Sampler Current Status | |
|---|---|
| First Subsample Date/Time | |
| Last Subsample Date/Time | |
| # of Subsamples taken | |

**Comments:**

# Composite Sample Collection

**STATION: _____** **Bottle _____ of _____**

**Personnel: _____** **Date/Time On-Site: _____**

| | |
|---|---|
| ☐ Halt Sampler program | |
| ☐ Put lid on sample bottle; label sample bottle | |
| **Sample ID:** | -WC |
| **Approx Sample Volume (mL):** | |
| **Clarity (ex. Clear, Cloudy, Silty):** | |
| **Color (ex. Clear, Gray, Tan, Brown, Black):** | |
| **QA/QC Sample ID:** | -103 (Time: 1200) |

| **Subsample Information** | | | | | |
|---|---|---|---|---|---|
| Trigger # | Date/Time | Sampler Message/ Subsample Result | Trigger # | Date/Time | Sampler Message/ Subsample Result |
| 1 | | | 13 | | |
| 2 | | | 14 | | |
| 3 | | | 15 | | |
| 4 | | | 16 | | |
| 5 | | | 17 | | |
| 6 | | | 18 | | |
| 7 | | | 19 | | |
| 8 | | | 20 | | |
| 9 | | | 21 | | |
| 10 | | | 22 | | |
| 11 | | | 23 | | |
| 12 | | | 24 | | |

**Comments:**

| **If sampling is complete:** | **If continuing sampling (sample bottle change-out):** |
|---|---|
| ☐ Power off sampler | ☐ Keep flowmeter running |
| ☐ Verify flowmeter is running | ☐ Install new 15L bottle; add ice |
| ☐ Add ice to sample transport cooler | ☐ Restart program from beginning |
| ☐ Complete COC form; arrange transport to lab | **Date/Time Restarted: _____** |
| | ☐ Verify running |

| Liquid Height vs. Approximate Sample Volume Conversion Chart | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume | Liquid Height | Sample Volume |
| **0.5”** | 400 mL | **3.0”** | 3500 mL | **5.5”** | 7250 mL | **8.0”** | 11000 mL | **10.5”** | 14750 mL |
| **1.0”** | 800 mL | **3.5”** | 4250 mL | **6.0”** | 8000 mL | **8.5”** | 11750 mL | **11.0”** | 15500 mL |
| **1.5”** | 1400 mL | **4.0”** | 5000 mL | **6.5”** | 8750 mL | **9.0”** | 12500 mL | **11.5”** | 16250 mL |
| **2.0”** | 2000 mL | **4.5”** | 5750 mL | **7.0”** | 9500 mL | **9.5”** | 13250 mL | **After 12”** | 1” = 1500 mL |
| **2.5”** | 2750 mL | **5.0”** | 6500 mL | **7.5”** | 10250 mL | **10.0”** | 14000 mL | **Lab min** | 8,000 mL |

# Set Up/ Shut Down Form – ISCO

**STATION: _____**

## SET UP

**Personnel: _____**

**Date/Time On-Site: _____**

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

| | |
|---|---|
| **Downloaded to:** | |
| **Enable Condition:** | |
| **Flow Pulse Interval:** | |

**On-Site**

- ☐ Replace flowmeter battery, install sampler battery
- ☐ Perform decon. cycle
- ☐ Install 15L sample bottle, with ice
- ☐ Leave bottle lid at site, in a clean re-sealable plastic bag
- ☐ Set Sampler program parameters
- ☐ Check date/time on Sampler
- ☐ Verify all cable and tubing connections
- ☐ Verify Sampler Program is running

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☐ Direct or Remote; Date/time _____
- ☐ Retrieve data and review recent flow history
- ☐ Change Wireless Power Control to Storm Event
- ☐ Change Data Storage Rates to 1 minute for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: On Trigger, and set Sampler Enable equation
- ☐ Set Sampler Pacing to Flow Paced, and set trigger volume

**Comments:**

---

## SHUT DOWN

**Personnel: _____**

**Date/Time On-Site: _____**

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| **Downloaded to:** | |
| | |

**On-Site**

- ☐ Replace flowmeter battery
- ☐ Remove battery from sampler

**Flowlink** (Refer to Flowlink Instructions, if needed)

- ☐ Direct or Remote; Date/time _____
- ☐ Retrieve data
- ☐ Change Wireless Power Control to Dry Weather
- ☐ Change Data Storage Rates to 15 minutes for Level, Velocity, Total Flow, and Flow Rate
- ☐ Enable Sampler: Never

**Comments:**

# Set Up/ Shut Down Form – HACH

**STATION: _____**

## SET UP

**Personnel: _____**

**Date/Time**
**On-Site: _____**

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Battery (V) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| **Downloaded to:** | | | | |
| **Velocity Cutoff:** | | | | |
| **Trigger Volume:** | | | | |

☐ Download flowmeter, if program is running
☐ Install batteries on flowmeter and sampler
☐ Perform decon. cycle
☐ Install 15L sample bottle, with ice
☐ Leave bottle lid at site, in a clean re-sealable plastic bag
☐ Verify all cable and tubing connections
☐ Check date and time on flowmeter and sampler
☐ Set flowmeter program and sampler program parameters
☐ Set logging interval to 1 minute
☐ Start flowmeter program and sampler program
☐ Verify running

**Comments:**

---

## SHUT DOWN

**Personnel: _____**

**Date/Time**
**On-Site: _____**

| Time | Level (in) | Flow (cfs) | Velocity (fps) | Total (cf) | Battery (V) |
|---|---|---|---|---|---|
| | | | | | |
| **Downloaded to:** | | | | | |
| | | | | | |

| **If flow monitoring is complete:** | **If continuing to monitor flow:** |
|---|---|
| ☐ Halt program on flowmeter<br>☐ Download flowmeter data<br>☐ Remove flowmeter battery | ☐ Replace flowmeter battery<br>☐ Reset logging interval to 15 minutes<br>☐ Change velocity cutoff to 0.02 fps<br>☐ Start program<br>☐ Verify running |

**Comments:**

## Ada County Highway District

Attn: Tammy Lightle
3775 Adams Street
Garden City, Idaho 83714–6418
Tel. (208) 387–6255
Fax (208) 387–6391

Purchase Order: 63058181
Project: Stormwater-PI
Sampler(s):

| Lab# | Begin Date | End Date | Begin Time | End Time | Sample Identification | Sampler Initials | Matrix | Type | | $BOD_5$ - SM 5210 B | COD - Hach 8000 | TSS - SM 2540 D | TDS - SM 2540 C | TKN - EPA 351.2 | TP - EPA 200.7 | Orthophosphate - EPA 365.1 | Total As, Cd, Pb - EPA 200.8 | Diss. Cd Cu, Pb, Zn - EPA 200.8 | Total Hg - EPA 245.2 | E. Coli - IDEXX Colilert | Turbidity - EPA 180.1 | Hardness - EPA 200.7 | $NO_3$+$NO_2$ - EPA 353.2 | $NH_3$ - SM 4500 $NH_3$ - D | Total Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Water | Grab | Composite | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by (sign) | Date & Time Transferred | Received by (sign) | Comments/Special Instructions: |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**SAMPLING EVENT COMMUNICATION FORM**

| Date: 5/12/2022 | Time: 7:51 AM | Initials: TL |
|---|---|---|
| Is there a targeted sampling event during the next 36 hours?<br>(Or, if it is Friday, is a targeted event expected before 5:00 PM Monday?) | | No |

| | |
|---|---|
| Past 72 hr Precip | 0.10" |
| Date and time of expected event | |
| Expected amount of precipitation | |
| Percent chance of precipitation | |
| Percent chance of >0.10" over 12 hours | |

NWS Update

Targeted Station & Samples

| Lucky | Whitewater | Main | Americana | AS_6 | State (Phase II) |
|---|---|---|---|---|---|
| ☒ Grab | ☐ Grab | ☒ Grab | ☐ Grab | ☒ Grab | ☐ Grab |
| ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☒ Composite | ☐ Composite |

Type of Forecasted Precipitation

☐ Light Rain ☐ Rain ☐ Rain on Snow
☐ Scattered Showers ☐ Thunder Showers ☐ Snowmelt
☐ Other:

Reasons for Not Targeting a Forecasted Storm and/or Stations

☐ Holiday
☒ Waiting on Antecedent Dry Period – Expires: 5/12 10:46 AM
☐ Equipment Concerns:
☐ Other:

Text Forecast

NWS Forecast for: Boise ID
Issued by: National Weather Service Boise, ID
Last Update: 4:55 am MDT May 12, 2022

Today: Partly sunny, with a high near 62. Light and variable wind.
**Tonight: Showers likely, mainly after midnight. Mostly cloudy, with a low around 44. Southwest wind around 5 mph becoming calm in the evening. Chance of precipitation is 60%.**
Friday: A 20 percent chance of showers before noon. Mostly cloudy, with a high near 63. Calm wind becoming west northwest 5 to 7 mph in the afternoon.
Friday Night: A 50 percent chance of showers after midnight. Mostly cloudy, with a low around 48. North northwest wind around 5 mph becoming calm in the evening.
Saturday: A 50 percent chance of showers, mainly before noon. Cloudy, with a high near 69. Calm wind.
Saturday Night: Partly cloudy, with a low around 49.
Sunday: Mostly sunny, with a high near 82.
Sunday Night: A 20 percent chance of showers and thunderstorms before midnight. Partly cloudy, with a low around 53.
Monday: Mostly sunny, with a high near 78.
Monday Night: Partly cloudy, with a low around 52.
Tuesday: Mostly sunny, with a high near 76.

Example

Tuesday Night: Partly cloudy, with a low around 47.
Wednesday: Partly sunny, with a high near 69.

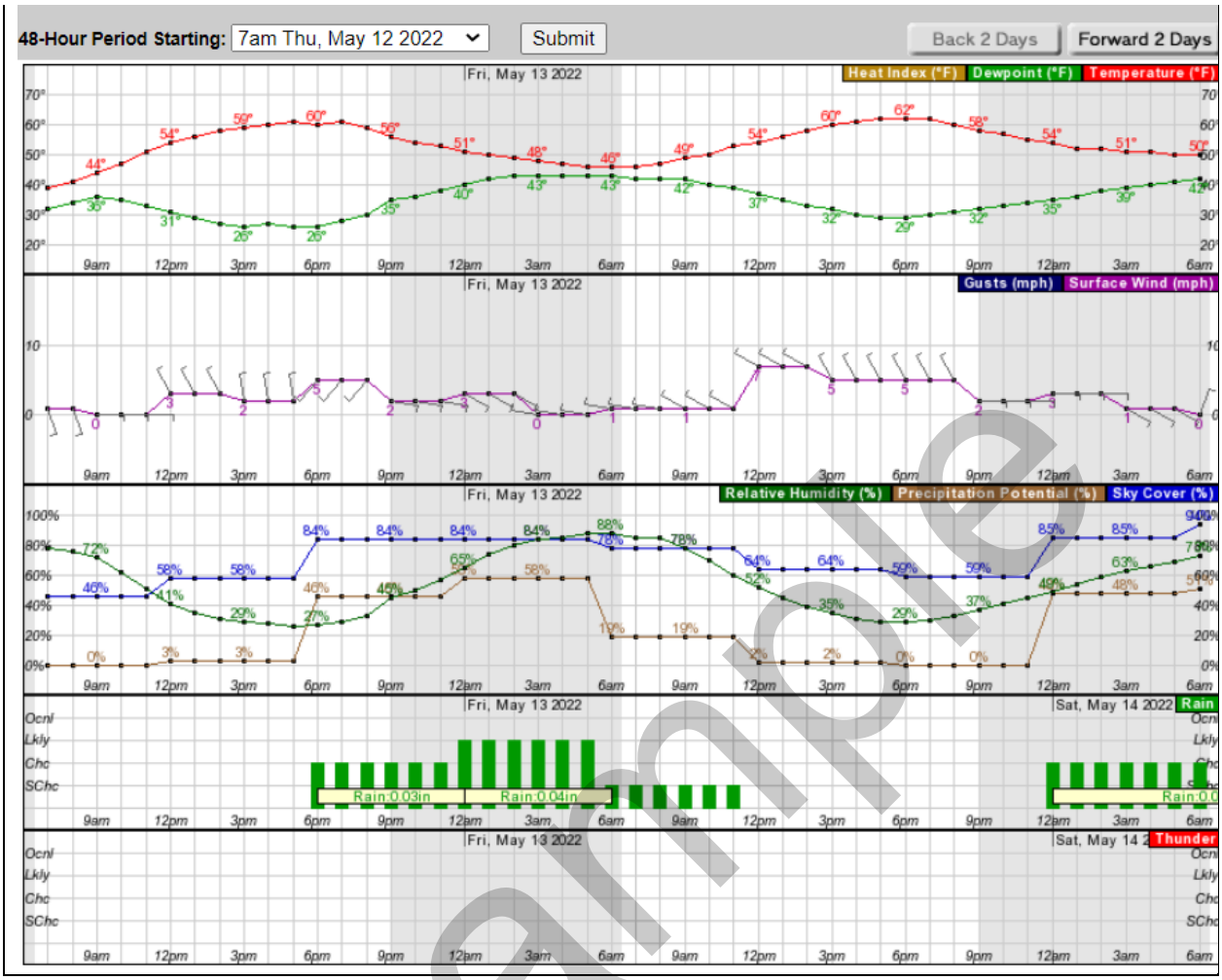
Forecast Discussion
Area Forecast Discussion
National Weather Service Boise ID
342 AM MDT Thu May 12 2022

.SHORT TERM...Today through Saturday night...Zonal flow will continue mostly dry and mild conditions to the region through Thursday morning. **Precipitation ahead of a weaker upper level trough will move into** southeast Oregon on Thursday afternoon, and then into the **southwest Idaho on Thursday evening**. Isolated thunderstorms are expected in northwest Baker and Harney Counties in Oregon as this system pushes in on Thursday afternoon. Snow showers are expected above 5500 feet MSL, with snow amounts totaling 1-3 inches for higher elevations. Showers will linger in southwest Idaho through early Friday morning, but areas south of the Owyhee Mountains are expected to stay dry through this event. **Another push of moisture ahead of a weak shortwave trough will move into** Baker County, OR, the West Central Mountains, and **Upper Treasure Valley on Friday evening, bringing light rain and snow showers to the northern half of our region.** Snow levels will elevate to 6500-7500 feet MSL overnight on Friday, bringing snow mainly to the high peaks. Thunderstorms are also possible on Saturday afternoon in the northern reaches of our CWA with this second system. A ridge will build into the region on Saturday night, bringing dry and mostly clear conditions overnight. Temperatures will remain 5-10 degrees below normal through Friday night, but ridging from our southwest will warm temperatures to near normal on Saturday.

.LONG TERM...Much warmer Sunday after passage of a warm front Saturday night. Pacific cold front late Sunday and Sunday evening will bring showers and (possibly strong) thunderstorms mainly to northern areas, gusty winds, and cooler temps. Clearing and cooler Monday morning but a second, weaker cold front will bring another chance of showers and thunderstorms to Baker County and the mountains in Idaho later Monday and Monday evening. Partly cloudy, windy, and cool Tuesday under strong westerly flow aloft, with a slight chance of rain and high-mountain snow showers in the Idaho central mountains. Next Pacific cold front Wednesday with showers and thunderstorms (mainly north), gusty winds, and further cooling, then showery in all areas Thursday with snow in the mountains and even cooler temps as the upper trough passes through.

Example

Hourly Forecast


48-Hour Period Starting: 7am Thu, May 12 2022
Submit
Back 2 Days
Forward 2 Days
Fri, May 13 2022
Heat Index (°F)
Dewpoint (°F)
Temperature (°F)
Gusts (mph)
Surface Wind (mph)
Relative Humidity (%)
Precipitation Potential (%)
Sky Cover (%)
Sat, May 14 2022
Rain
Thunder
Ocnl
Lkly
Chc
SChc
Rain:0.03in
Rain:0.04in
9am
12pm
3pm
6pm
9pm
12am
3am
6am

Example

# Appendix C: Full QA/QC Sampling Schedule

## Phase I QC Sample[1,2] Schedule for WY22

| Site Name | Assigned # |
|---|---|
| Lucky | 1 |
| Whitewater | 2 |
| Main | 3 |
| Americana | 4 |
| AS_6 | 5 |

| **Wet Grab Sample Schedule** | | | | | | |
|---|---|---|---|---|---|---|
| | Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 |
| Plan | Main | Main | Lucky | Main | Lucky | Lucky |
| Alt 1 | AS_6 | Americana | AS_6 | AS_6 | Whitewater | AS_6 |
| Alt 2 | Whitewater | Lucky | Whitewater | Whitewater | Main | Americana |
| Alt 3 | Americana | AS_6 | Americana | Lucky | Americana | Whitewater |

| **Composite Duplicate Schedule[3]** | |
|---|---|
| Plan | AS_6 |
| Alt 1 | Americana |
| Alt 2 | Lucky |
| Alt 3 | Whitewater |

| **Composite Field Blank Schedule** | |
|---|---|
| Plan | Main |
| Alt 1 | Whitewater |
| Alt 2 | Lucky |
| Alt 3 | AS_6 |

| **Equipment Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2021, for WY22 | |
| Plan | Main |
| Alt 1 | Whitewater |
| Alt 2 | Lucky |
| Alt 3 | Americana |

| **Rinsate Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2021, for WY22 | |
| Plan | Main |
| Alt 1 | Whitewater |
| Alt 2 | AS_6 |
| Alt 3 | Americana |

Notes:

[1] Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.

[2] The first site listed is the planned QC site. The next three sites are the alternate sites and are prioritized in the order listed.

[3] The composite sample duplicate will be collected at the earliest opportunity and is contingent upon sample volumes.

[4] Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.

## Phase I QC Sample[1,2] Schedule for WY23

| Site Name | Assigned # |
|---|---|
| Lucky | 1 |
| Whitewater | 2 |
| Main | 3 |
| Americana | 4 |
| AS_6 | 5 |

| **Wet Grab Sample Schedule** | | | | | | |
|---|---|---|---|---|---|---|
| | Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 |
| Plan | Lucky | Main | AS_6 | Lucky | Lucky | Main |
| Alt 1 | Americana | Lucky | Whitewater | AS_6 | Main | AS_6 |
| Alt 2 | Whitewater | AS_6 | Main | Whitewater | AS_6 | Lucky |
| Alt 3 | AS_6 | Americana | Lucky | Main | Whitewater | Whitewater |

| **Composite Duplicate Schedule[3]** | |
|---|---|
| Plan | Whitewater |
| Alt 1 | Main |
| Alt 2 | AS_6 |
| Alt 3 | Americana |

| **Composite Field Blank Schedule** | |
|---|---|
| Plan | AS_6 |
| Alt 1 | Main |
| Alt 2 | Lucky |
| Alt 3 | Americana |

| **Equipment Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2022, for WY23 | |
| Plan | AS_6 |
| Alt 1 | Americana |
| Alt 2 | Main |
| Alt 3 | Lucky |

| **Rinsate Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2022, for WY23 | |
| Plan | AS_6 |
| Alt 1 | Lucky |
| Alt 2 | Americana |
| Alt 3 | Main |

Notes:

[1] Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.

[2] The first site listed is the planned QC site. The next three sites are the alternate sites and are prioritized in the order listed.

[3] The composite sample duplicate will be collected at the earliest opportunity and is contingent upon sample volumes.

[4] Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.

## Phase I QC Sample[1,2] Schedule for WY24

| Site Name | Assigned # |
|---|---|
| Lucky | 1 |
| Whitewater | 2 |
| Main | 3 |
| Americana | 4 |
| AS_6 | 5 |

| **Wet Grab Sample Schedule** | | | | | | |
|---|---|---|---|---|---|---|
| | Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 |
| Plan | AS_6 | Americana | Lucky | Main | Whitewater | Main |
| Alt 1 | Lucky | AS_6 | Main | Whitewater | Main | Americana |
| Alt 2 | Americana | Whitewater | Whitewater | Lucky | AS_6 | Lucky |
| Alt 3 | Main | Main | Americana | AS_6 | Americana | AS_6 |

| **Composite Duplicate Schedule[3]** | |
|---|---|
| Plan | Americana |
| Alt 1 | Main |
| Alt 2 | Whitewater |
| Alt 3 | Lucky |

| **Composite Field Blank Schedule** | |
|---|---|
| Plan | Lucky |
| Alt 1 | AS_6 |
| Alt 2 | Americana |
| Alt 3 | Main |

| **Equipment Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2023, for WY24 | |
| Plan | Main |
| Alt 1 | Whitewater |
| Alt 2 | AS_6 |
| Alt 3 | Americana |

| **Rinsate Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2023, for WY24 | |
| Plan | Americana |
| Alt 1 | Whitewater |
| Alt 2 | AS_6 |
| Alt 3 | Main |

Notes:

[1] Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.

[2] The first site listed is the planned QC site. The next three sites are the alternate sites and are prioritized in the order listed.

[3] The composite sample duplicate will be collected at the earliest opportunity and is contingent upon sample volumes.

[4] Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.

## Phase I QC Sample[1,2] Schedule for WY25

| Site Name | Assigned # |
|---|---|
| Lucky | 1 |
| Whitewater | 2 |
| Main | 3 |
| Americana | 4 |
| AS_6 | 5 |

| **Wet Grab Sample Schedule** | | | | | | |
|---|---|---|---|---|---|---|
| | Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 |
| Plan | Americana | AS_6 | Whitewater | Main | AS_6 | AS_6 |
| Alt 1 | Main | Main | Main | Lucky | Whitewater | Americana |
| Alt 2 | AS_6 | Americana | Lucky | Whitewater | Lucky | Lucky |
| Alt 3 | Whitewater | Whitewater | Americana | Americana | Main | Whitewater |

| **Composite Duplicate Schedule[3]** | |
|---|---|
| Plan | Lucky |
| Alt 1 | Whitewater |
| Alt 2 | Americana |
| Alt 3 | AS_6 |

| **Composite Field Blank Schedule** | |
|---|---|
| Plan | AS_6 |
| Alt 1 | Main |
| Alt 2 | Americana |
| Alt 3 | Lucky |

| **Equipment Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2024, for WY25 | |
| Plan | AS_6 |
| Alt 1 | Lucky |
| Alt 2 | Americana |
| Alt 3 | Whitewater |

| **Rinsate Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2024, for WY25 | |
| Plan | Americana |
| Alt 1 | Lucky |
| Alt 2 | Main |
| Alt 3 | Whitewater |

Notes:

[1] Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.

[2] The first site listed is the planned QC site. The next three sites are the alternate sites and are prioritized in the order listed.

[3] The composite sample duplicate will be collected at the earliest opportunity and is contingent upon sample volumes.

[4] Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.

## Phase I QC Sample[1,2] Schedule for WY26

| Site Name | Assigned # |
|---|---|
| Lucky | 1 |
| Whitewater | 2 |
| Main | 3 |
| Americana | 4 |
| AS_6 | 5 |

| **Wet Grab Sample Schedule** | | | | | | |
|---|---|---|---|---|---|---|
| | Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 |
| Plan | Whitewater | Main | Lucky | Lucky | Main | AS_6 |
| Alt 1 | AS_6 | AS_6 | Americana | Americana | Lucky | Whitewater |
| Alt 2 | Americana | Lucky | AS_6 | Whitewater | Americana | Main |
| Alt 3 | Main | Americana | Main | Main | Whitewater | Lucky |

| **Composite Duplicate Schedule[3]** | |
|---|---|
| Plan | AS_6 |
| Alt 1 | Whitewater |
| Alt 2 | Lucky |
| Alt 3 | Main |

| **Composite Field Blank Schedule** | |
|---|---|
| Plan | Whitewater |
| Alt 1 | Main |
| Alt 2 | AS_6 |
| Alt 3 | Americana |

| **Equipment Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2025, for WY26 | |
| Plan | AS_6 |
| Alt 1 | Lucky |
| Alt 2 | Main |
| Alt 3 | Americana |

| **Rinsate Blank Schedule[4]** | |
|---|---|
| Collect in Fall 2025, for WY26 | |
| Plan | Lucky |
| Alt 1 | Whitewater |
| Alt 2 | Americana |
| Alt 3 | Main |

Notes:

[1] Grab QC samples will be analyzed for grab sample constituents. Composite QC samples will be analyzed for composite sample constituents.

[2] The first site listed is the planned QC site. The next three sites are the alternate sites and are prioritized in the order listed.

[3] The composite sample duplicate will be collected at the earliest opportunity and is contingent upon sample volumes.

[4] Blanks will be collected during monitoring station maintenance events and will be analyzed for composite sampling constituents.

# 2025 Attachment K - Ada County Drainage District No. 3 SWMP

# Ada County Drainage District No. 3

# Stormwater Management Plan

# NPDES Permit #IDS-027561

---

OCTOBER 2022

# TABLE OF CONTENTS


ACRONYMS ..... iv

INTRODUCTION ..... 1

1. APPLICABILITY ..... 1
2. LIMITATIONS AND CONDITIONS ..... 2
   - 2.1 Compliance with Water Quality Standards ..... 2
   - 2.2-2.4 Snow Disposal to Receiving Waters; Stormwater Discharges Associated with Industrial or Construction Activity; Non-Stormwater Discharges ..... 2
   - 2.5 Permittee Responsibilities ..... 2
3. STORMWATER MANAGEMENT PROGRAM CONTROL MEASURES ..... 5
   - 3.1 Public Education and Outreach on Stormwater Impacts ..... 5
     - 3.1.1 Compliance Dates ..... 6
   - 3.2 Illicit Discharge Detection and Elimination ..... 6
     - 3.2.1 Compliance Dates ..... 7
     - 3.2.2 MS4 Map and Outfall Inventory. ..... 7
     - 3.2.3 Ordinance and/or Other Regulatory Mechanism ..... 7
     - 3.2.4 Illicit Discharge Complaint Report and Response Program ..... 8
     - 3.2.5 Dry Weather Outfall Screening Program. ..... 8
     - 3.2.6 Follow-Up ..... 9
     - 3.2.7 Prevention and Response to Spills to the MS4 ..... 9
     - 3.2.8 Proper Disposal of Used Oil and Toxic Materials ..... 9
     - 3.2.9 Illicit Discharge Detection and Elimination Training of Staff. ..... 10
   - 3.3 Construction Site Stormwater Runoff Control ..... 10
     - 3.3.1 Compliance Dates ..... 10
     - 3.3.2 Ordinance and/or Regulatory Mechanism ..... 10
     - 3.3.3 Construction Site Runoff Control Specifications ..... 11
     - 3.3.4 Preconstruction Site Plan Review ..... 11
     - 3.3.5 Construction Site Inspection and Enforcement ..... 12
     - 3.3.6 Enforcement Response Policy for Construction Site Runoff Control ..... 12
     - 3.3.7 Construction Runoff Control Training for Staff ..... 12
   - 3.4 Post-Construction Stormwater Management for New Development and Redevelopment ..... 13
     - 3.4.1 Compliance Dates ..... 13
     - 3.4.2 Ordinance and/or Regulatory Mechanism ..... 13
     - 3.4.3 Permanent Stormwater Controls Specifications. ..... 14
     - 3.4.4. Permanent Stormwater Controls Plan Review and Approval. ..... 14
     - 3.4.5. Permanent Stormwater Controls Inspection and Enforcement ..... 14
     - 3.4.6 Operation and Maintenance of Permanent Stormwater Controls. ..... 15
     - 3.4.7 Permanent Stormwater Controls Training for Staff ..... 15
   - 3.5 Stormwater Infrastructure and Street Management ..... 15

3.5.1. Compliance Date ..... 16
3.5.2 Inspection and Cleaning of Catch Basins and Inlets ..... 16
3.5.3 -3.5.5 Operation and Maintenance Procedures for Streets, Roads, Highways and Parking Lots; Inventory and Management of Street/Road Maintenance Materials, Street Road, Highway and Parking Lot Sweeping. ..... 17
3.5.6-3.5.8 Operation & Maintenance Procedures for Other Municipal Areas and Activities, Requirements for Pesticide, Herbicide, and Fertilizer Applications, and Stormwater Pollution Prevention Plans (SWPPPs) for Permittee Storage Facilities. ..... 17
3.5.9 Litter Control ..... 17
3.5.10 Stormwater Pollution Prevention/Good Housekeeping Training for Staff. ..... 17
3.6 Industrial and Commercial Stormwater Discharge Management ..... 17
3.6.1 Compliance Date ..... 18
3.6.2-3.6.3 Inventory of Industrial and Commercial Facilities/Activities; Inspection of Industrial and Commercial Facilities/Activities. ..... 18
4. SPECIAL CONDITIONS ..... 18
4.1 Temperature Monitoring ..... 18
5. REQUIRED RESPONSE TO EXCURSIONS ABOVE IDAHO WATER QUALITY STANDARDS. ..... 18
6. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS ..... 19
6.1 Compliance Evaluation ..... 19
6.2 Stormwater Monitoring and Evaluation Program. ..... 19
6.2.1 Wet Weather Stormwater Outfall Monitoring. ..... 19
6.2.2 Subwatershed Monitoring ..... 20
6.2.3-6.2.5 Effectiveness Evaluation of Structural, Non-Structural and/or Green Stormwater Infrastructure Controls; Representative Sampling; and Additional Monitoring. ..... 20
6.2.6-6.2.7 Quality Assurance Requirements; Analytical Methods ..... 20
6.3-6.5 Recordkeeping; Reporting Requirements; Addresses ..... 21
7. COMPLIANCE RESPONSIBILITIES ..... 21
8. GENERAL REQUIREMENTS ..... 22

## Appendices


A. Intergovernmental Agreements between NPDES Permittees
   1. Amended and Restated Intergovernmental Agreement for Roles and Responsibilities under the National Pollutant Discharge Elimination System Permit (NPDES Permit No. IDS-027561)
   2. Amended and Restated Operating Guidelines
B. Drainage District No. 3 MS4 Maps
   1. Maps 1 – 19
C. Operation and Maintenance System Plan and BMPs

## ACRONYMS

The following acronym list is provided as a comprehensive resource for those reading the Drainage District #3 Stormwater Management Plan.

| | |
|---|---|
| ACHD | Ada County Highway District |
| BMP | Best Management Practices |
| CWA | Clean Water Act |
| DD3 | Ada County Drainage District No. 3 |
| DWOS | Dry Weather Outfall Screening |
| EPA | Environmental Protection Agency |
| ERP | Enforcement Response Policy |
| IDEQ | Idaho Department of Environmental Quality |
| LID | Low Impact Development |
| MEP | Maximum Extent Practicable |
| MS4 | Municipal Separate Storm Sewer System |
| NPDES | National Pollutant Discharge Elimination System |
| SWMP | Stormwater Management Plan |
| SWPP | Stormwater Pollution Prevention Plan |

# INTRODUCTION

Ada County Drainage District No. 3's (DD3) Stormwater Management Program (SWMP) Document is a comprehensive program plan designed to reduce the discharge of pollutants from DD3's Municipal Separate Storm Sewer System (MS4) to the Maximum Extent Practicable (MEP). The goal of the program is to restore and protect the quality of the Boise River and its tributaries. The SWMP includes control measures, Best Management Practices (BMPs), storm water drainage system design, a current narrative physical description of the DD3's MS4, illustrative maps and graphics, citations to related ordinances, policies, and activities within DD3's jurisdiction, and engineering methods to control and minimize the discharge of pollutants from the MS4 system. DD3 adopted the original SWMP Document in January 2014. Pursuant to the issuance of DD3's October 1, 2021, National Pollutant Discharge Elimination System (NPDES) Permit No. IDS027561, this SWMP was updated and amended in October 2022.

## 1. APPLICABILITY

DD3 is authorized with other Boise metropolitan area jurisdictions to discharge storm water to the Boise River and its tributaries under the NPDES, in compliance with the Clean Water Act (CWA). In addition to DD3, the NPDES Permit No. IDS-027561 authorizes the following Permittees to discharge from MS4 outfalls: Ada County Highway District (ACHD), the city of Boise City, Garden City, Boise State University, and Idaho Transportation Department District #3 (collectively the Permittees). The latest NPDES permit (Permit) became effective on October 1, 2021, and includes MS4 program requirements to be implemented incrementally.

This program document describes the SWMP as prescribed by the Permit including: the

MS4 facilities and outfalls DD3 owns and operates, the control measures and program activities implemented to reduce the discharge of pollutants to the Boise River, related regulatory controls, and DD3's participation and cooperation with other Permittees to ensure compliance with the conditions of the Permit. DD3's roles and responsibilities under the Permit have been established in an Intergovernmental Agreement between the Permittees (Appendix A).

## 2. LIMITATIONS AND CONDITIONS

### 2.1 Compliance with Water Quality Standards

It is presumed that should DD3 and the other Permittees comply with the terms and conditions of this Permit, they are not causing or contributing to an excursion above the appliable Idaho Water Quality Standards.

### 2.2-2.4 Snow Disposal to Receiving Waters; Stormwater Discharges Associated with Industrial or Construction Activity; Non-Stormwater Discharges

DD3 does not engage in snow plowing or snow removal within its district boundary. ACHD, or private entities, conducts all snow plowing within DD3's boundary. Likewise, DD3 does not control or operate any industrial activity within its boundary. All construction activity within DD3's boundary is under Boise City's jurisdiction and is governed by a drainage agreement with DD3, if applicable. DD3 takes all appropriate measures to prohibit non-stormwater discharge from the MS4, except where such discharges satisfy one of the conditions allowable in Part 2.4

### 2.5 Permittee Responsibilities

DD3 was established in the early 1920s through the statutory process prescribed in Chapter 29, Title 42, Idaho Code, and by court order. DD3 is governed by three appointed Commissioners, a part-time water supervisor (DD3 Supervisor), third party consulting engineer, and outside legal counsel. DD3 does not own or occupy any physical facilities for its

administrative functions. DD3's function is to operate and maintain six drains serving the Southeast Boise area and portions of what is referred to as the First Bench. When most of Ada County was farmland, DD3 drained irrigated lands and helped remove irrigation runoff water. These six drains now provide drainage for the remaining irrigated lands, including discharge from several irrigation canals and storm water (as well as sprinkler drainage) from the commercial and residential developments throughout southeast Boise. These six drains drain into 4 outfalls as defined by the Permit. The six drains inter tie with several ACHD facilities and Boise City facilities. DD3 also maintains two pumps in the Apple Street / Bergeson Street area.

Except for the DD3 facilities, all other MS4 structures, facilities, and outfalls draining public streets and roadways within the DD3 boundary are owned and operated by ACHD. ACHD is responsible for management, maintenance, and monitoring of the MS4 as it relates to streets and roadways; DD3 is responsible for limiting the discharge of pollutants to the portion of the MS4 within DD3's boundaries and involving its six drains. The SWMP control measures are designed to accomplish this goal to the MEP. As noted in the Introduction, an Intergovernmental Agreement and Operating Guidelines (Appendix A) exists with ACHD and other Permittees to establish the roles and responsibilities of each entity under the Permit.

DD3, through its Supervisor, District Engineer (Quadrant Consulting), and through a contract with MSE (Millennium Science and Engineering), prepared a Book of Maps, which among other things identifies the location of the DD3 drains and discharges of those drains to either ACHD facilities, the Boise River, or irrigation facilities (See Appendix B). For those drains which are owned and operated by DD3, DD3 carries out regular inspections concerning their operation and discharges. Steps taken to evaluate discharges and other activities are described in the DD3 Operation and Maintenance System Plan and BMPs (Appendix C).

DD3 also has authority through the Intergovernmental Agreement to control pollutant discharges into and from its MS4. DD3 has the authority to prohibit discharge of pollutants to the MS4 by illicit connections and discharges to any of its drainage facilities primarily through recourse to civil proceedings and as generally authorized by Idaho Code § 42-2939 and any applicable drainage agreement. The function, powers, and authority are exercised by DD3, through its Board of Commissions, in the manner provided in the drainage district laws of the state. DD3 also has the vested power and authority to control the discharge to the MS4 of spills, dumping, or disposal of materials other than stormwater and irrigation runoff water as set forth above. DD3 has the authority to require compliance with conditions as granted by I.C. § 42-2939 as augmented by the intergovernmental agreement or drainage agreements. DD3 has the authority to carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with Permit conditions, including the prohibition of illicit discharges to the MS4.

DD3 has the power and authority to levy and make assessments upon lands within and benefitted by the drainage system constructed, maintained, and operated by DD3. Annually, DD3 makes an estimate of the costs of maintenance and operation of the drainage system and certifies the amount estimated upon the Ada County auditor. DD3 provides the total costs associated with SWMP implementation over the prior 12-month reporting period in each Annual Report.

BMPs are maintained by DD3 to protect and maintain the beneficial uses of the Boise River and to improve water quality to the extent practicable.

Pursuant to Part 2.5.5 of the Permit, the SWMP is available through DD3's publicly accessible website at: https://adacountydrainagedistrict3.org/ In addition this SWMP Document will be submitted with the Permit Renewal Application, pursuant to Part 2.5.5 of the Permit.

# 3. STORMWATER MANAGEMENT PROGRAM CONTROL MEASURES

This section describes the six minimum control measures that must be accomplished by DD3's SWMP Document according to Part 3 of the Permit. The six minimum control measures are:

1. Public Education and Outreach on Stormwater Impacts;
2. Illicit Discharge Detection and Elimination;
3. Construction Site Stormwater Runoff Control;
4. Post-Construction Stormwater Management for New Development and Redevelopment;
5. Stormwater Infrastructure and Street Management; and
6. Industrial and Commercial Stormwater Discharge Management.

For each required control measure for which DD3 is responsible, a description of existing activities that meet Permit requirements is provided as well as a schedule of implementation to be completed.

## 3.1 Public Education and Outreach on Stormwater Impacts

DD3 works with fellow Permittees to implement the requirements of the Permit regarding education, outreach, and public involvement. The Intergovernmental Agreement designates Boise City as the lead agency responsible for the Public Education Program. To assist with program support, DD3 commits funding for its share of the annual cost of the program administration and public education, which is determined during the annual budget meeting held every January.

Working together under the name Partners for Clean Water, the Permittees have developed a stormwater website to provide the general public and business members of the community with information regarding stormwater management, educational and volunteer opportunities, and to review the actions and activities completed annually by the Permittees to limit the discharge of pollutants discharged to the Boise River and its tributaries. This website can be found at: http://www.partnersforcleanwater.org/.

DD3 along with the other Permittees use the information gathered from the Partners for Clean Water programing to assess the understanding of the educational materials and messaging to evaluate adoption of appropriate behaviors by the general public and business members. Utilizing the Partners for Clean Water program allows DD3 and the other Permittees to track and maintain records of their education, outreach, and public involvement.

To complement the Partners for Clean Water education and outreach program, DD3 also maintains its publicly assessable website which provides the SWMP, implementation strategies, points of contact, and educational materials. The website also contains phone numbers and other information to report illicit discharges and other information. DD3's website also provides information regarding policies and procedures for construction projects located in or around DD3's facilities. In addition, the website provides applicable, public notice requirements for items which DD3 solicits input from the public. A public review and comment period of DD3's 2022 Stormwater Management Plan document has been provided. The website can be found at: http://www.adacountydrainagedistrict3.org/

#### 3.1.1 Compliance Dates

| Permit Requirement | Due Date |
|---|---|
| Must fully implement all required components described in Parts 3.1.2-3.1.8. | April 3, 2026 |

## 3.2 Illicit Discharge Detection and Elimination

An illicit discharge is any discharge that is not composed entirely of stormwater. Illicit discharges are prohibited in DD3's boundary by virtue of Boise City ordinance, and any illicit discharges or activities with the potential for illicit discharges are addressed accordingly and prohibited. In addition to routine stormwater inspections, illicit discharge surveillance is conducted by the DD3 supervisor while traveling along the drainage canals.

### 3.2.1 Compliance Dates

| Permit Requirement | Due Date |
|---|---|
| Submit an electronic GIS version of the MS4 map and Outfall inventory to IDEQ. | April 3, 2026 |
| Update existing illicit discharge management program to include the required components described in Parts 3.2.2 through 3.2.9 | April 3, 2026 |

### 3.2.2 MS4 Map and Outfall Inventory.

DD3 maintains a map of its MS4 facility and all associated outfall locations under its operation and control. In addition, DD3 maintains an outfall and interconnection inventory to accompany the MS4 maps. This inventory identifies each outfall and interconnection discharging from DD3's MS4. The location of the outfall is recorded by latitude and longitude and physical condition. The MS4 map and outfall inventory contains the requirements as specified in Part 3.2.2 of the Permit. This inventory allows, DD3 to track its outfall inspections, dry weather screenings, maintenance, and other activities required by the Permit. An electronic GIS version of the MS4 map, and the outfall inventory is currently being developed by DD3 and will be available on DD3's publicly accessible website when developed.

### 3.2.3 Ordinance and/or Other Regulatory Mechanism

DD3 has the authority to prohibit non-stormwater discharges to the MS4 through inspection activities for those projects under an approved drainage agreement. DD3 relies upon those certain manuals and standards adopted by either ACHD or Boise City as it relates to regulation and enforcement of non-stormwater discharges into the MS4. Unless a development is covered under a drainage agreement with DD3, DD3 lacks legal authority to enforce certain standards and requirements. Under standard drainage agreements, DD3 incorporates the appropriate Boise City and/or ACHD standards. In addition, DD3 has implemented an

enforcement procedure and action plan, which includes a written policy of enforcement escalation procedures for recalcitrant or repeat offenders as included in its Operation and Maintenance Plan and BMPs.

### 3.2.4 Illicit Discharge Complaint Report and Response Program.

In cooperation with the other Permittees, DD3 participates in the Stormwater Pollution Prevention Hotline ("Hotline") program that was established to allow citizens to call in illicit discharges or spills to the MS4 in the greater Boise area. The Hotline number, (208) 395-8888, is provided on stormwater educational handouts, can be reached via an operator or Ada County Dispatch, and is also provided on the websites for Boise, ACHD, Garden City, and the IDEQ. DD3 staff may also receive complaints or reports of illicit discharges. Additionally, during stormwater inspections, the DD3 Supervisor encourages contact with DD3 if any illicit discharges, spills, or other conditions which may represent a pollutant source are observed. DD3 informs ACHD or Boise City of all complaints or reports of illicit discharges. DD3 can be reached directly at (208) 602-1713.

At the end of each year, a report is generated listing all illicit discharge investigations, corrective actions taken, and the location of the incident. Using this data, DD3 may identify priority areas requiring increased surveillance and/or inspections.

### 3.2.5 Dry Weather Outfall Screening Program.

ACHD has implemented a Dry Weather Outfall Screening (DWOS) Plan. The DWOS Plan provides guidance for field reconnaissance activities, monitoring, and recordkeeping efforts performed by ACHD. The DWOS Plan outlines how chemical and microbiological field screening analysis will be conducted. DD3, through ACHD, conducts visual dry weather screening of at least 20% of their total outfalls per year. Such screening occurs within June 1 and September 30 timeframe. ACHD keeps a detailed record of its dry weather screening

program activities, and the summary of these results are provided in the Annual Report each year.

### 3.2.6 Follow-Up

Within 30 days of detection, ACHD or DD3 investigate reoccurring illicit discharges identified as a result of complaints or by the dry weather screening investigations and sampling. DD3 and ACHD take necessary action to attempt to eliminate the source of an ongoing illicit discharge within sixty (60) days of its detection.

### 3.2.7 Prevention and Response to Spills to the MS4

DD3 relies on ACHD and Boise City to provide guidance in appropriately and safely responding to hazardous and non-hazardous spills. Illicit discharge and spill training for inspectors, field staff, and code enforcement officers is to be provided annually through ACHD and Boise City. If the spill is a known non-hazardous or non-toxic substance, DD3 takes steps to prevent the spill from entering the MS4 using absorbent spill tubes and mats, floor dry, and any other appropriate means. The agency responsible for spill cleanup will be notified immediately. If the spill is an unknown material or hazardous material, DD3 will immediately contact 911 and other responsible agencies to report the spill. DD3 will use the USDOT Emergency Response Guidebook to effectively identify hazards to adequately report spill conditions to hazardous spill responders. The Ada County Hazardous Materials/Radiological Incident Contingency Plan is the cooperative agreement that identifies the roles and responsibilities for hazardous spill response in Ada County.

### 3.2.8 Proper Disposal of Used Oil and Toxic Materials

DD3 coordinates with appropriate local entities to educate its employees and members of the public of the proper management, disposal, or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes.

### 3.2.9 Illicit Discharge Detection and Elimination Training of Staff.

DD3 ensures that any construction inspectors, maintenance field staff, and operators are sufficiently trained to respond to reports of illicit discharges. Within the first six (6) months of employment, DD3 provides orientation and training for new staff working on illicit discharge detection and elimination issues. At least once a year the DD3 supervisor and DD3 engineer attends relevant and appropriate training through in-person or online courses. DD3 staff attends and participates in stormwater management training events provided by Boise City, IDEQ, and EPA when offered locally and as appropriate.

## 3.3 Construction Site Stormwater Runoff Control

Construction site runoff is primarily the responsibility of either ACHD or Boise City as all construction occurring on or near DD3's MS4 is within the jurisdiction of either authority. When a development is planned near or adjacent to DD3's MS4 drainage facilities, DD3 requires the developer to enter into a drainage agreement with DD3 outlining the requirements for construction as it relates to relocation or disturbance of DD3's drainage facilities. DD3 utilizes these drainage agreements with developers to reduce discharge of pollutants from public and private construction activity occurring in or around its MS4.

### 3.3.1 Compliance Dates

| **Permit Requirement** | **Due Date** |
|---|---|
| Must ensure that existing construction site runoff control requirements are updated. | April 3, 2026 |
| Maintain and implement a written escalating enforcement response policy (ERP). | April 3, 2026 |

### 3.3.2 Ordinance and/or Regulatory Mechanism

Through Boise City and ACHD code requirements, new development and redevelopment in the DD3 boundaries are required to be designed to manage storm water runoff and include

permanent controls to protect water quality and restrict discharges to surface waters of the MS4. In general, the rate of storm water runoff from any proposed land development is not permitted to exceed the runoff rate prior to the development regardless of the storm event evaluated. DD3 through its drainage agreements with developers, requires erosion controls, sediment controls, and waste management controls to be used and maintained at the construction project site. Boise City requires construction site operators to maintain effective controls to reduce pollutants in stormwater discharges to the MS4 from construction sites. DD3 also conducts onsite inspections on development projects in which a drainage agreement has been executed between the developer and DD3. Boise City must require the developer or project site operators to obtain NPDES permit coverage under the current version of the Idaho CGP.

### 3.3.3 Construction Site Runoff Control Specifications

ACHD and Boise City maintain written specifications that address the proper installation and maintenance of erosion, sediment, and waste material management controls during all phases of construction activity occurring in their jurisdiction. The requirements of these construction site runoff control specifications consist of the requirements in Part 3.3.3.1 through 3.3.3.3.

### 3.3.4 Preconstruction Site Plan Review

ACHD and Boise City review and approve preconstruction site plans, as applicable within their jurisdiction and the DD3 boundary. These procedures include consideration of the site's potential water quality impacts and must demonstrate compliance with the regulatory mechanisms required by Part 3.1.2 of the Permit. In circumstances where a drainage agreement is required with the developer, DD3 performs preconstruction inspections to ensure that the site plan or Stormwater Pollution Prevention Plan (SWPPP) contains site-specific measures that meet the required specifications.

### 3.3.5 Construction Site Inspection and Enforcement

ACHD, Boise City, and DD3, when applicable, inspect construction sites in their jurisdiction to ensure compliance with the applicable requirements of Part 3.3.5. ACHD, Boise City and DD3, when applicable, will summarize the nature and number of site inspections, follow-up actions, and any subsequent enforcement actions conducted during the relevant reporting period in its Annual Report. All construction site inspections conducted by the Permittee having jurisdiction, will included all those requirements specified in Part 3.3.5.1 through 3.3.5.6

### 3.3.6 Enforcement Response Policy for Construction Site Runoff Control

ACHD, Boise City, and DD3, as applicable, within each agency's jurisdiction, maintains a written escalating enforcement response policy (ERP). This ERP for construction site runoff control will be submitted with the Permit Renewal Application. The applicable ERP contains the response to violations with appropriate educational and enforcement, and the requirements of Part 3.3.6.1 and 3.3.6.2. In the event the DD3 Supervisor observes a problem at a construction site, the DD3 Supervisor will advise and notify either ACHD or Boise City.

### 3.3.7 Construction Runoff Control Training for Staff

DD3 works together with all Permittees as a member of Partners for Clean Water to provide stormwater management education and training opportunities to regional developers, staff, and appropriate audiences. Boise City is the lead agency for public education and outreach. DD3 helps by providing funding and planning support for program activities. Among the various outreach activities are annual training conferences regarding permanent stormwater controls and LID techniques. In addition to Boise City's outreach program, DD3 uses the drainage design reviews, onsite inspections, and distributes educational materials to interact with and educate

persons on the proper management of stormwater runoff and maintenance of permanent controls on construction sites.

DD3 staff and counsel attend and participate in stormwater management training events provided by Boise City, IDEQ, and EPA when offered locally. The training curriculum typically covers stormwater design, drainage plan review, and inspection procedures to determine the adequacy of stormwater management practices and treatment controls at new and existing DD3 developments.

## 3.4 Post-Construction Stormwater Management for New Development and Redevelopment

ACHD and Boise City implement and enforce a program to control stormwater runoff from new development and redevelopment projects within their respective jurisdictions. Any new development and redevelopment within the jurisdiction of DD3 is governed by Boise City Ordinance concerning management of stormwater runoff. DD3 typically participates in the land use review process through providing comment to Boise City.

### 3.4.1 Compliance Dates

| Permit Requirement | Due Date |
|---|---|
| Must update existing controls to impose the required Stormwater Management Plan control measure components in Parts 3.4.2 through 3.4.7. | April 3, 2026 |
| Submit current ordinance/regulatory mechanisms as part of the Permit Renewal Application. | April 3, 2026 |

### 3.4.2 Ordinance and/or Regulatory Mechanism

ACHD, Boise City, and DD3, based on jurisdiction, require the installation and long-term maintenance of permanent stormwater controls at new development and redevelopment project sites. Boise City maintains the Boise City Ordinance and regulatory mechanisms required by local and state law. The required stormwater controls are sufficient enough to retain onsite the

volume produced from a 24-hour, 95th percentile storm event or to attain a pollutant removal level greater than pollutant removal expected from onsite retention of runoff volume produced from a 24-hour, 95th percentile storm event. In addition, these controls are intended to comply with the requirements of Part 3.4.2.1 through 3.4.2.5.

### 3.4.3 Permanent Stormwater Controls Specifications.

The applicable agency, ACHD, Boise City, or DD3 have specified the permanent stormwater controls for project sites and defined appropriate controls for different types and/or sizes of site development activity. The applicable Permittee maintains, and updates, written specifications to address proper design, installation, and maintenance of required permanent stormwater controls. DD3 adopts those specifications implemented by Boise City and ACHD. These specifications are intended to comply with the criteria of Part 3.4.3.1. through 3.4.3.3.

### 3.4.4. Permanent Stormwater Controls Plan Review and Approval.

Boise City, and DD3 if applicable, review and approve preconstruction plans for permanent stormwater controls at new development and redevelopment sties from new development and redevelopment projects that result in land disturbance of 5,000 square feet or more, excluding individual one or two-family dwelling development or redevelopment sites and the infill or redevelopment of public pedestrian infrastructure projects. These plan reviews will be conducted by Boise City staff or DD3's consultant engineer to ensure they meet the necessary controls.

### 3.4.5. Permanent Stormwater Controls Inspection and Enforcement

Boise City and ACHD provide inspection programs that prioritize new development and redevelopment sites for inspections of permanent stormwater management controls. At the end of each Permit year, Boise City and ACHD will review and evaluate information and data received throughout the year concerning development, construction, and implementation

activities to determine compliance with Permit requirements. The information will also assist in the evaluation of the effectiveness of the DD3 programs and allocation of time and resources to assess whether changes to the program should be considered.

### 3.4.6 Operation and Maintenance of Permanent Stormwater Controls.

DD3 maintains a database of drainage agreements executed with developers, when necessitated by the type and location of the development. The drainage agreement includes the information related to permanent controls installed by the developer onsite as it relates to the DD3's MS4. The drainage agreements specify the developer is responsible for operation and maintenance of the MS4 system for the portion located on the development. Although permanent operation and maintenance responsibilities are the responsibility of the developer, DD3 continues to inspect these locations to ensure there is compliance with operation and maintenance requirements. If a drainage agreement does not exist with the developer due to the fact that DD3's MS4 is not impacted by the development, Boise City shall maintain such a database within DD3's boundaries for applicable projects.

### 3.4.7 Permanent Stormwater Controls Training for Staff

DD3 staff and counsel attend and participate in stormwater management training events provided by Boise City, IDEQ, and EPA when offered locally. The training curriculum typically covers stormwater design, drainage plan review, and inspection procedures to determine the adequacy of stormwater management practices and treatment controls at new and existing DD3 developments.

## 3.5 Stormwater Infrastructure and Street Management

The Intergovernmental Agreement identifies ACHD as the lead agency responsible for stormwater infrastructure and street management requirements under the Permit. DD3 manages

its MS4 infrastructure and facilities to reduce the discharge of pollutants. Management includes an inspection of permanent stormwater controls and structures performing any maintenance or cleaning tasks and implementing stormwater pollution prevention BMPS.

### 3.5.1. Compliance Date

| Permit Requirement | Due Date |
|---|---|
| ACHD stormwater infrastructure and street management program must include required SWMP control measure components. | April 3, 2026 |

### 3.5.2 Inspection and Cleaning of Catch Basins and Inlets

Major elements of the stormwater inspection of DD3 facilities include the following:

- Maintenance and condition of permanent stormwater control structures;
- Observation of drainage system design and cleanliness of impervious surfaces;
- Check for pollutant sources;
- Evaluate outdoor activities and stormwater BMPs that are implemented;
- Observe outdoor storage practices;
- Look for any non-stormwater discharges;
- Assess general compliance with stormwater regulations;
- Provide education and outreach through discussion and educational handouts; and
- Refer any enforcement actions to Boise City.

DD3 inspects all DD3's facilities at least once every two years, and during those inspections takes all necessary maintenance and cleaning action based on those inspections to ensure the catch basins and inlets continue to function as designed. Material removed from MS4 facilities are managed and disposed of according to Part 7.13. DD3 maintains an inspection and cleaning log which describes the inspection that occurred, the material that was removed/cleaned and the actions taken. All inspection reports and completed inspection forms are stored with the DD3 Supervisor. Each year, the number of stormwater inspections conducted, and any enforcement actions undertaken to ensure compliance are provided in the Annual Stormwater Report.

### 3.5.3 -3.5.5 Operation and Maintenance Procedures for Streets, Roads, Highways and Parking Lots; Inventory and Management of Street/Road Maintenance Materials, Street Road, Highway and Parking Lot Sweeping.

ACHD is responsible for operation and maintenance for the streets and roadways within DD3's boundary.

### 3.5.6-3.5.8 Operation & Maintenance Procedures for Other Municipal Areas and Activities, Requirements for Pesticide, Herbicide, and Fertilizer Applications, and Stormwater Pollution Prevention Plans (SWPPPs) for Permittee Storage Facilities.

DD3 does not have jurisdictional control of any municipal operation and maintenance activities within its boundary; this is the responsibility of Boise City. In addition, DD3 does not use or maintain any pesticides, herbicides, and fertilizers. DD3 does not own or maintain a material storage facility for its operations.

### 3.5.9 Litter Control

The Partners for Clean water work to implement solutions for litter and trash control. In addition, DD3 removes litter and trash from, in, and around its MS4 facilities whenever it sees such material present and during routine inspections.

### 3.5.10 Stormwater Pollution Prevention/Good Housekeeping Training for Staff.

DD3 staff and counsel attend and participate in stormwater infrastructure management and operation training events provided by Boise City, IDEQ, and EPA when offered locally. Such training is provided to new staff within six (6) months of employment. DD3 staff attend these training related to operation and maintenance of stormwater infrastructure at least every other year.

## 3.6 Industrial and Commercial Stormwater Discharge Management

Industrial and commercial operations within DD3's jurisdiction are observed for the

purpose of reducing the discharge of pollutants. Boise City having jurisdiction of the industrial and commercial operations within DD3's boundaries, provides educational and/or enforcement efforts to reduce the discharge of pollutants from those industrial and commercial locations which highly contribute to the receiving waters.

#### 3.6.1 Compliance Date

| Permit Requirement | Due Date |
|---|---|
| Ensure that industrial and commercial stormwater management programs include required SWMP control measures. | April 3, 2026 |

#### 3.6.2-3.6.3 Inventory of Industrial and Commercial Facilities/Activities; Inspection of Industrial and Commercial Facilities/Activities.

Boise City having jurisdiction over industrial and commercial facilities/activities within the DD3 boundaries, maintains an inventory of industrial and commercial facility/activity within DD3's boundary.

## 4. SPECIAL CONDITIONS

### 4.1 Temperature Monitoring

ACHD monitors the temperature in certain stormwater discharges from the MS4 facilities to the Boise River. DD3's outfalls will be monitored in accordance with ACHD methods and procedures for implementing this temperature monitoring requirement.

## 5. REQUIRED RESPONSE TO EXCURSIONS ABOVE IDAHO WATER QUALITY STANDARDS.

DD3 is presumed to be in compliance with applicable Idaho Water Quality Standards if it is in compliance with the terms and conditions of the Permit. If DD3 or IDEQ determines that the discharge from the MS4 causes or contributes to an excursion above the Idaho Water Quality Standards, then DD3 remains in compliance with the Permit as long as DD3 implements all applicable SWMP control measures required and complies with the procedure of Parts 5.1-5.6.

# 6. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

The Intergovernmental Agreement designates ACHD as the lead agency responsible for the implementation of the MS4 monitoring program. To assist with program support, DD3 commits funding for its share of the annual cost of the monitoring program, which is determined during the annual budget meeting held every January.

## 6.1 Compliance Evaluation

Once per year, ACHD evaluates its annual monitoring with the requirements of the Permit to ensure compliance. DD3 coordinates with ACHD to ensure progress toward implementation of SWMP control measures are occurring and that if any instances of improvement are identified in ACHD's monitoring, DD3 can respond accordingly. This yearly self-evaluation is documented through the Annual Report format.

## 6.2 Stormwater Monitoring and Evaluation Program.

Pursuant to the Intergovernmental Agreement, ACHD is responsible for conducting the wet weather monitoring and evaluation program. Through this wet weather monitoring and evaluation program, DD3 is able to evaluate the overall effectiveness of selected stormwater management practices. ACHD's program is intended to meet the quality assurance (QA) objectives in Part 6.2.6.

### 6.2.1 Wet Weather Stormwater Outfall Monitoring.

ACHD conducts wet weather stormwater outfall monitoring according to its updated Storm Water Outfall Monitoring Plan dated 2022. This updated Stormwater Outfall Monitoring Plan will be submitted as part of the Year 1 Annual Report required by Part 6.4.2. ACHD provides a report summarizing all data collected for the Permittees during the permit term as required by Part. 6.4.3.

### 6.2.2 Subwatershed Monitoring

ACHD continues to conduct monitoring in the Americana Subwatershed to better define wet weather and dry weather flow volumes, sources, and pollutant loads according to the Americana Subwatershed Monitoring Plan as updated December 28, 2020. ACHD provides a report summarizing all data collected during the permit term as required by Part 6.2.2.

### 6.2.3-6.2.5 Effectiveness Evaluation of Structural, Non-Structural, and/or Green Stormwater Infrastructure Controls; Representative Sampling; and Additional Monitoring.

As specified in the Intergovernmental Agreement, ACHD coordinates with Boise City to conduct effectiveness evaluations of at least two different types of structural, non-structural and/or green infrastructure stormwater management controls at new development or redevelopment sites. The results of this effectiveness evaluation, and any recommendations for improved treatment performance is submitted to IDEQ pursuant to Part 6.4.5. In addition, to the extent ACHD conducts quantitative monitoring in the Permittees MS4 discharges above what is specified in the Permit, such additional monitoring is reported as required by Part 6.4.3.

### 6.2.6-6.2.7 Quality Assurance Requirements; Analytical Methods

ACHD, as the lead for all monitoring by the Permittees, maintains a Quality Assurance Project Plan (QAPP) for any monitoring or quantitative assessment activities conducted. The QAPP content is based off the requirements of Part 6.2.6. Sampling collection, preservation, and analysis is conducted according to procedures approved under 40 CFR Part 136.

### 6.3-6.5 Recordkeeping; Reporting Requirements; Addresses

DD3 retains records of all data and information in the development and implementation of the SWMP. All records are stored with DD3 for up to five years, or the term of the Permit, whichever is greater. All records are accessible by IDEQ or EPA upon request to DD3; the public may access records by filing a Public Records Request.

Each year, DD3 compiles its Annual Report for the IPDES required reporting periods of October 1 to September 30 of the preceding year (please note the first Permit year is October 1, 2021–September 30, 2022). The Annual Report is submitted to IDEQ via the E-Permitting Online System, using the Annual Report Format, no later than January 30 each year. DD3 makes each Annual Report available to the public through its publicly accessible website.

DD3's Annual Report follows the guidelines established in the Permit Part 6.4.2. The tracking of plan reviews, inspections, enforcement actions, and stormwater infrastructure maintenance provide data and statistics that are included in the report. The Annual Report is used in assessing DD3's compliance with Permit conditions and implementation schedule.

## 7. COMPLIANCE RESPONSIBILITIES

DD3 understands that it has an obligation to comply with all conditions of the Permit. DD3 acknowledges that any noncompliance constitutes a violation of the CWA and is grounds for civil and criminal penalties. DD3 shall report occurrences of noncompliance by telephone within 24 hours from the time DD3 becomes aware of the any circumstances outlined in Part 7.9. This notification must be followed by a written report within five (5) business days of the time DD3 became aware of the event. All other instances of noncompliance, not required to be reported within 24 hours shall be reported as part of each Annual Report.

When DD3 collects or removes any materials or pollutants from the MS4, they are disposed of and managed in a manner as to prevent such pollutants from entering into the waters of the U.S.

## 8. GENERAL REQUIREMENTS

DD3 understands that the Permittees must apply for and obtain a new permit prior to the expiration of this Permit and in no event later than April 3, 2026. DD3 understands that it and the other Permittees will be required to submit the contents of Part 8.2.1 in its renewal application.

DD3 is governed by a Board of Commissioners which consists of three (3) individuals who reside within DD3's boundary. For purposes of signatory authority and application and report submittals, the Board of Commissioners has authorized Ryan P. Armbruster and Abigail R. Germaine as Duly Authorized Representatives under Part 8.5.2.

# Appendix A

# Intergovernmental Agreements between NPDES Permittees

1. Amended and Restated Intergovernmental Agreement for Roles and Responsibilities under the National Pollutant Discharge Elimination System Permit (NPDES Permit No. IDS-0275612)
2. Amended and Restated Operating Guidelines

**AMENDED AND RESTATED INTERGOVERNMENTAL AGREEMENT FOR ROLES AND RESPONSIBILITIES UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES Permit #IDS-027561)**

THIS AMENDED AND RESTATED INTERGOVERNMENTAL AGREEMENT ("Amended and Restated Agreement") is entered into this 7th day of December, 2022, by and among the Ada County Highway District ("ACHD"), the city of Boise City ("Boise City"), city of Garden City ("Garden City"), Boise State University ("Boise State"), the Idaho Transportation Department, District #3 ("ITD"), and Ada County Drainage District No. 3 ("DD3"), individually a "Permittee" and collectively the "Permittees."

## I. RECITALS

WHEREAS, this Amended and Restated Agreement is made for the purpose of complying with the National Pollutant Discharge Elimination System, the provisions of the Clean Water Act, 33 U.S.C. § 151 et seq, as amended by the Water Quality Act of 1987, Public Law 100-4 ("Clean Water Act"), and the Rules Regulating the Idaho Pollutant Discharge Elimination System Program (IDAPA 58.01.25) ("Rules and Regulations"); and

WHEREAS, the Rules and Regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") Municipal Separate Storm Sewer System (MS4) permits which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, the Rules and Regulations are designed to require NPDES permits for discharges from MS4s on a system-wide or jurisdiction wide basis; and

WHEREAS, the Permittees received NPDES Permit #IDS027561, effective February 1, 2013, and administratively extended until October 1, 2021; and

WHEREAS, on July 1, 2021, the Idaho Department of Environmental Quality ("IDEQ"), with delegated authority from the U.S. Environmental Protection Agency ("EPA"), took over primacy for the NPDES MS4 permits in Idaho, and became responsible for the issuing of permits and assuring compliance with all permit requirements; and

WHEREAS, the Permittees received National Pollutant Discharge Elimination System ("NPDES") Permit IDS027561 (the "Permit"), effective October 1, 2021; and

WHEREAS, the Permit requires that the Permittees must maintain an intergovernmental agreement describing each organization's respective roles and responsibilities related to this permit; and

WHEREAS, on June 18, 2013, the Permittees entered into an Intergovernmental Agreement for Roles and Responsibilities under the NPDES Municipal Stormwater Permit outlining roles and responsibilities of the Permittees under the Permit; and

WHEREAS, pursuant to the Permit any previously signed intergovernmental agreement may be updated, as necessary, in accordance with the Permit. Any such agreement must be described in the Permittees' Stormwater Management Program ("SWMP") Document and a copy of the agreement between the Permittees must be available to IDEQ upon request; and

WHEREAS, the Permittees have updated the intergovernmental agreement based on the Permit effective October 1, 2021. This Amended and Restated Agreement shall replace and supersede all previous intergovernmental agreements between the Permittees.

NOW, THEREFORE, the foregoing sets forth the agreement by and among the named Permittees.

## II. AGREEMENT

### 1. PURPOSE OF AMENDED AND RESTATED AGREEMENT

The purpose of this Amended and Restated Agreement is to detail the duties, roles, and responsibilities of the Permittees with respect to compliance with the Rules and Regulations and the requirements set forth in Section 2.5.2, Joint Responsibility and Joint Agreements of the Permit. Each Permittee is individually responsible for Permit compliance related to portions of the MS4 owned or operated solely by that Permittee, or where the Permit requires a specific Permittee to take an action. Each Permittee is jointly responsible for Permit compliance as follows:

a. related to portions of the MS4 where operational or stormwater management control measures implementation authority has been transferred to one Permittee or another in accordance with this Amended and Restated Agreement between the Permittees; and

b. related to portions of the MS4 where Permittees jointly own or operate a portion of the MS4; and

c. related to the submission of reports or other documents required by Parts 3, 5, and 6 of the Permit; and

d. where the Permit requires the Permittees to take an action and a specific Permittee is not named; and

e. other areas as deemed necessary by the Permittees.

### 2. GENERAL PROVISIONS

a. ACHD, Boise City, Garden City, Boise State, ITD and DD3 are Permittees in the Permit as provided in 40 CFR 122.26.

b. Each Permittee will be responsible for complying with any and all Permit conditions relating to discharges from those parts of the MS4 that it operates and maintains.

c. The Permittees will utilize available monitoring and enforcement mechanisms, in full cooperation with other Permittees, to control the contribution of pollutants from one MS4 to another.

d. Each Permittee to this Amended and Restated Agreement shall assign at least one representative to the Permittee group.

## 3. STORM WATER MANAGEMENT PROGRAM ROLES AND RESPONSIBILITIES

The roles and responsibilities of each Permittee are as established in the Permit and this Amended and Restated Agreement.

## 4. APPORTIONMENT OF COSTS

A. Program Administration and Management

The Stormwater Management Program Control Measures shall be administered by ACHD as the lead agency. Program administration and management consists primarily of:

1. Preparing the agenda, minutes, and other documents related to the quarterly meetings and special meetings of the Permittees; and

2. Compiling and coordinating material to and from the Permittees for the filing of the annual report and Permit reapplication, as necessary, with IDEQ; and

3. Coordinating the various activities among the Permittees under the Permit.

The Permittees shall reimburse ACHD or the Permittee providing services described in this subsection 4.A. for their share of the program administration costs in the following amounts:

| | |
|---|---|
| ACHD: | 65.3% of the total program administration costs |
| Boise City: | 15.3% of the total program administration costs |
| Garden City: | 7.7% of the total program administration costs |
| Boise State: | 3.9% of the total program administration costs |
| ITD: | 3.9% of the total program administration costs |
| DD3: | 3.9% of the total program administration costs |

Program administration shall also include expenses incurred by any Permittee in the drafting, preparation, and completion of certain agreements or other documents specifically related to the collective Permittees' activities required by the Permit, by way of example, but not by way of limitation, this Amended and Restated Agreement. Such expenses shall be shared as stated in this Subsection 4.A. and processed through ACHD as set forth herein. Such expenses shall not include any activity related to any Permittee's own compliance requirements under the Permit.

B. Stormwater Monitoring and Evaluation Program

Monitoring and evaluation required by the Permit shall be conducted by ACHD or its contractor as the lead agency. The monitoring and evaluation program ("Stormwater Monitoring and Evaluation Program") consists primarily of:

1. For the first year of the Permit, preparing an updated Stormwater Outfall Monitoring Plan as part of the first annual report required by Part 6.4.2 of the Permit. The requirements, set forth in Part 6.2.1-6.2.7, for the Stormwater Outfall Monitoring Plan are described in the Permit, and include the monitoring protocol, sampling, testing, reporting, and other activity through a consultant arrangement between ACHD and its selected consultant.

2. Implementing the Stormwater Monitoring and Evaluation Program as approved and adopted by the Permittees.

3. Temperature monitoring in stormwater discharges from the MS4 to the Boise River including assessment units.

4. Wet weather stormwater outfall monitoring according to the Storm Water Outfall Monitoring Plan.

5. Instituting the Americana Subwatershed Monitoring Plan and data reporting requirements.

6. Effectiveness Evaluation of Structural, Non-Structural, and/or Green Stormwater Infrastructure Controls pursuant to Part 6.2.3 of the Permit.

The Permittees shall reimburse ACHD for their share of the Stormwater Monitoring and Evaluation Program costs in the following amounts:

| | |
|---|---|
| ACHD: | 65.3% of the total Stormwater Monitoring and Evaluation Program Cost |
| Boise City: | 15.3% of the total Stormwater Monitoring and Evaluation Program Cost |
| Garden City: | 7.7% of the total Stormwater Monitoring and Evaluation Program Cost |
| Boise State: | 3.9% of the total Stormwater Monitoring and Evaluation Program Cost |
| ITD: | 3.9% of the total Stormwater Monitoring and Evaluation Program Cost |
| DD3: | 3.9% of the total Stormwater Monitoring and Evaluation Program Cost |

C. Public Education, Outreach, and Involvement Program

Boise City shall be the lead agency for the Public Education, Outreach, and Involvement Program pursuant to this Amended and Restated Agreement. The Public Education, Outreach, and Involvement Program includes the development of an education outreach program as required by the Permit. The Public Education, Outreach, and Involvement Program consists primarily of:

1. Conducting public outreach, education, and public involvement as

described in the NPDES permit; and

2. Assessing the understanding of the relevant messages and adoption of appropriate behaviors by target audiences related to the Public Education, Outreach, and Involvement Program; and

3. Tracking and maintaining records of their education, outreach, and public involvement activities, including a descriptive summary of activities in the annual report; and

4. Once per year, training to local audiences on the requirements for construction operators pertaining to the required construction site controls imposed by the Permittees and training to local audiences on the requirements of permanent stormwater management controls imposed by the Permittees; and

5. Maintaining and updating the Permittees' Partners for Clean Water website found at: https://www.partnersforcleanwater.org/.

The Permittees shall reimburse Boise City for their share of the Public Education, Outreach, and Involvement Program costs in the following amounts:

| | |
|---|---|
| Boise City: | 65.3% of the total Program Cost |
| Garden City: | 15.3% of the total Program Cost |
| ACHD: | 7.7% of the total Program Cost |
| Boise State: | 3.9 % of the total Program Cost |
| ITD: | 3.9 % of the total Program Cost |
| DD3: | 3.9 % of the total Program Cost |

D. IPDES Stormwater Fee

Boise City is charged IPDES permit fees to support implementation of IPDES program initiatives at the Lander Street Water Renewal Facility and the West Boise Water Renewal Facility. Boise City has estimated the proportionate cost of this IPDES permit fee attributable to stormwater is 1.28% of the total IPDES permit fee. The Permittees have initially agreed to share this cost equally at 17% per Permittee. However, this allocation is subject to change by the Permittees and may be allocated similarly to the other costs discussed in this Section II.4. of the Amended and Restated Agreement. Should the Permittees unanimously agree on a different allocation of these IPDES permit fees, the Permittees shall agree to such amendment in writing.

E. Timely Payments

All amounts due and owing for the costs outlined in this Section II.4. shall be paid within forty-five (45) days of invoice date by each respective Permittee.

F. Annual Review

The allocated percentages of the Permittees' charge shall be reviewed upon an annual

basis and if necessary modified.

G. Operating Guidelines and Annual Budget

The Permittees have previously adopted a set of Operating Guidelines ("Guidelines") in July 2014. The Operating Guidelines have since been amended to reflect updates in process and procedure. A copy of the Amended and Restated Operating Guidelines are attached hereto as Addendum No. 1. The Guidelines address the process by which the annual budget is prepared, reviewed, and approved by the Permittees. In addition, the Guidelines also address the manner in which the Permittee meetings are conducted, and action is taken by the Permittees. The Guidelines may be amended as set forth therein and will be included in this Amended and Restated Agreement as a new addendum.

## 5. TERMINATION

Any Permittee under this Amended and Restated Agreement shall have the right to withdraw and terminate its responsibilities under this Amended and Restated Agreement by serving written notice upon all Permittees in the time and manner described herein. Such written notice shall be served upon all Permittees no later than the January meeting described in the Operating Guidelines, which meeting provides for the consideration of the budget for the following Permit Year. The written notice shall describe whether the withdrawal is in total for all activities set forth in this Amended and Restated Agreement or whether the withdrawal is limited to certain activities described in this Amended and Restated Agreement. The Permittee seeking withdrawal shall provide the specific reasons for withdrawal and provide proof that such withdrawal has been formally approved by the Permittee's governing body. If the withdrawal is not a total withdrawal, the Permittee shall remain responsible for its share of the allocated costs. In addition, the withdrawing Permittee shall provide the results of any activities or programs it acted as the lead agency on, including the preparation of any plans, reports, results, or record keeping, for inclusion in the Permittees' annual report. Such withdrawal shall be deemed effective the year following the service of the written notice upon the other Permittees.

Notwithstanding the right of a Permittee to withdraw from this Amended and Restated Agreement as described above, any responsibilities set out in the Permit with regard to the withdrawing Permittee shall not be affected by Permittee's withdrawal from this Amended and Restated Agreement.

Should any Permittee to this Amended and Restated Agreement seek to obtain a ruling from IDEQ that said Permittee is not an operator of an MS4 or that it is not subject to the Permit, such Permittee shall provide written notice to the other Permittees simultaneously with the filing of such request to IDEQ. The Permittee seeking such ruling shall provide the other Permittees with all documents filed with IDEQ and shall also provide the other Permittees of the decision or determination of IDEQ. Should the Permittee seeking withdrawal appeal the decision or determination of IDEQ or an appeal is filed by any other interested entity, the Permittee seeking such ruling shall provide the other Permittees with the documents related to said appeal and the decision or determination of the appellate body. Upon a final decision or determination of IDEQ or appellate body finding the Permittee is not required to participate in the Permit, the Permittee

shall be allowed to withdraw from this Amended and Restated Agreement effective the following year after such final decision or determination of IDEQ or an appellate body. The Permittee seeking such ruling shall be responsible for all costs set forth in this Amended and Restated Agreement prior to final withdrawal. Nothing herein shall prevent any other Permittee from participating in the IDEQ or appellate process concerning the request by the Permittee seeking the determination or decision from IDEQ.

In the event of a withdrawal by a Permittee or a final decision or determination by IDEQ or an appellate body, such Permittee's costs as set forth in this Amended and Restated Agreement shall be reallocated among the other Permittees as may be mutually agreed by those other Permittees.

## 6. MODIFICATION IN WRITING

This Amended and Restated Agreement may be modified or amended in writing and effective when executed by all Permittees.

## 7. ATTORNEY FEES

Should any Permittee find it necessary to employ an attorney for representation in any action seeking enforcement of any of the provisions of this Amended and Restated Agreement, or to protect its interest in any matter arising under this Amended and Restated Agreement, or to recover damages for the breach of this Amended and Restated Agreement, or to resolve any disagreement in interpretation of this Amended and Restated Agreement, the unsuccessful Permittee(s), in any final judgment entered therein, agrees to reimburse the prevailing party or parties for all reasonable costs, charges, and expenses, including attorneys' fees expended or incurred by the prevailing party or parties in connection therewith and in connection with any appeal, and the same may be included in such judgment.

## 8. NOTICES AND CONTACTS

Any and all notices required to be given by any of the Permittees hereto shall be in writing and deemed delivered when either: (i) delivered personally, or (ii) sent by fax to the other parties at the fax telephone number as set forth, or (iii) deposited in the United States Mail, certified, return receipt requested, postage prepaid, addressed to the other Permittees at the address as set forth, or such other fax telephone number or mailing address as may be provided by written notice of such change given to the others in the same manner as above provided.

For the purpose of providing contact information under this Amended and Restated Agreement and to provide notice as required, the following are the contacts and addresses of each representative designated by each Permittee:

Ada County Highway District:
Stormwater Quality Supervisor
Ada County Highway District
318 E. 37th Street
Garden City, ID 83714
Phone: 208-387-6255
Fax: 208-387-6391
Email: mlowe@achdidaho.org

City of Boise:
Water Quality Manager
City of Boise
P.O. Box 500
Boise, ID 83701-0500
Phone: 208-608-7178
Fax: 208-433-5650
Email: kharris@cityofboise.org

City of Garden City:
Environmental Manager
City of Garden City
207 E. 38th Street
Garden City, ID 83714
Phone: 208-472-2900
Fax: 208-3434026
Email: jpavelek@gardencity.idaho.org

Boise State University:
Environmental Health Compliance
Boise State University
1910 University Drive
Boise, ID 83725
Phone: 208-426-3906

Email: ehs@boisestate.edu

Idaho Transportation Department, District #3:
Environmental Planner, Senior
8150 Chinden Boulevard
Boise, ID 83714
Phone: 208-334-8300
Fax: 208-334-8917
Email: greg.vitley@itd.idaho.gov

Ada County Drainage District #3:
Counsel for Drainage District #3
Elam & Burke
P.O. Box 1539
Boise, ID 83701
Phone: 208-343-5454
Fax: 208-384-5844
Email: rpa@elamburke.com

## 9. ENTIRE AGREEMENT

Except as provided otherwise herein, this instrument and any attachments or addendums hereto constitute the entire agreement among the Permittees concerning the subject matter hereof.

(signatures on following page)

IN WITNESS WHEREOF, the Permittees hereto have caused this Amended and Restated Agreement to be duly executed as of the day and year first above written.

ADA COUNTY HIGHWAY DISTRICT

By: _____
President, ACHD Commission

Attest: ACHD Director

CITY OF BOISE CITY

By: _____
Lauren McLean, Mayor

Attest: City Clerk

CITY OF GARDEN CITY

By: _____
John Evans, Mayor

Attest: City Clerk

CITY OF GARDEN CITY, IDAHO SEAL

BOISE STATE UNIVERSITY

By: _____
Vice President, University Affairs

IDAHO TRANSPORTATION DEPARTMENT, DISTRICT #3

By: _____
J. Caleb Lakey, District Administrator

IN WITNESS WHEREOF, the Permittees hereto have caused this Amended and Restated Agreement to be duly executed as of the day and year first above written.

ADA COUNTY HIGHWAY DISTRICT

By: _____

President, ACHD Commission

_____

Attest: ACHD Director

CITY OF BOISE CITY

By: Lauren McLean

Lauren McLean, Mayor 11/29/2022

Lynda Lowry

_____

Attest: City Clerk Lynda Lowry 11/29/2022

CITY OF GARDEN CITY

By: _____

John Evans, Mayor

_____

Attest: City Clerk

BOISE STATE UNIVERSITY

By: _____

Vice President, University Affairs

IDAHO TRANSPORTATION DEPARTMENT, DISTRICT #3

By: _____

_____, District Administrator

IN WITNESS WHEREOF, the Permittees hereto have caused this Amended and Restated Agreement to be duly executed as of the day and year first above written.

ADA COUNTY HIGHWAY DISTRICT

By: _____

President, ACHD Commission

_____

Attest: ACHD Director

CITY OF BOISE CITY

By: _____

Lauren McLean, Mayor

_____

Attest: City Clerk

CITY OF GARDEN CITY

By: _____

John Evans, Mayor

_____

Attest: City Clerk

BOISE STATE UNIVERSITY

By: Alicia Estey

Alicia Estey

Vice President, University Affairs

IDAHO TRANSPORTATION DEPARTMENT, DISTRICT #3

By: _____

_____, District Administrator

ADA COUNTY DRAINAGE DISTRICT No. 3

By: _____
Steve Sweet, Chair

State of Idaho )
)ss
County of Ada )

On this 7th day of December, 2022, before me, Stacey L Spencer, a Notary Public in and for the state of Idaho, personally appeared Mary May and Bruce Wong, known or identified to me to be the President and Director of Ada county Highway District who executed this instrument, and acknowledged to me that Ada County Highway District executed the same.

STACEY L SPENCER NOTARY Comm. 62051 PUBLIC STATE OF IDAHO

_____
Notary Public for Idaho
Commission expires: August 13, 2025

State of Idaho )
)ss
County of Ada )

On this ___ day of _____, 2022, before me, _____, a Notary Public in and for the state of Idaho, personally appeared _____ and _____, known or identified to me to be the Mayor and City Clerk of City of Boise who executed this instrument, and acknowledged to me that City of Boise executed the same.

_____
Notary Public for Idaho
Commission expires: _____

ADA COUNTY DRAINAGE DISTRICT No. 3

By: _____
Steve Sweet, Chair

State of Idaho )
)ss
County of Ada )

On this ___ day of _____, 2022, before me, _____, a Notary Public in and for the state of Idaho, personally appeared _____ and _____, known or identified to me to be the President and Director of Ada county Highway District who executed this instrument, and acknowledged to me that Ada County Highway District executed the same.

_____
Notary Public for Idaho
Commission expires: _____

State of Idaho )
)ss
County of Ada )

On this 29th day of November, 2022, before me, Kimberly Moore, a Notary Public in and for the state of Idaho, personally appeared Lauren McLean and Lynda Lowry, known or identified to me to be the Mayor and City Clerk of City of Boise who executed this instrument, and acknowledged to me that City of Boise executed the same.

KIMBERLY MOORE
COMMISSION #20221533
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 03/30/2028

_____
Notary Public for Idaho
Commission expires: 3-30-2028

State of Idaho )
)ss
County of Ada )

On this 22nd day of November, 2022, before me, Susanna Smith, a Notary Public in and for the state of Idaho, personally appeared John G. Evans and Lisa M. Leiby, known or identified to me to be the Mayor and City Clerk of Garden City who executed this instrument, and acknowledged to me that Garden City executed the same.

SUSANNA SMITH
COMMISSION #20201858
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 05/26/2026

Notary Public for Idaho
Commission expires: 5-26-2026

State of Idaho )
)ss
County of Ada )

On this ___ day of _____, 2022, before me, _____, a Notary Public in and for the state of Idaho, personally appeared _____, known or identified to me to be the Vice President, University Affairs, of Boise State University, who executed this instrument, and acknowledged to me that Boise State University executed the same.

Notary Public for Idaho
Commission expires: _____

State of Idaho )
)ss
County of Ada )

On this 17th day of November, 2022, before me, Roger D. Edwards, a Notary Public in and for the state of Idaho, personally appeared J. Caleb Lakey, known or identified to me to be the District 3 Administrator, of Idaho Department of Transportation, who executed this instrument, and acknowledged to me that Idaho Department of Transportation executed the same.

ROGER D. EDWARDS
Comm. No. 45261
NOTARY PUBLIC
Expires: 08/31/2023
STATE OF IDAHO

Notary Public for Idaho
Commission expires: 8-31-2023

State of Idaho )
)ss
County of Ada )

On this ___ day of _____, 2022, before me, _____, a Notary Public in and for the state of Idaho, personally appeared _____ and _____ _____, known or identified to me to be the Mayor and City Clerk of Garden City who executed this instrument, and acknowledged to me that Garden City executed the same.

_____
Notary Public for Idaho
Commission expires: _____

State of Idaho )
)ss
County of Ada )

On this 16th day of November, 2022, before me, Alexander Feyen, a Notary Public in and for the state of Idaho, personally appeared Alicia Estey, known or identified to me to be the Vice President, University Affairs, of Boise State University, who executed this instrument, and acknowledged to me that Boise State University executed the same.

ALEXANDER FEYEN NOTARY PUBLIC STATE OF IDAHO Comm. No. 20203909 My Commission Expires 10/05/26

_____
Notary Public for Idaho
Commission expires: 10/05/2026

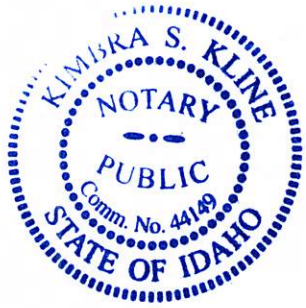
State of Idaho )
)ss
County of Ada )

On this ___ day of _____, 2022, before me, _____, a Notary Public in and for the state of Idaho, personally appeared _____, known or identified to me to be the _____, of Idaho Department of Transportation, who executed this instrument, and acknowledged to me that Idaho Department of Transportation executed the same.

_____
Notary Public for Idaho
Commission expires: _____

State of Idaho )
)ss
County of Ada )

On this 10th day of November, 2022, before me Kimbra S. Kline, a Notary Public in and for the state of Idaho, personally appeared Steve Sweet, known or identified to me to be the Chair of Ada County Drainage District # 3, who executed this instrument, and acknowledged to me that Ada County Drainage District #3 executed the same.




Kimbra S. Kline
Notary Public for Idaho
Commission expires: 3/31/2023

4878-3214-6717, v. 5

## AMENDED AND RESTATED OPERATING GUIDELINES

THESE AMENDED AND RESTATED OPERATING GUIDELINES ("Amended and Restated Guidelines") are adopted this 30 day of November, 2022, by the CITY OF BOISE CITY, hereinafter called BOISE CITY; ADA COUNTY HIGHWAY DISTRICT, hereinafter called ACHD; ADA COUNTY DRAINAGE DISTRICT NO. 3, hereinafter called DD3; IDAHO TRANSPORTATION DEPARTMENT, DISTRICT 3, hereinafter called ITD; BOISE STATE UNIVERSITY, hereinafter called BSU; and the CITY OF GARDEN CITY, hereinafter called GARDEN CITY; collectively the "Permittees."

WHEREAS, the National Pollutant Discharge Elimination System, the provisions of the Clean Water Act, 33 U.S.C. § 151 et seq, as amended by the Water Quality Act of 1987, Public Law 100-4 ("Clean Water Act"), and the Rules Regulating the Idaho Pollutant Discharge Elimination System Program (IDAPA 58.01.25) ("Rules and Regulations") all govern the regulations for applications and permits for stormwater discharges; and

WHEREAS, these Rules and Regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES"), which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, these Rules and Regulations are designed to require NPDES permits for discharges from Municipal Separate Storm Sewer Systems (MS4s) from a system-wide or jurisdiction-wide basis; and

WHEREAS, the Permittees received a NPDES Permit (Permit #IDS-02756-1) effective February 1, 2013, and administratively extended until October 1, 2021; and

WHEREAS, on July 1, 2021, the Idaho Department of Environmental Quality (IDEQ), with delegated authority from the U.S. Environmental Protection Agency ("EPA"), gained primacy and became responsible for issuing MS4 stormwater permits and assuring compliance with all permit requirements; and

WHEREAS, the Permittees received Idaho Pollutant Discharge Elimination System ("IPDES") Permit IDS027561 (the "Permit"), effective October 1, 2021;

WHEREAS, the Permit requires that the Permittees must maintain an intergovernmental agreement describing each organization's respective roles and responsibilities related to this permit;

WHEREAS, pursuant to the Permit, any previously signed intergovernmental agreement may be updated, as necessary, in accordance with this Permit. Any such agreement must be described in the Permittees' Stormwater Management Program ("SWMP") Document, and a copy of the agreement between the Permittees must be available to IDEQ upon request; and

WHEREAS, the Permittees entered into that certain *Intergovernmental Agreement for Roles and Responsibilities Under the NPDES Permit* ("Agreement"), dated June 26, 2013, which generally outlined the process by which the Permittees shall fund certain activities in compliance with the Permit;

WHEREAS, the Permittees previously entered into those certain Operating Guidelines dated October 17, 2006, which governed the Permittees' activities under a previous intergovernmental agreement dated October 21, 2001, based on the previous NPDES permit originally effective November 29, 2000.

WHEREAS, the Permittees have updated the intergovernmental agreement based on the Permit effective October 1, 2021, and this Amended and Restated Intergovernmental Agreement was executed on December 7, 2022; and

WHEREAS, the Permittees, as public agencies, all have varying procedures concerning the setting of those entities' budgets and the time frame for the approval of those budgets;

WHEREAS, the Permittees desire these Amended and Restated Guidelines (including certain budget procedures) to guide the Permittees through the activities in which all share in the cost and/or administration of the program and to coincide with the new amendments and revisions under the Amended and Restated Intergovernmental Agreement;

NOW, THEREFORE, the Permittees agree as follows:

Section 1. These Amended and Restated Guidelines hereby repeal, replace, and supersede any previous guidelines, including those 2006 guidelines as described herein.

Section 2. The Permittees concur with the following process for:

A. The annual budget of costs to be shared by the Permittees pursuant to the Permit and the Amended and Restated Intergovernmental Agreement; and

B. The approval of activities and expenses.

Section 3. Schedule and Process:

Each January of each year of the Permit, the lead Permittee entity for the activities to be shared by all of the Permittees, shall present at a scheduled Permittee meeting, a proposed budget outlining the costs for the upcoming year as well as providing a comparison for similar activities within the previous year.

The Permittees shall consider such budget, provide comment, and the budget shall be approved at the Permittee meeting held in April of each year, upon motion and approval by a majority of the Permittees present.

Section 4. Program Administration and Management:

These Amended and Restated Guidelines identify four (4) categories for which the Permittees have agreed to apportion costs for those activities, including Program Administration and Management. By adoption of these Amended and Restated Guidelines, the Permittees have determined that the Program Administration and Management category should include those activities for which the Permittees are apportioning costs for certain planning and Permit compliance not related to any individual Permittee compliance activity. Such activities include the Permit reapplication process and required Permit document preparation.

Permittees also agree to consider other subcategories for which apportionment of costs would be appropriate under the Permit and to process budget requests and approvals. Any additional subcategories shall require an amendment to these Amended and Restated Guidelines.

Section 5. Budget Revisions:

Throughout the Permit year, revisions to the approved budget to reallocate funds among categories and classifications or to reduce the approved budget may be considered by the Permittees. Such reduction or reallocation shall be reviewed and approved by the Permittees' representatives at a duly noticed Permittee meeting. No overall increase in the budget or additional funds shall be authorized unless approved by the Permittees, upon motion and approval by a majority of the Permittees present, and each Permittee has budget authority for such revisions.

Section 6. Permittee Budget Approval:

Nothing herein shall affect the process or authority of each Permittee to obtain from its governing body the necessary approval for the budget as required by each Permittee's governing laws, regulations, or policy and each Permittee's own activities for which it is responsible under the Permit.

Section 7. Operating Guidelines:

Generally, the Permittee meetings shall be managed in such a manner to achieve the objectives of the Permit and the NPDES program. For those items previously approved by way of the budget, the lead Permittee shall provide summary reports of such expenditures and activities at a regularly scheduled Permittee meeting. For expenditures not specifically approved by way of the budget, the lead Permittee shall obtain Permittee approval at a regularly scheduled Permittee meeting prior to such expenditure.

Permittee meetings will be conducted on an informal basis facilitated by the ACHD representative. The ACHD representative shall also be responsible for providing meeting notice to Permittees, taking and distributing minutes, providing an agenda, and, to the greatest extent possible, forwarding information to the Permittees for consideration at the meeting. Any action to be taken shall be accomplished by motion and vote. To the greatest extent possible, Roberts Rules of Order shall govern the voting process.

Section 8. Effect:

These Amended and Restated Guidelines have been adopted by the Permittees at the Permittee meeting dated November 30, 2022. Nothing herein shall be deemed to infringe upon any Permittee's legal authority concerning the expenditure of public funds.

Section 9. Amendment:

These Amended and Restated Guidelines may be amended in writing, upon at least ten (10) days written notice of such proposed amendment to each Permittee provided, however, said notice may be deemed waived by Permittee's written consent. Any amendment shall be approved by majority vote of the Permittees present at a meeting noticed for such purpose. Updated versions of these Amended and Restated Guidelines shall be included in the Amended and Restated Intergovernmental Agreement as an updated addendum to that document.

ADA COUNTY HIGHWAY DISTRICT

By: Monica Lowe
Its Permittee NPDES Representative

CITY OF BOISE CITY

By: _____
Its Permittee NPDES Representative

CITY OF GARDEN CITY

By: _____
Its Permittee NPDES Representative

BOISE STATE UNIVERSITY

By: _____
Its Permittee NPDES Representative

IDAHO TRANSPORTATION DEPARTMENT,
DISTRICT #3

By: _____
Its Permittee NPDES Representative

ADA COUNTY DRAINAGE DISTRICT No. 3

By: _____
Its Permittee NPDES Representative

4867-9330-4380, v. 1

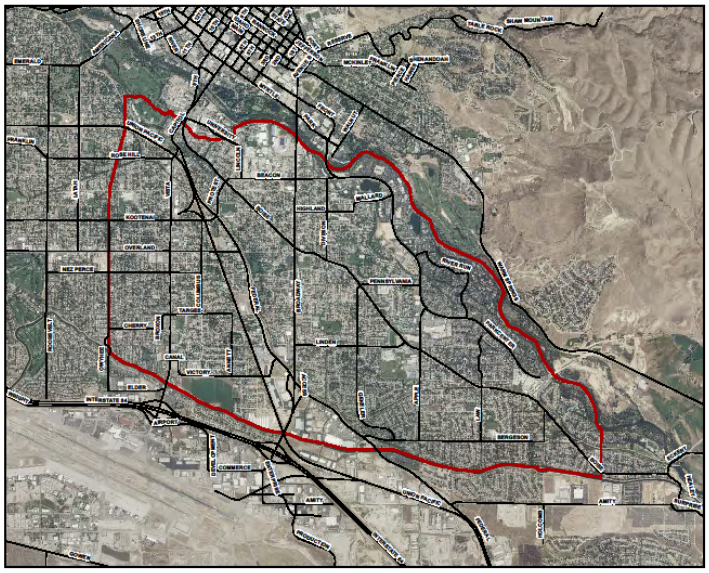
# Appendix B

# Drainage District No. 3 MS4 Maps

# DISTRICT MAPS

## ADA COUNTY DRAINAGE DISTRICT #3

PO BOX 1539
BOISE, IDAHO 83701



### BOARD MEMBERS

**JOHN "PAT" TATE, CHAIRMAN**

**JOE ICENHOWER, SECRETARY TREASURER**

**STEVE NIELSEN, BOARD MEMBER**

**RYAN ARMBRUSTER, DISTRICT COUNSEL**

**DEAN CALLEN, DISTRICT SUPERINTENDENT**

**MAY 2010**

CALL BEFORE YOU DIG!

***DIGLINE: 342-1585***

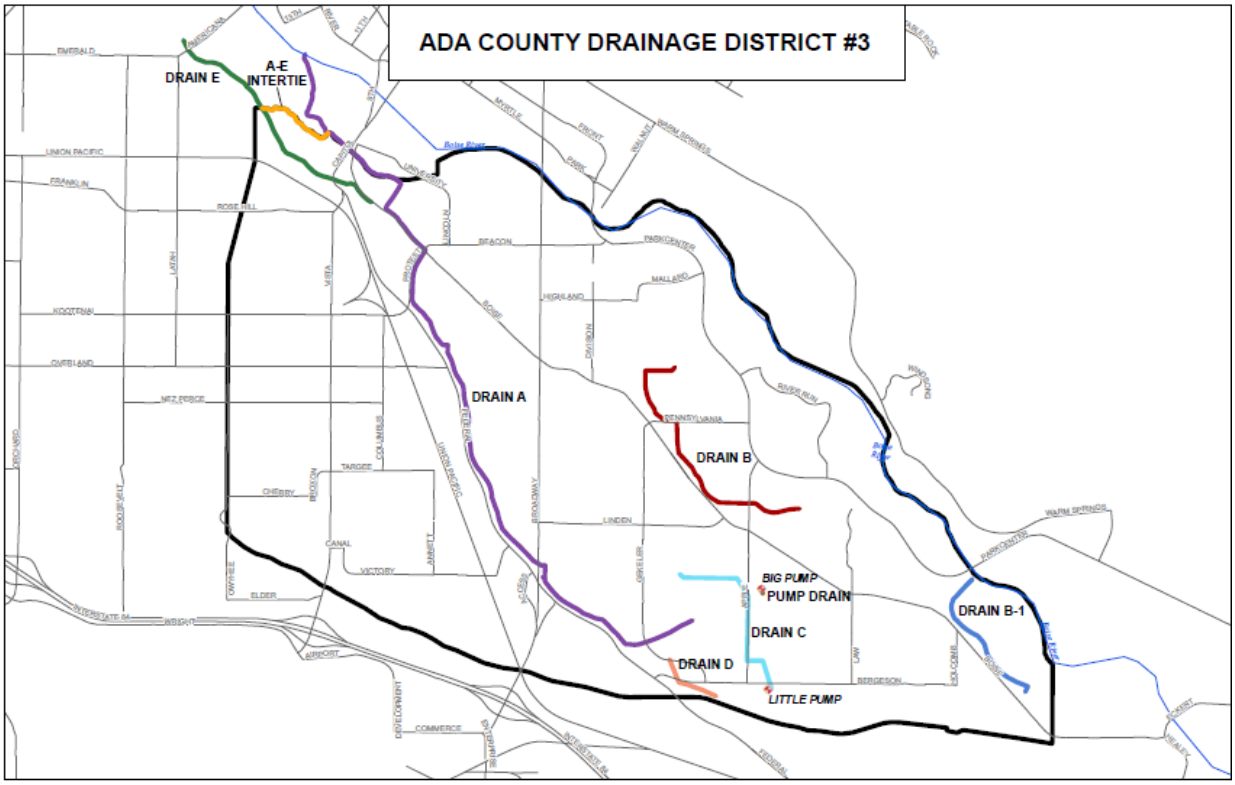
**OTHER CONTACT NUMBERS**

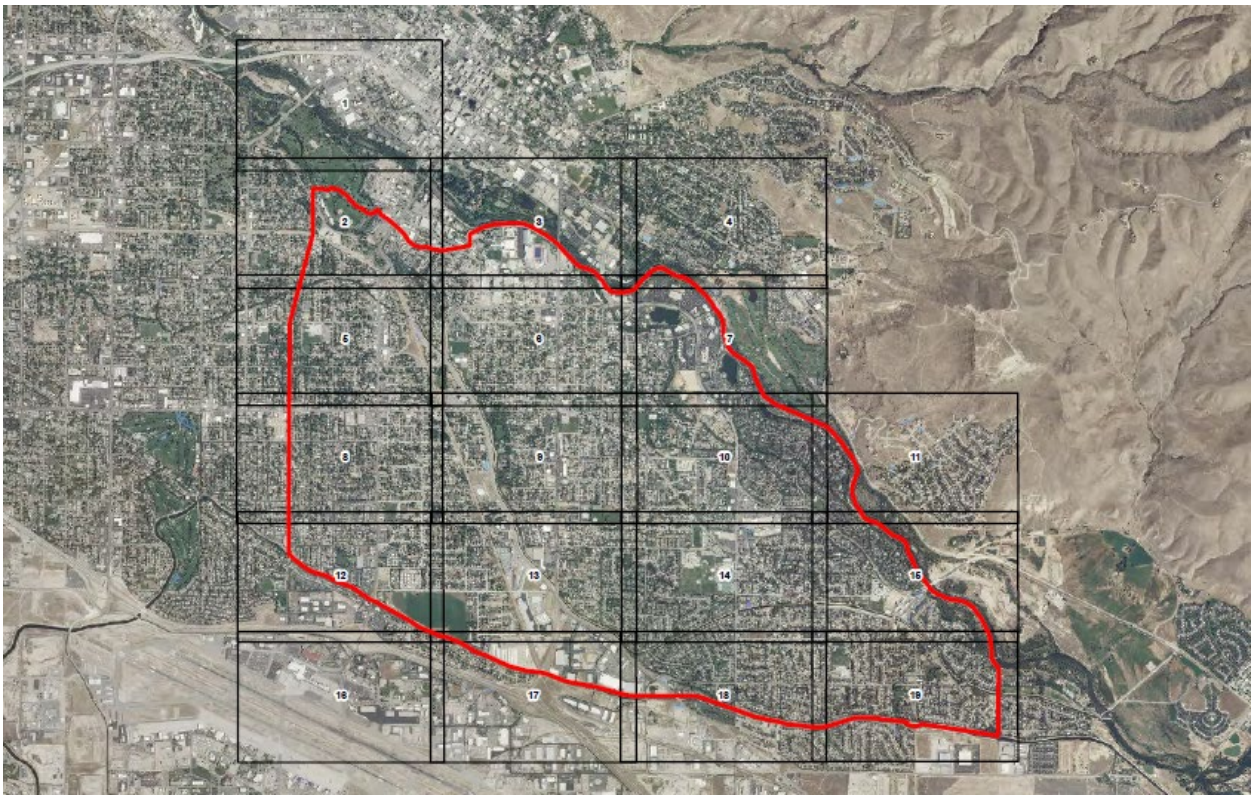
ACHD DRAINAGE = 387-6320
BOISE CITY PUBLIC WORKS = 384-3900
GARDEN CITY PUBLIC WORKS = 375-3194
NAMPA & MERIDIAN IRRIGATION DIST. = 466-7861
BOISE PROJECT BOARD OF CONTROL = 344-1141
SOUTH BOISE MUTUAL IRRIGATION CO. = 344-3062

DRAINAGE DISTRICT #2 = 342-4591
DRAINAGE DISTRICT #4 = 342-4591
SOUTH BOISE WATER CO. = 761-6450

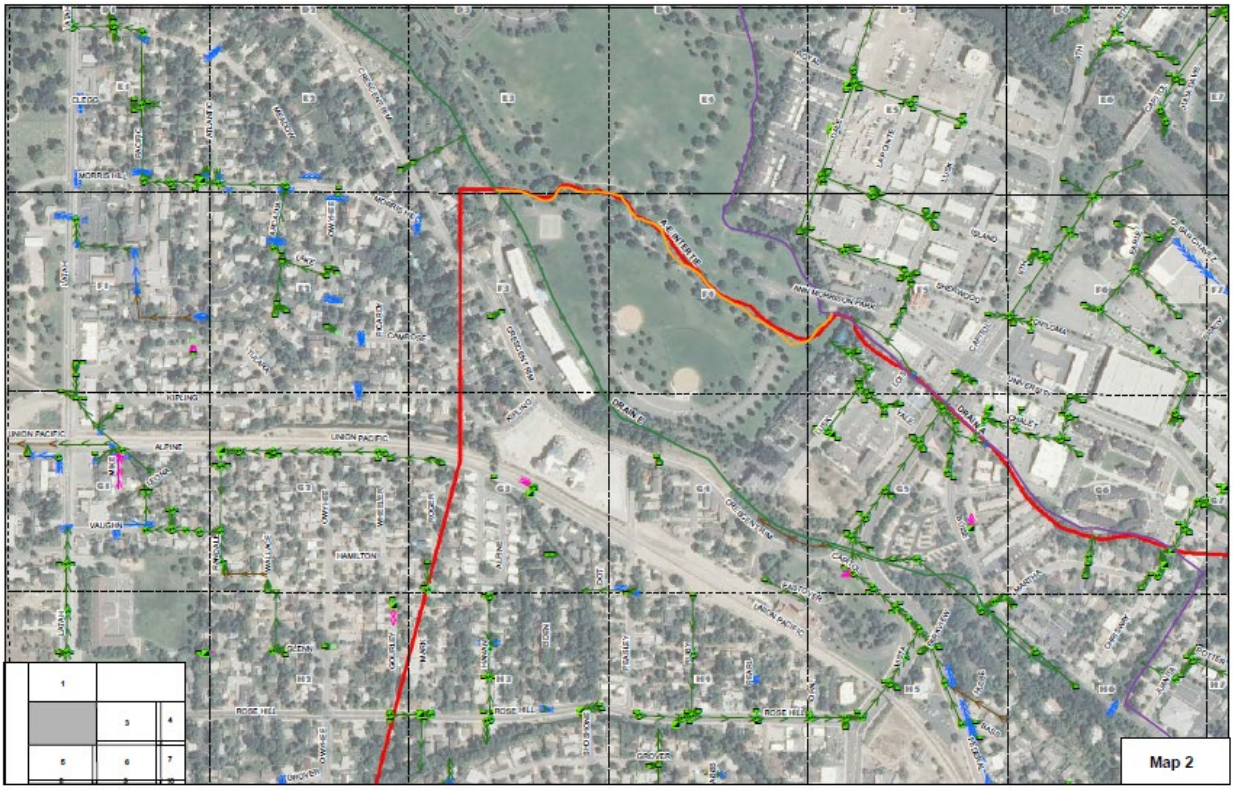
PROJECT COORDINATED FOR ADA COUNTY DRAINAGE DISTRICT #3 BY
Quadrant Consulting Inc.

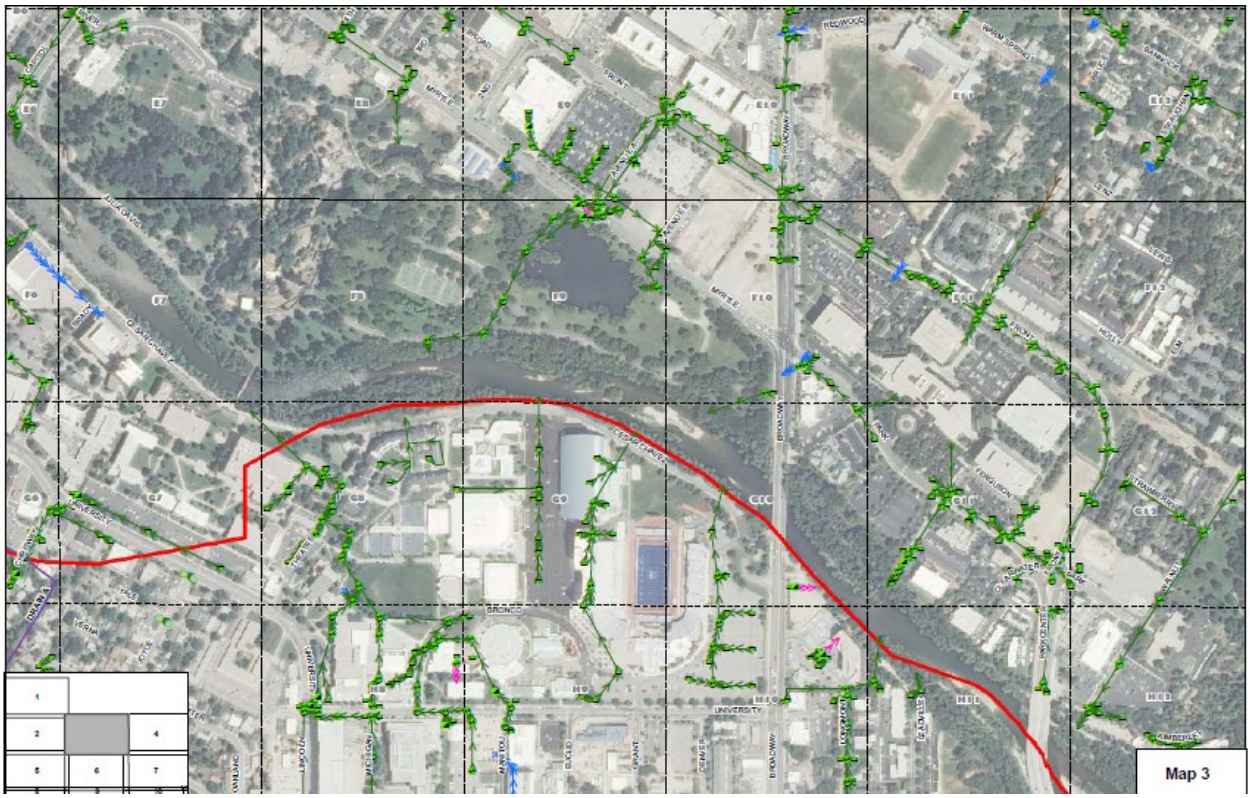
MAPBOOK DEVELOPED BY MILLENNIUM SCIENCE & ENGINEERING GIS & NATURAL RESOURCES DEPT.
MSE Millennium Science & Engineering

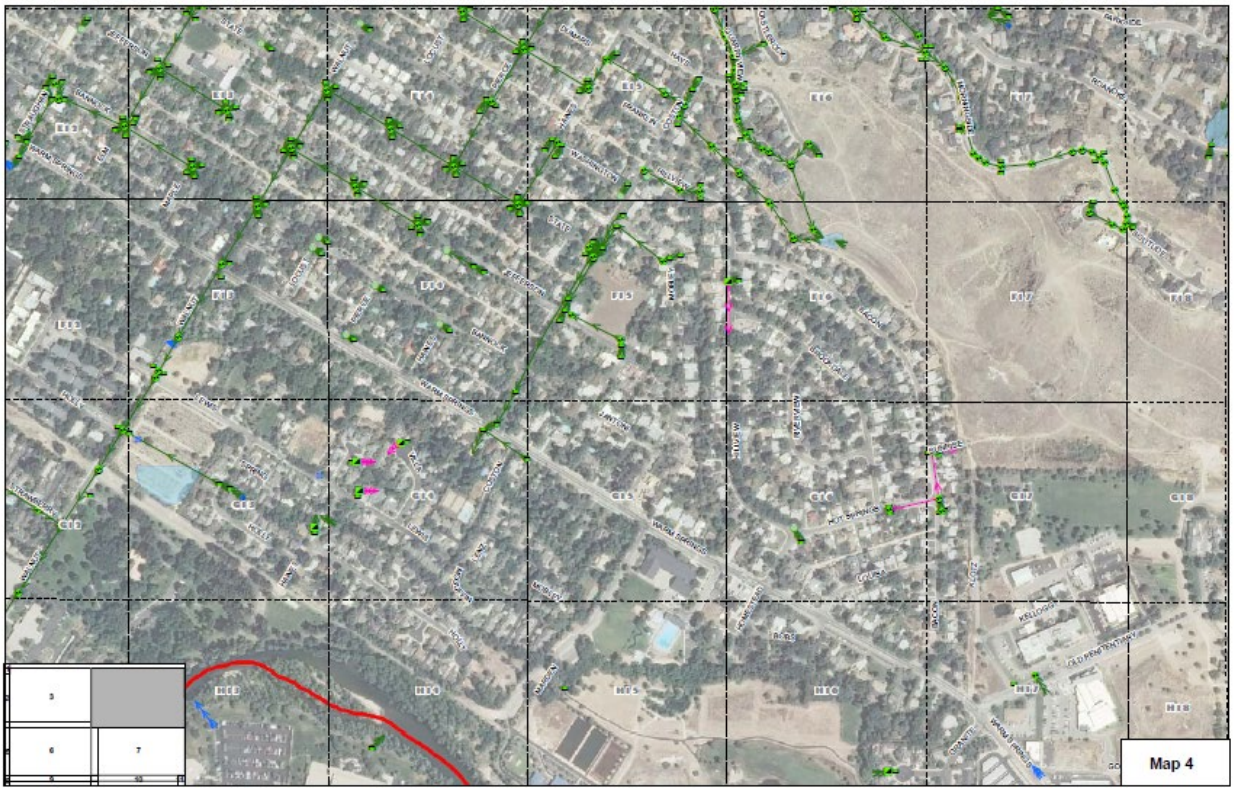


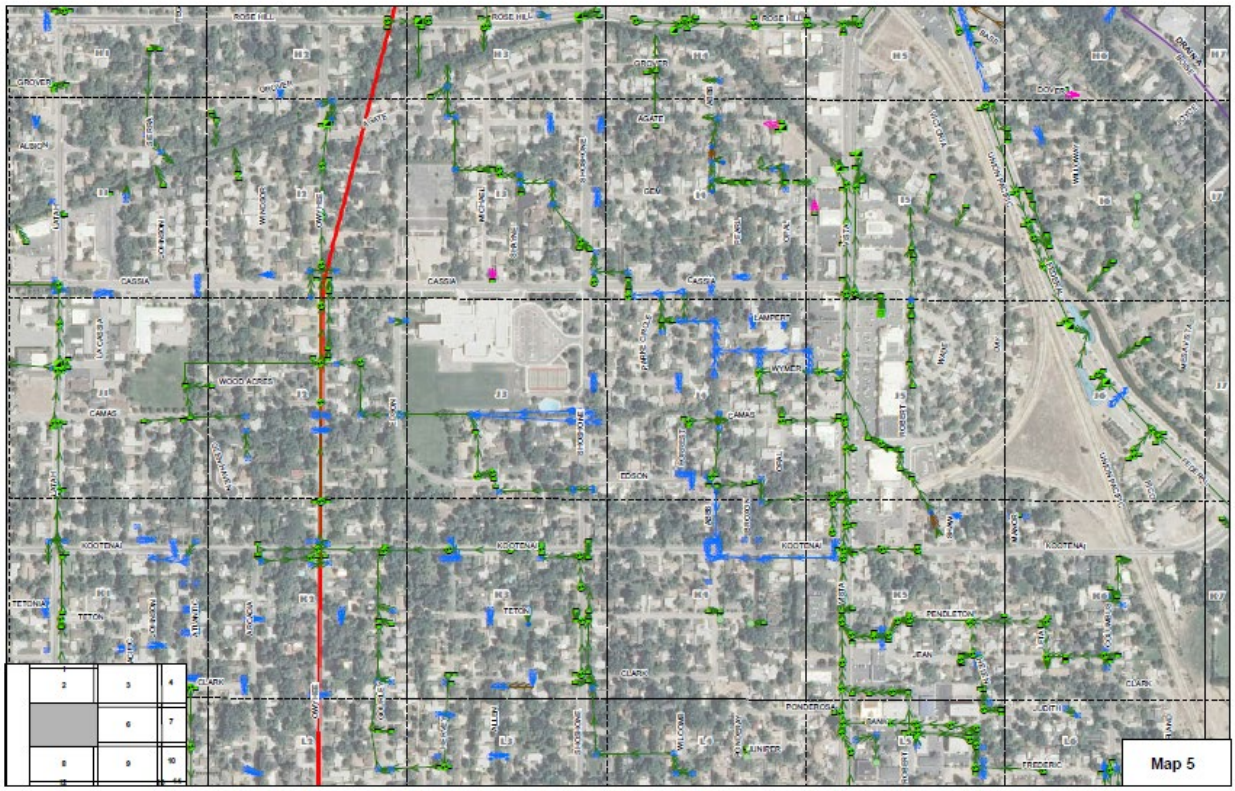

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

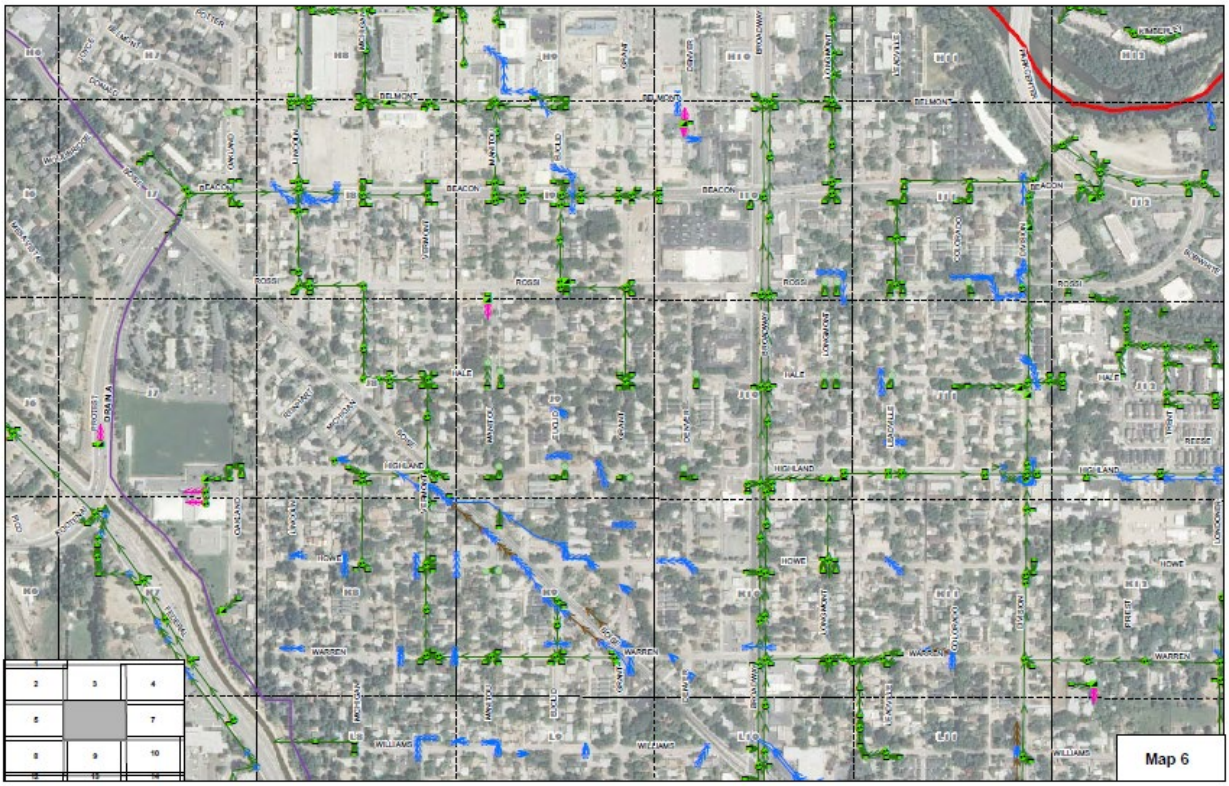

INTERSTATE 10A
FRONT
AMERICANA
GRUWELLE
EMERALD
CRESCENT RIM
DRAIN E
Map 1

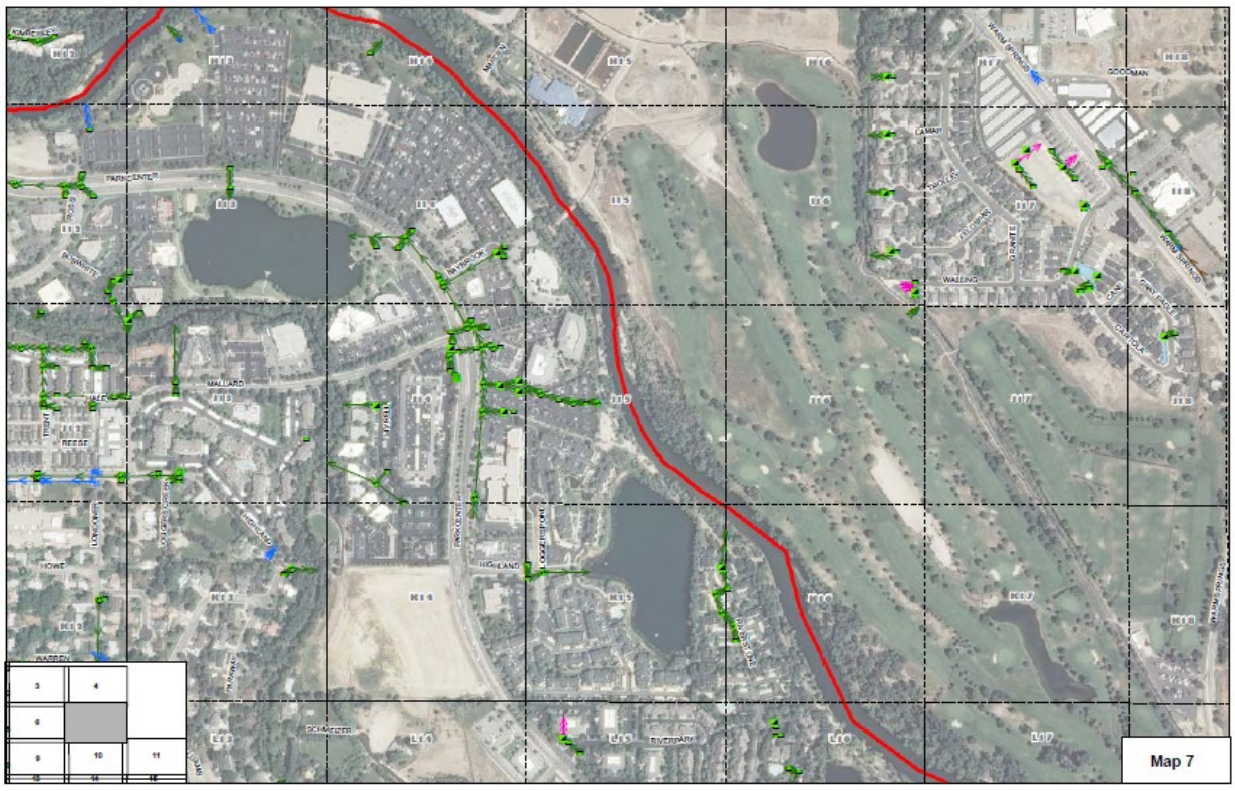

Map 2

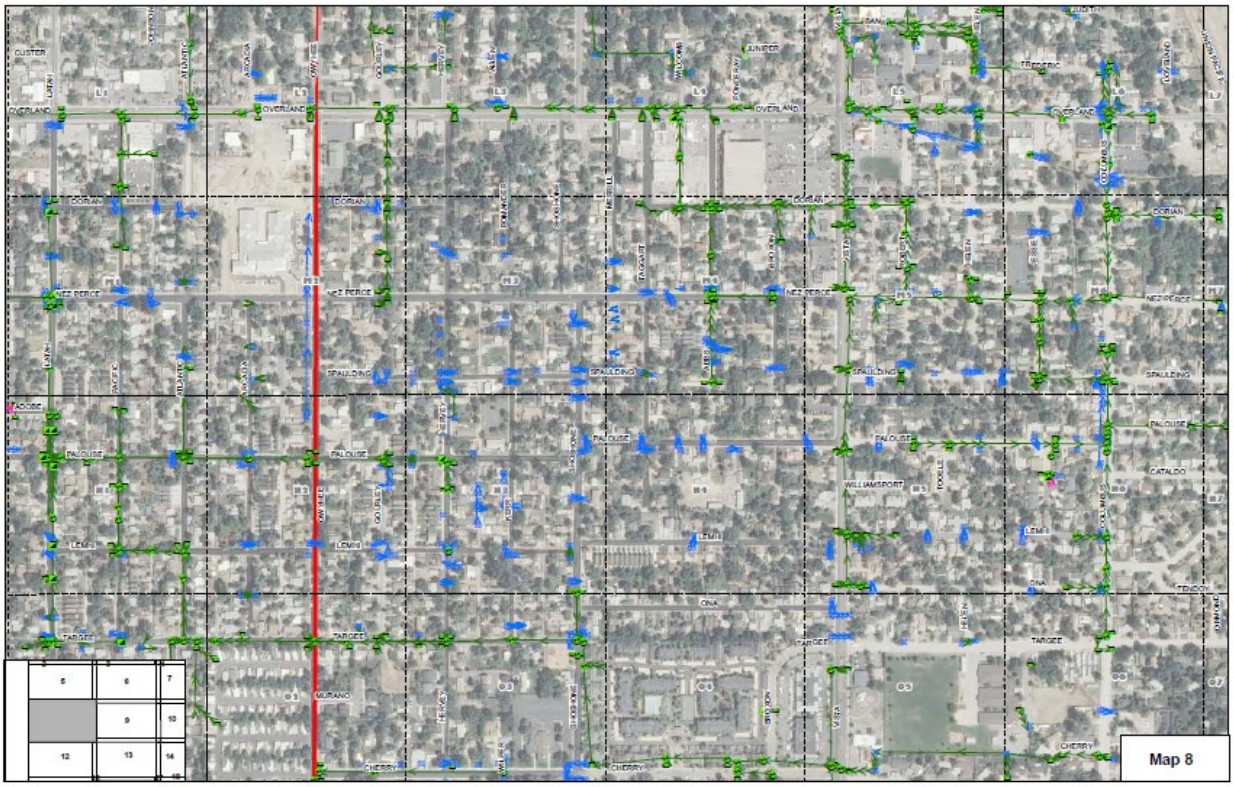

Map 3

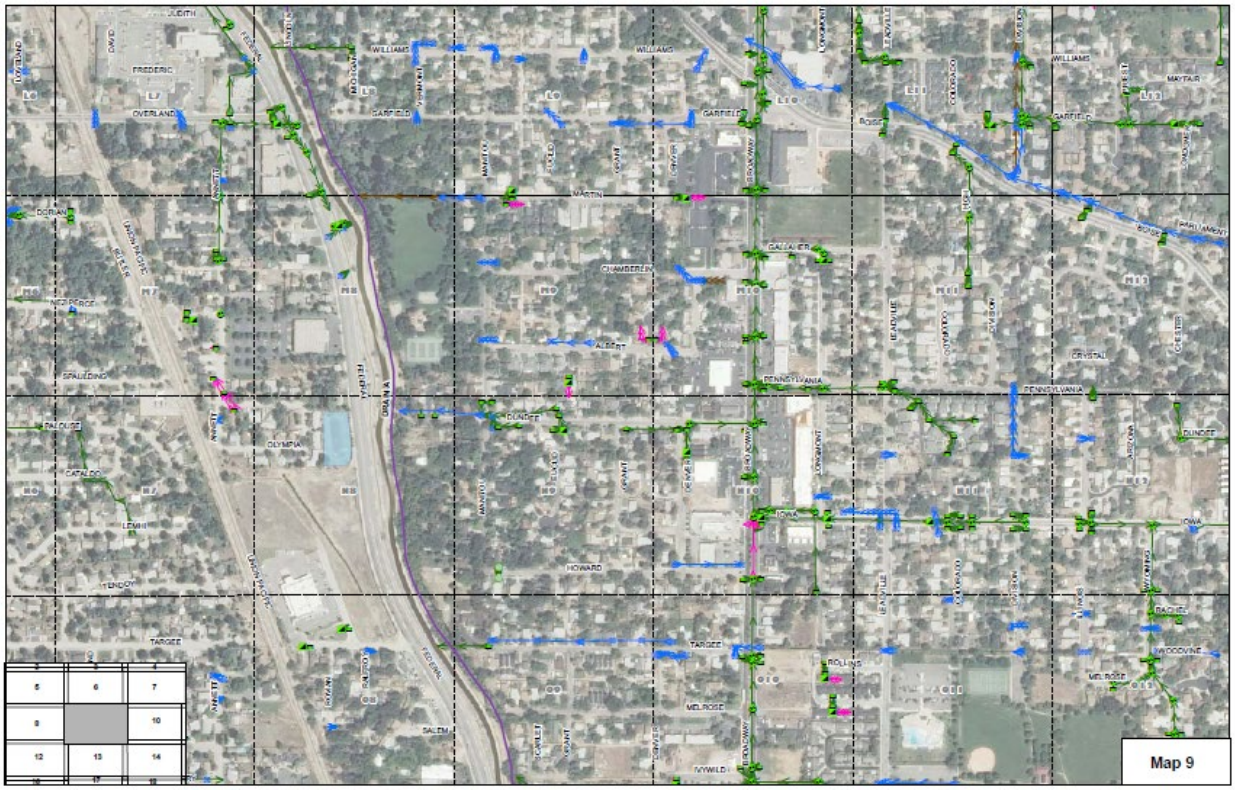

Map 4

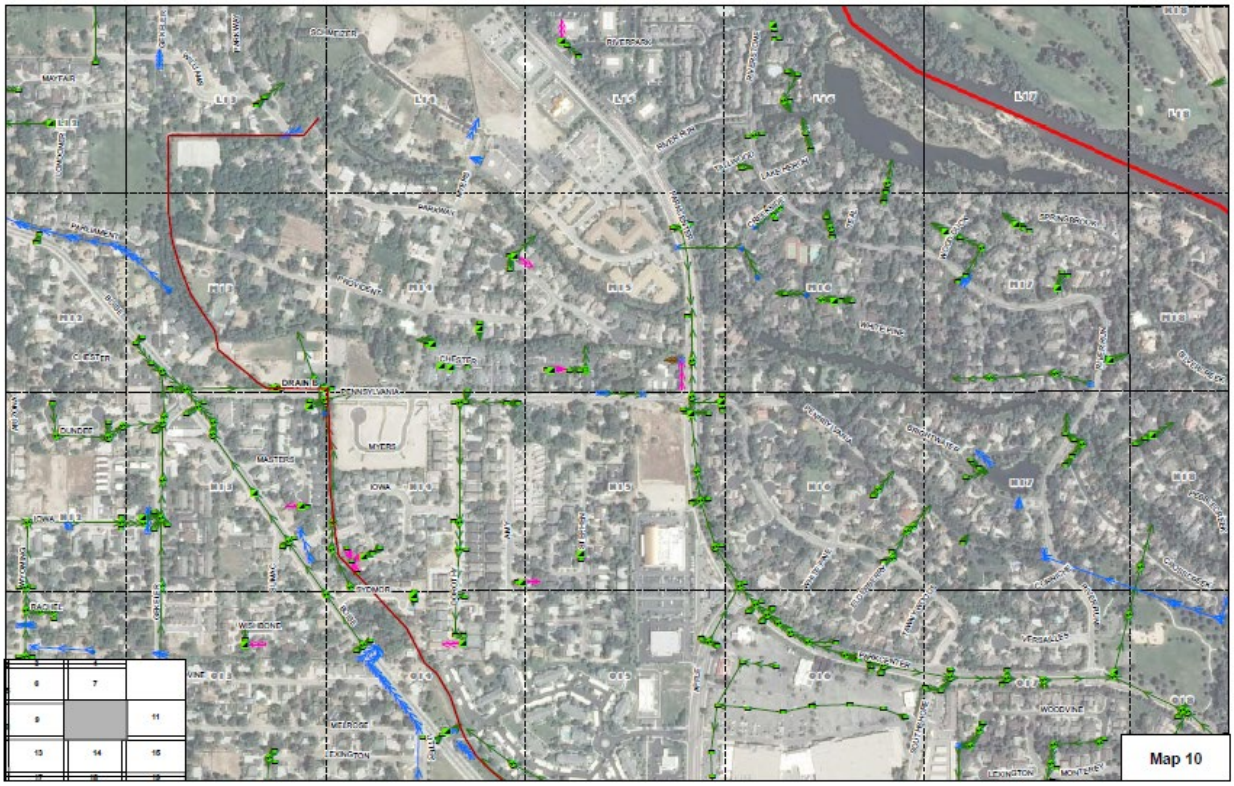

Map 5

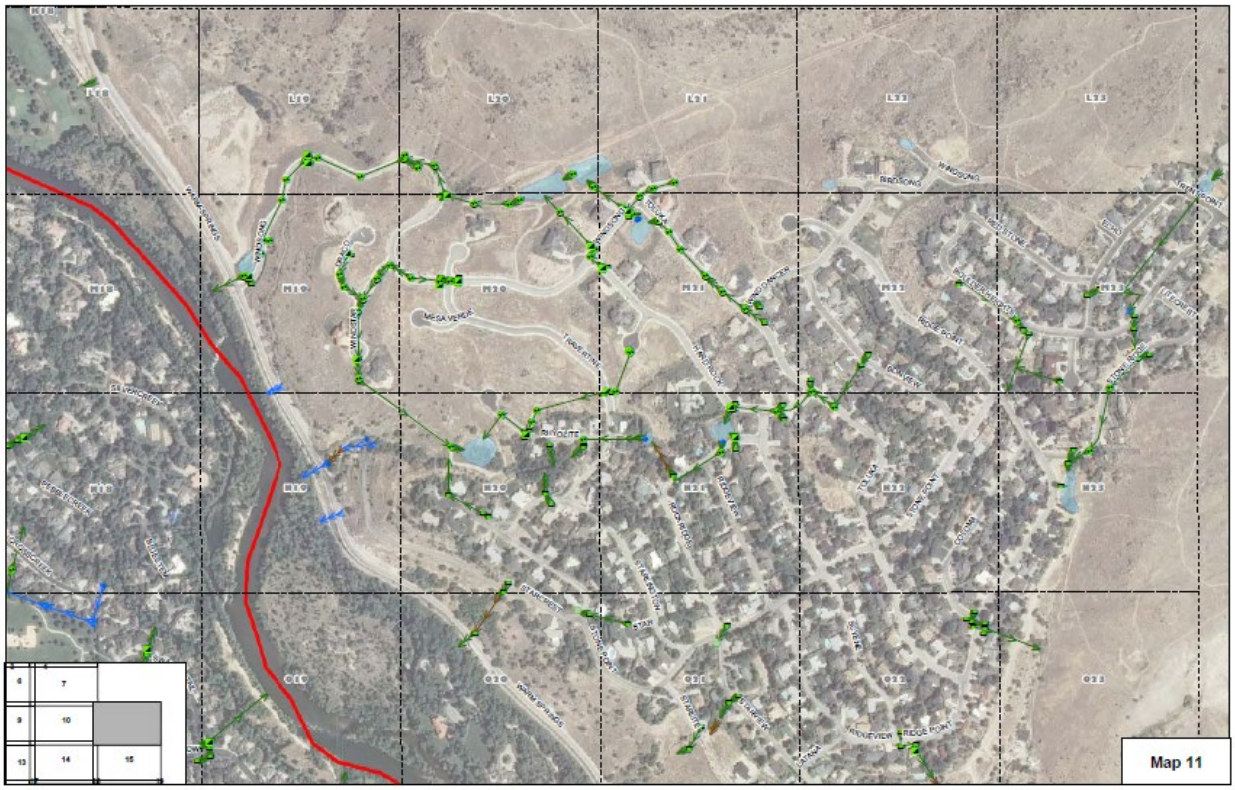

BELMONT
BEACON
ROSSI
HALE
HIGHLAND
HOWE
WARREN
WILLIAMS
Map 6

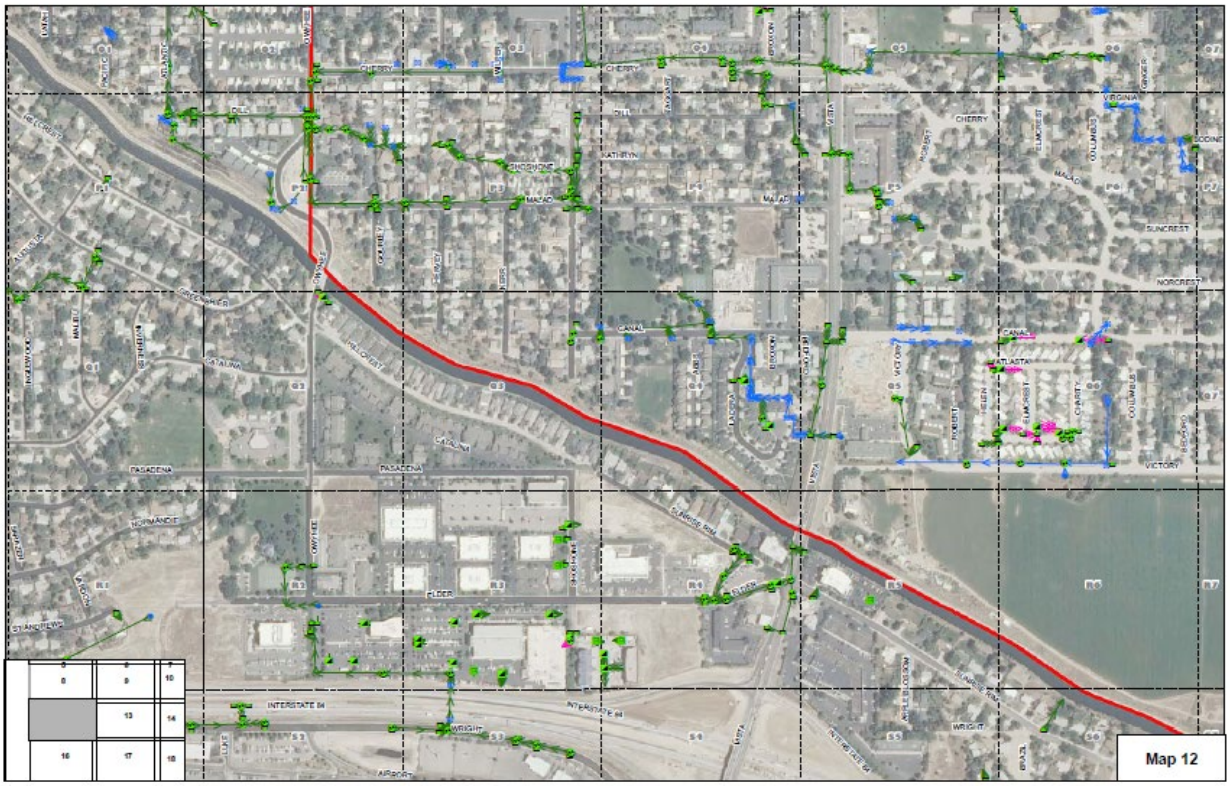

PARK CENTER
MALLARD
HALE
HIGHLAND
HOWE
WARREN
WALLING
LAMAR
GOODMAN
Map 7

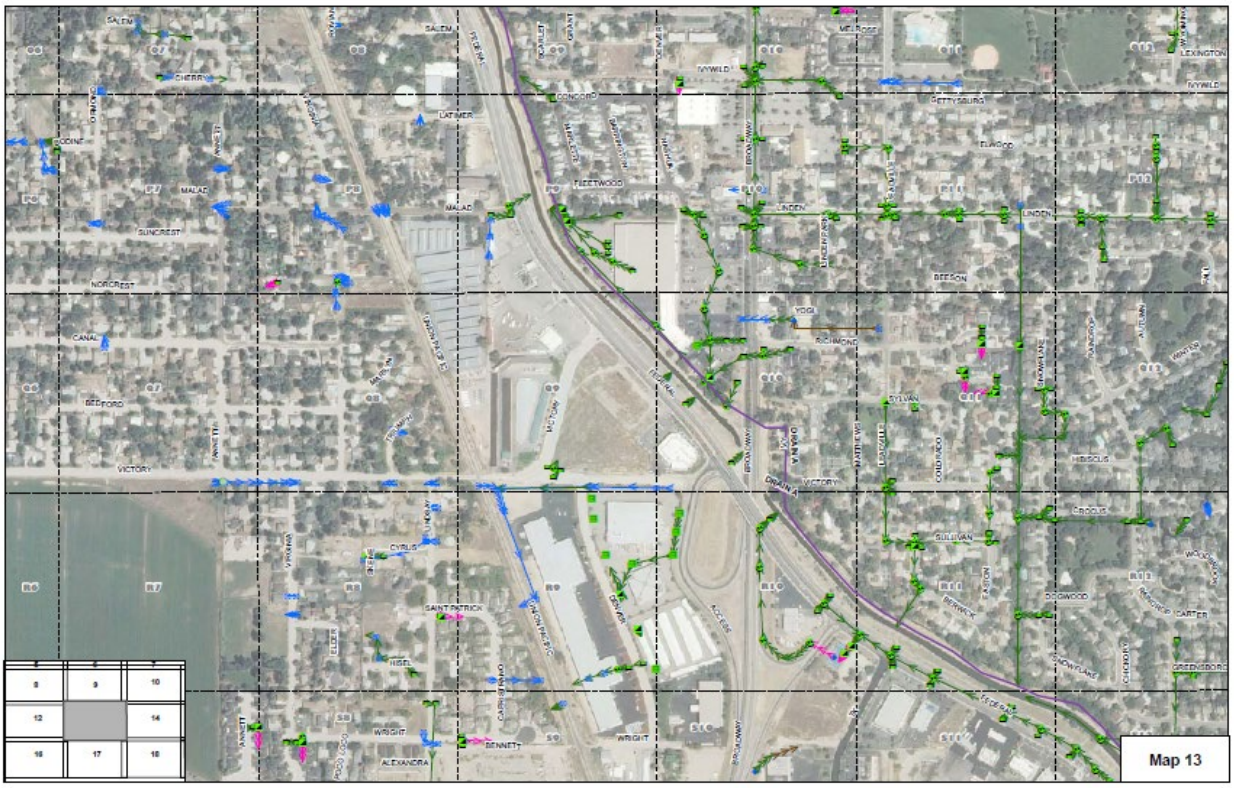

Map 8

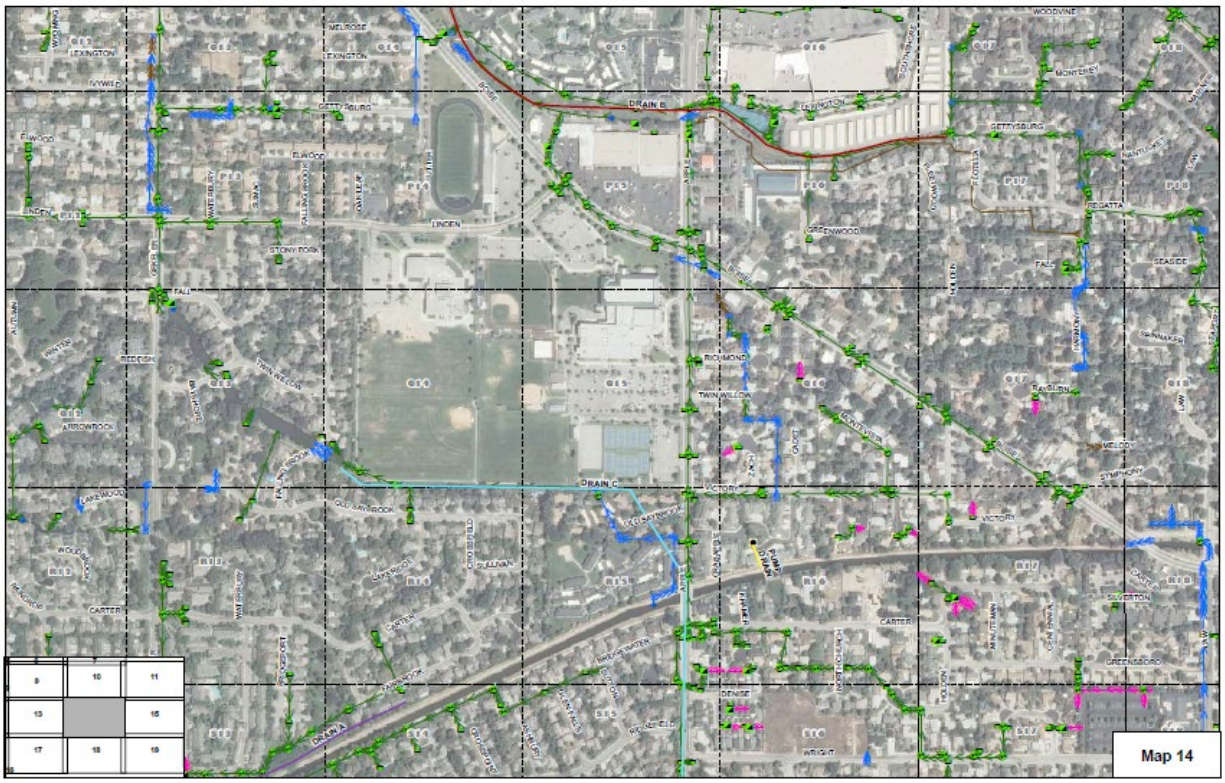

Map 9

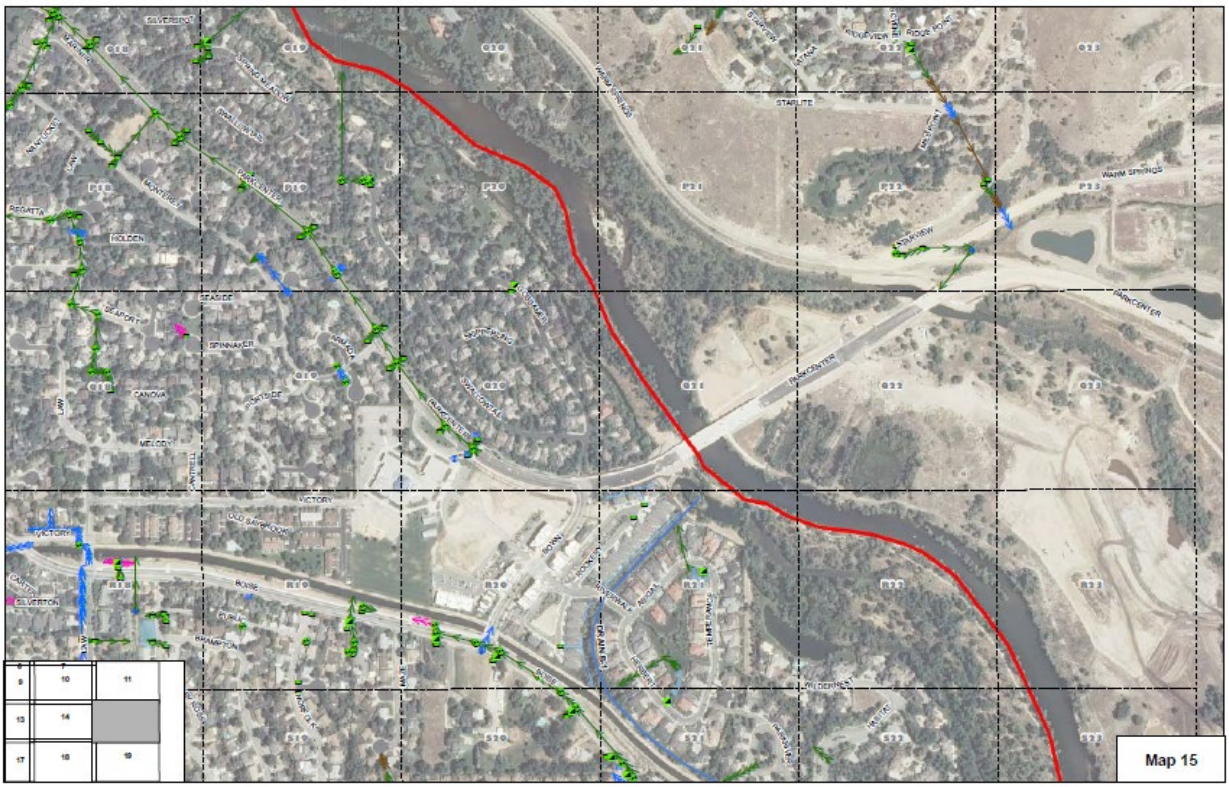

Map 10

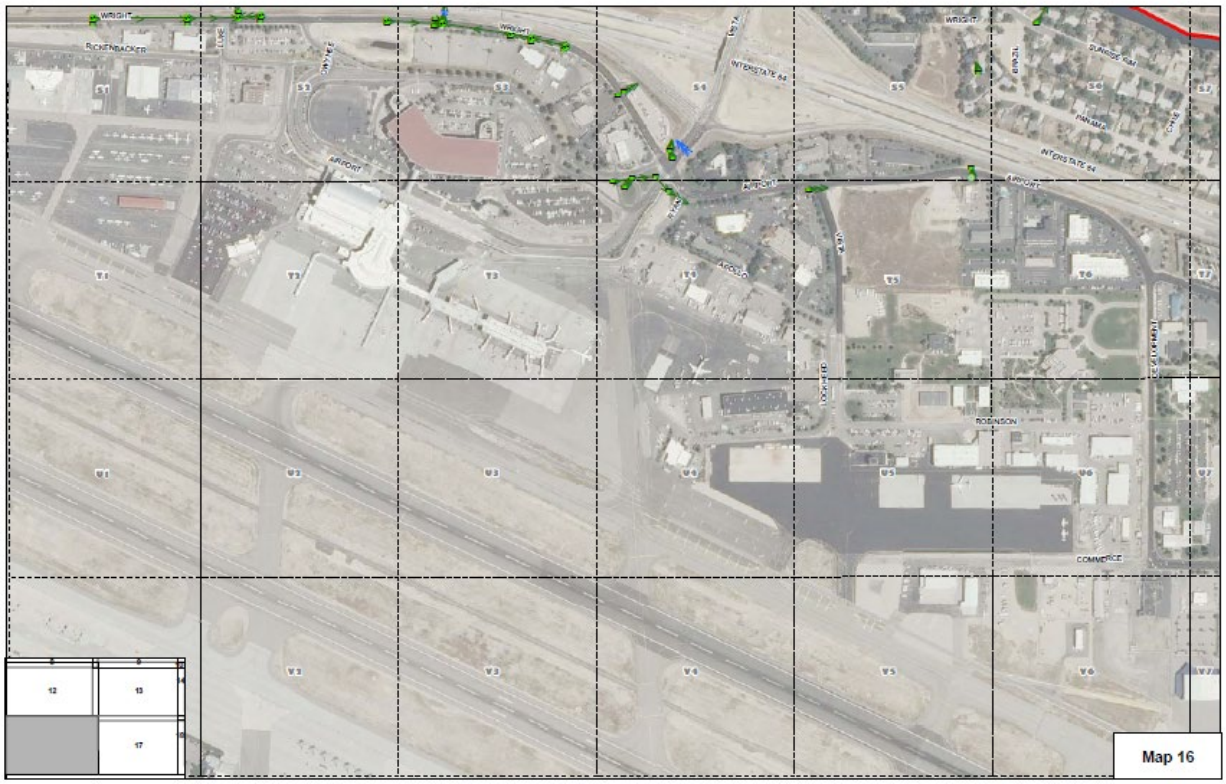

Map 11

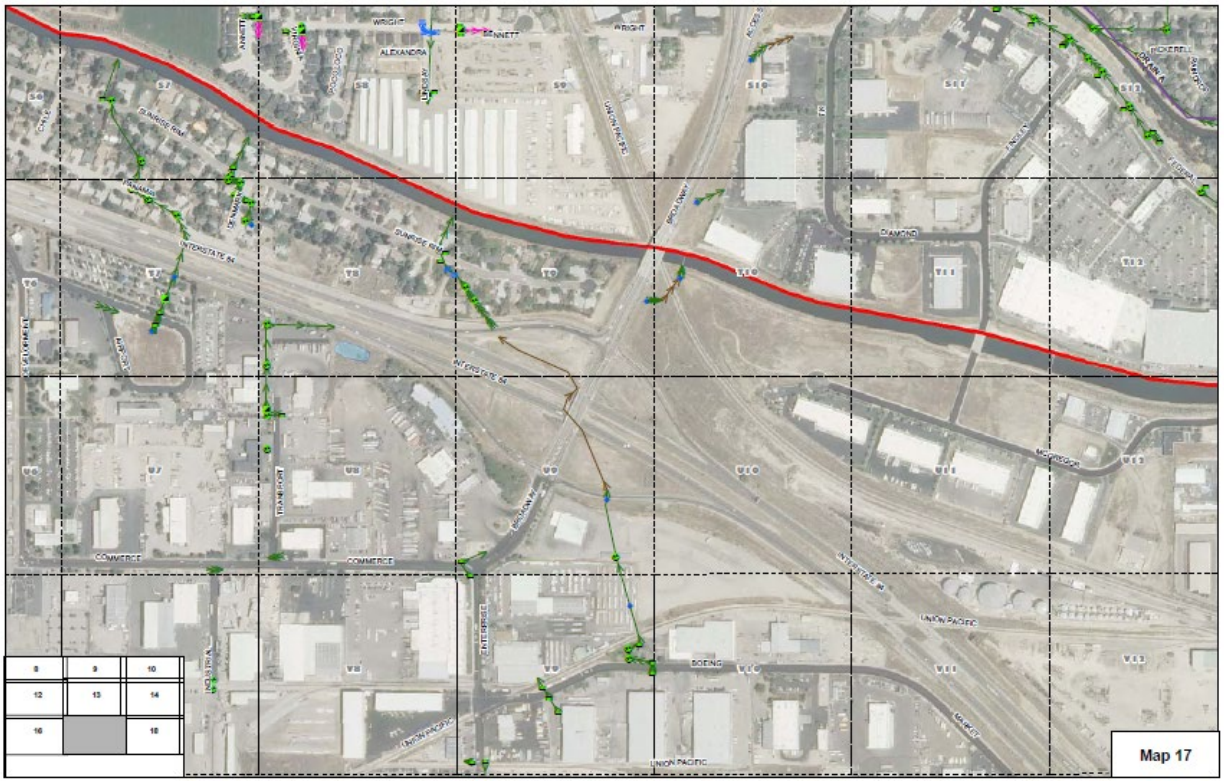

Map 12

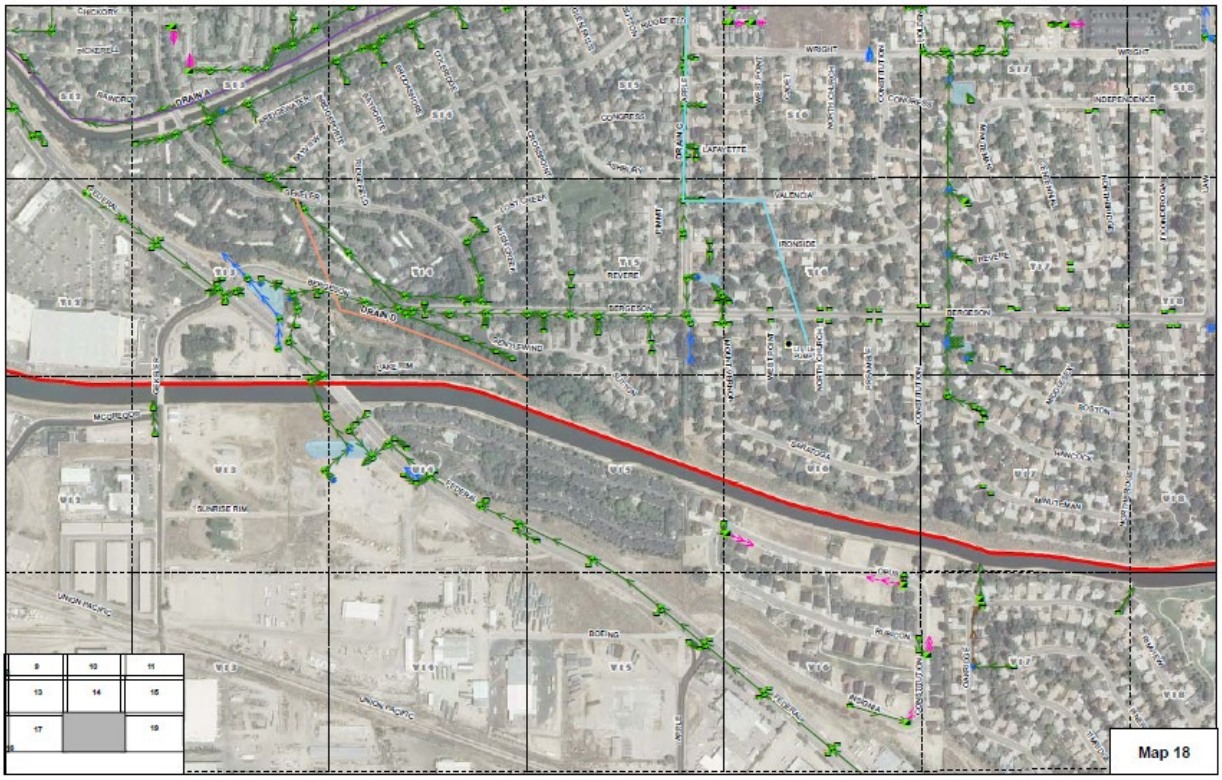

Map 13

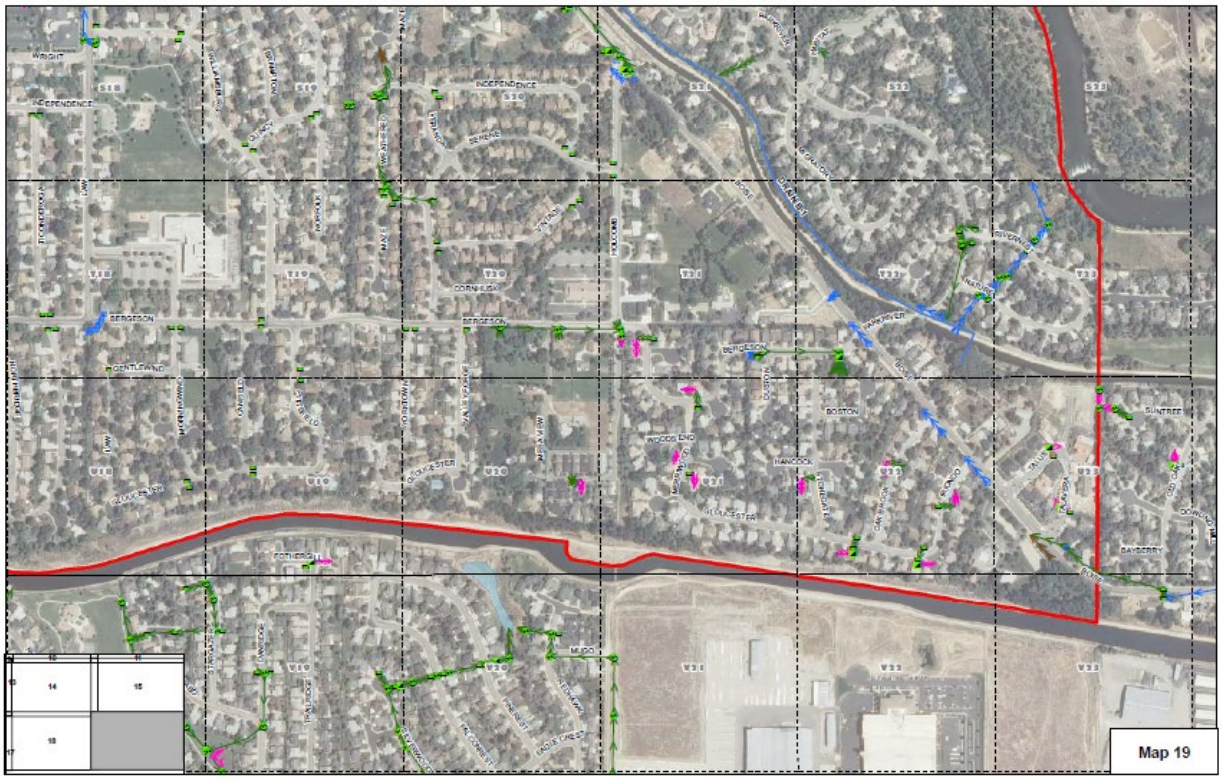

Map 14


Map 15


WRIGHT
RICKENBACKER
AIRPORT
INTERSTATE 64
ROBINSON
COMMERCE
Map 16


WRIGHT
ALEXANDRA
BENNETT
SUNRISE RIM
PANAMA
INTERSTATE 64
UNION PACIFIC
BROADWAY
DIAMOND
MORRISON
TRANSPORT
COMMERCE
BOEING
Map 17


Map 18


Map 19

# Appendix C

# Operation and Maintenance System Plan and BMPs

# OPERATION AND MAINTENANCE SYSTEM PLAN AND BMPs

## ADA COUNTY DRAINAGE DISTRICT #3

**UPDATED OCTOBER, 2022**

**PREPARED BY ABIGAIL R. GERMAINE**

## TABLE OF CONTENTS

INTRODUCTION .....1
ROLES AND RESPONSIBILITIES .....1
INSPECTION PROCEDURES AND SCHEDULES .....2
PERMITTEE INSPECTION FREQUENCY .....2
OPERATION AND MAINTENANCE .....2
INSPECTION SAFETY .....2
WASTE DISPOSAL .....3
COMPLAINT RESPONSE PROCEDURES .....3
RECEIPT AND REFERRAL OF COMPLAINT .....3
COMPLAINT INVESTIGATION .....3
FOLLOW-UP PROCEDURES .....4
COMPLAINT REFERRALS .....4
ENFORCEMENT REFERRALS .....4
FACTORS RELATING TO IMPACT .....4
FACTORS RELATING TO RESPONSIBLE PARTY .....4
RECORD KEEPING AND REPORTING .....4
ANNUAL REPORT .....5

## INTRODUCTION

The National Pollutant Discharge Elimination System, the provisions of the Clean Water Act, 33 U.S.C. § 151 et seq, as amended by the Water Quality Act of 1987, Public Law 100-4 ("Clean Water Act"), and the Rules Regulating the Idaho Pollutant Discharge Elimination System Program (IDAPA 58.01.25) ("Rules and Regulations") are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") Municipal Separate Storm Sewer System (MS4) permits which allows the lawful discharge of stormwater into the waters of the United States.

On February 1, 2013, to Ada County Highway District ("ACHD"), Boise State University, city of Boise, city of Garden City, Ada County Drainage District No 3 ("DD3"), and the Idaho Transportation Department District #3, referred to as the "Permittees", received NPDES Permit #IDS027561, which was administratively extended until October 1, 2021.

On July 1, 2021, the Idaho Department of Environmental Quality ("IDEQ"), with delegated authority from the U.S. Environmental Protection Agency ("EPA"), took over primacy for the NPDES MS4 permits in Idaho and became responsible for the issuing of permits and assuring compliance with all permit requirements. Following this delegation, the Permittees received National Pollutant Discharge Elimination System ("NPDES") Permit IDS027561 (the "Permit"), effective October 1, 2021.

The Permit contains inspection procedures and reporting requirements; operation and maintenance activities and criteria used to determine when maintenance is needed; public education and outreach requirements; complaint and illicit discharge response procedures; and record keeping practices. Each Permittee is required to implement and enforce a Storm Water Management Program (SWMP) including best management practices (BMPs), controls, system design, reporting requirements, engineering methods, and other provisions appropriate to control and minimize the discharge of pollutants from the MS4s.

## ROLES AND RESPONSIBILITIES

Responsibility for control of stormwater runoff and discharges to the MS4 stormwater system is shared by a number of entities within Boise City. Each Permittee is individually responsible for permit compliance related only to portions of the MS4 owned or operated solely by that Permittee and where the permit requires specific action. Each Permittee is jointly responsible for activities relating to the MS4 where operational or SWMP implementation authority has been transferred to all the Permittees in accordance with an intergovernmental agreement or agreement between the Permittees; related portions of the MS4 where Permittees jointly own or operate a portion of the MS4; related to the submission of individual reports or other documents required by the Permit; and where the Permit requires the Permittee to take action.

## INSPECTION PROCEDURES AND SCHEDULES

Inspections are conducted to evaluate the operational status of the DD3 system and to identify problems and necessary maintenance actions. The District has several outfalls and drains under the purview of the Permit.

### PERMITTEE INSPECTION FREQUENCY

In conjunction with ACHD as the lead Permittee, for the reporting period of each year, October 1 – September 30, 2022, wet weather stormwater outfall monitoring is conducted by ACHD in accordance with Part 6.2.1 of the Permit and the Storm Water Outfall Monitoring Plan. The details concerning stormwater sampling events are under the control of ACHD through cooperative actions of all the Permittees. Permittees must conduct visual dry weather screening of at least 20% of their total outfalls per year and screening must be conducted within the June 1 and September 30 timeframe for at least one third of the total outfalls to be screened annually. DD3 having less than seven (7) outfalls is permitted to conduct dry weather screening of one outfall, per year (Part 3.2.5.2). This dry weather screening is conducted by ACHD on DD3's behalf, through separate agreement. DD3 undertakes its own inspection and other activity of its system primarily during the irrigation season, generally from April through September of each year.

Inspection and maintenance forms are used to document potential problems and maintenance recommendations. Each system component is inspected to determine the conditions present.

## OPERATION AND MAINTENANCE

Inspection and maintenance are performed primarily during the irrigation season. The type of maintenance is determined by inspection results and the maintenance schedule.

Routine maintenance typically consists of removal of debris and cleaning of discharge points. Litter is picked up as needed to keep open ditches clear of debris. Non-routine maintenance is occasionally required, e.g., beaver obstruction, illegal dumping, accidental spills, massive sediment, and debris inflow. When removing debris, all collected debris will be managed and disposed of in a manner such as to prevent such pollutants from entering the water of the U.S.

If there is an accidental spill, it will be isolated to keep it from reaching other water bodies. Stormwater system flow points, such as gates, valves, orifices, and outlet pipes, are kept closed to isolate the spill. If the spill consists of flammable or hazardous materials, the Boise City Fire Department or 911 is contacted for assistance.

### INSPECTION SAFETY

The individual inspecting the stormwater system should always consider safety as the first priority. The inspector should have the proper safety equipment (heavy duty gloves, boots, and first aid kits, for example) before conducting any inspections. Although the safety precautions

listed here are common sense, they should not be disregarded. Neglecting to follow even the simplest safety precaution can potentially cause serious injury. If the stormwater system inspection reveals a safety problem, then site activities may be modified to reduce or eliminate the safety risk.

### WASTE DISPOSAL

Most storm water system waste consists of trash, leaves, grass, and sediment. The quality of waste is typically small and non-hazardous because of frequent inspection and maintenance activities. When removing debris, all collected debris will be managed and disposed of in a manner such as to prevent such pollutants from entering the water of the U.S.

## COMPLAINT RESPONSE PROCEDURES

Inspections will also be conducted when a complaint is received from the public or referred by another agency.

### RECEIPT AND REFERRAL OF COMPLAINT

When a complaint is received, a determination will be made of the severity of the situation. If the complaint involves hazardous substances or large quantities of substances that may pose a threat to life, health, and safety, the Fire Department will be notified (911). ACHD or other drainage entities should also be notified if their systems are impacted by the problem.

If the complaint is outside the District's jurisdiction or involves another Permittees infrastructure or stormwater system, it is referred to the appropriate agency or district.

### COMPLAINT INVESTIGATION

The inspector will visit the site of reported complaint and will determine if immediate action is needed to keep pollutants out of the stormwater system or receiving water body. It is the responsibility of the liable party to keep pollutants from entering the stormwater system. However, when the inspector arrives on site, it may be necessary to assist in spill cleanup by using materials to absorb, contain, or divert pollutants to keep them from reaching the storm drain system. The inspector should educate the responsible party on proper cleanup and disposal methods. The inspector will also need to determine whether the system of another jurisdiction has been impacted and notify the appropriate entity, if necessary.

Once all immediate threats to the stormwater system or other water body have been addressed, or if there are no immediate threats, a site investigation will be completed. Information will be gathered, and the situation will be discussed with witnesses or responsible person. If necessary, photographs will be taken with a label containing date, location, time, and initials. All information shall be documented on a records form.

### FOLLOW-UP PROCEDURES

The inspector ensures, by either a site drive-by or a follow-up investigation, that cleanup has occurred, and the problem is taken care of.

### COMPLAINT REFERRALS

Complaints are referred to the appropriate agency for investigation. If the complaint is forwarded, through mutual agreement, the city can offer support to DD3 to resolve the problem.

### ENFORCEMENT REFERRALS

The inspector should have a good understanding of what regulatory requirement was violated and how. An explanation of how a party failed to comply with the regulatory requirements is required in the referral report. Compliance determinations must be based solely on the factual information collected.

A determination of whether an enforcement action is warranted is based on what the determination is based on.

### FACTORS RELATING TO IMPACT

An initial site visit and assessment should occur as soon as possible after the complaint is received.

### FACTORS RELATING TO RESPONSIBLE PARTY

A referral package should be prepared and should include the inspection report and a list of violations alleged, along with the evidence. The referral package should contain a narrative summary including, and among other things, the following information: 1) the factual evidence in support of the alleged violation(s) and 2) inspector's determination, along with supporting facts, of whether this is a one-time, continuing, or recalcitrant violation.

## RECORD KEEPING AND REPORTING

Proper records management is important to preserve information for reporting purposes and to support any enforcement action. The information related to inspection, maintenance, or complaint response activities comprise documentation of the Operation and Maintenance Plan and BMPs' activities and findings. Inspection forms, maintenance forms, and complaint response forms will be retained and filed. All information collected in an investigation of a complaint or violation will also be retained. This may include photographs, laboratory reports, drawings, or other forms of information that document site conditions.

An annual summary is prepared of inspection and maintenance activities for inclusion in the annual report to the IDEQ. The forms are organized by activity and system section and are filled out whenever one of these activities is undertaken.

ANNUAL REPORT

The Permit requires submission of an annual report that contains certain information related to program implementation. The information will be tracked on an ongoing basis and compiled quarterly. The annual report will be prepared consistent with the Permit reporting requirements.

# 2025 Attachment L - NPDES Phase 1 Temp Monitoring Approach

# NPDES Phase I Temperature Monitoring Approach

Ada County Highway District

12/7/2022

# Table of Contents

1. Introduction ..... 3
1.1 Stormwater Outfall Monitoring Plan (SWOMP) ..... 3
1.2 Dry Weather Outfall Screening Plan (DWOSP) ..... 3
1.3 Americana Subwatershed Monitoring Plan ..... 4
1.4 Plantation Lane Temperature Monitoring Plan ..... 4
2. Methods ..... 6
2.1 Equipment Inspection and Calibration ..... 6
3. Data Management ..... 6
3.1 Data Validation ..... 6
Appendix A – Plantation Lane Temperature Monitoring Plan ..... 7

# 1. Introduction

The Environmental Protection Agency, Region 10 (EPA) issued the third cycle National Pollutant Discharge Elimination System (NPDES) Municipal Storm Separate Sewer System (MS4) Phase I Permit No. IDS027561 (Permit) effective October 1, 2021, to Ada County Highway District (ACHD), Boise State University (BSU), City of Boise, City of Garden City, Drainage District #3, and Idaho Transportation Department District #3 (ITD), referred to as the "Permittees." Starting July 1, 2021, the Idaho Department of Environmental Quality (IDEQ) acquired Permit authority through the Idaho Pollutant Discharge Elimination System (IPDES) Program. The Permit authorizes stormwater discharges from MS4 outfalls to waters of the United States in accordance with the conditions and requirements of the Permit. Under this permit, the Permittees are required to monitor temperature in stormwater discharges from the MS4 to the Boise River including assessment units (AU) 17050114SW005_06, 17050114SW005_06a, 17050114SW005_06b, to quantify stormwater impacts to this waterbody (Permit Part 4.1).

The Boise River AUs that are included within the Phase I permit area are 17050114SW011a_06 (Diversion Dam to Veteran's Memorial Parkway (VMP) bridge) and 17050114SW005_06 (Veteran's Memorial Parkway bridge to Star Road bridge). The remaining AUs listed in the Permit (17050114SW005_06a and 17050114SW005_06b) are outside of the permit area, and therefore do not have Permittee stormwater contribution.

Temperature monitoring has been incorporated into all NPDES monitoring projects conducted to date, in both dry weather and wet weather stormwater discharges. The majority of sampling under existing monitoring plans is completed at outfalls that discharge to the Boise River between Diversion Dam and VMP bridge (AU 17050114SW011a_06). To meet the additional requirement specific to AU 17050114SW005_06, outfall 4n2e30_012 was equipped with a temperature logger and data collection began under the *Plantation Lane Temperature Monitoring Plan* (Appendix A).

All NPDES monitoring plans were developed in line with the Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring (QAPP) (ACHD, 2021) and contain details specific to the monitored outfall locations, procedures, and equipment. A summary of each monitoring plan with respect to temperature is provided below. Figure 1 shows a map of the location of each outfall, and the associated monitoring plan(s). Table 1 depicts the type and frequency of temperature readings from each monitored outfall.

## 1.1 Stormwater Outfall Monitoring Plan (SWOMP)

The *Stormwater Outfall Monitoring Plan* provides the methods for stormwater outfall monitoring and includes site and drainage area descriptive details for each monitoring station. Temperature data is collected in multiple ways at outfalls monitored under this plan. During monitored storm events, temperature is collected continuously, and a discrete temperature reading is collected as a grab sample. Additionally, continuous temperature data are collected year-round from stations that are known to have dry weather discharges.

## 1.2 Dry Weather Outfall Screening Plan (DWOSP)

The *Dry Weather Outfall Screening Plan* explains the process for dry weather outfall screening and provides comprehensive guidance for outfall investigation efforts. Under this plan, discrete temperature data are collected at outfalls that have dry weather discharge. Discrete samples are collected from outfalls with known dry weather flows up to three times per year, assuming flow is present.

## 1.3 Americana Subwatershed Monitoring Plan

The *Americana Subwatershed Monitoring Plan* describes the procedures for subwatershed monitoring within the Americana Subwatershed to determine sources of non-stormwater flow and areas of elevated pollutant loads. As a part of this plan, continuous temperature data are collected year-round at one outfall.

## 1.4 Plantation Lane Temperature Monitoring Plan

The *Plantation Lane Temperature Monitoring Plan* was developed to address temperature monitoring specific to the Boise River AU 17050114SW005_06. Under this plan, continuous temperature data are collected year-round at one outfall.

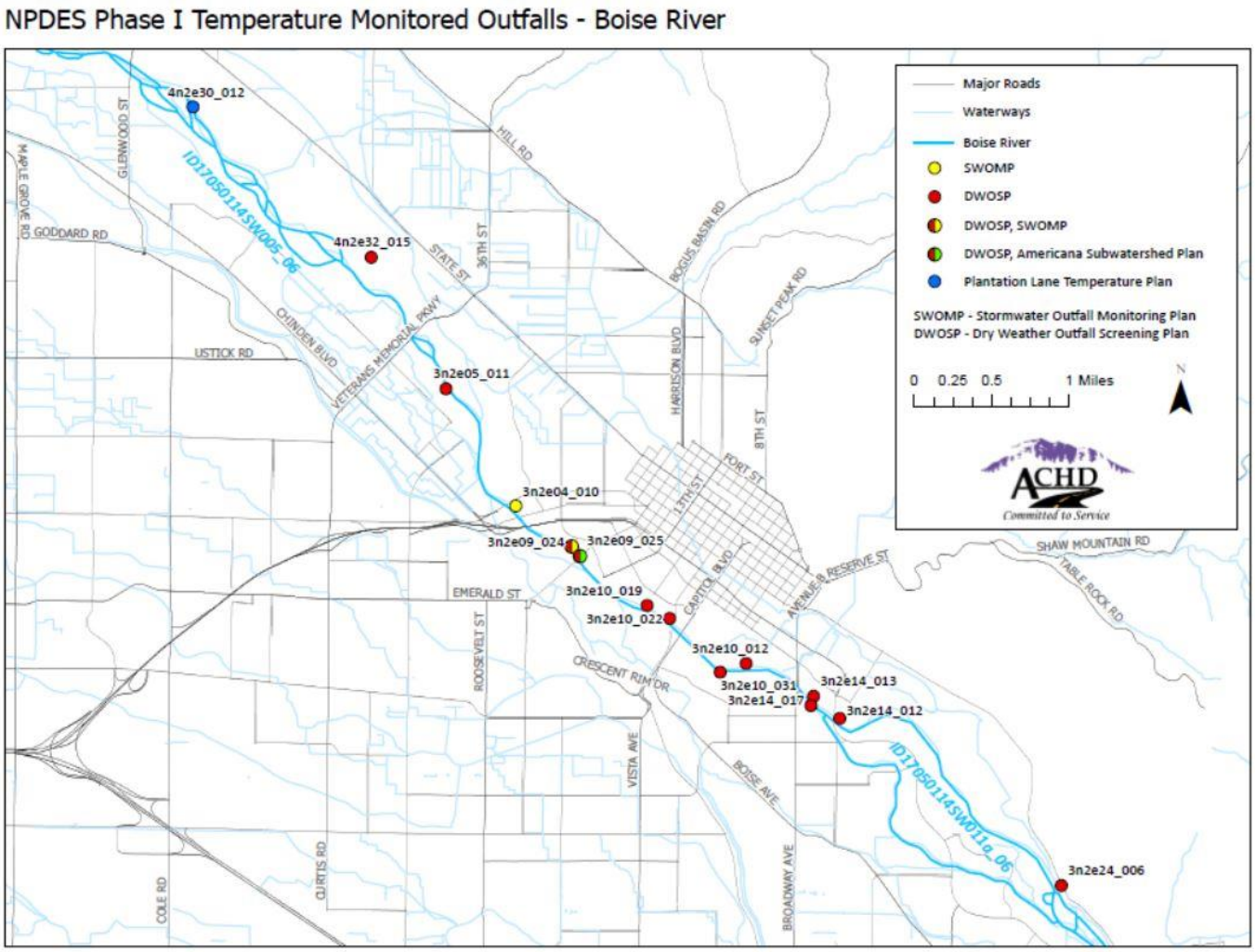



*Figure 1 Temperature Monitored Outfalls*

*Table 1 NPDES Phase I Temperature Monitored Outfalls*

| Outfall ID (Station Name) | Boise River AU | Monitoring Plan | Equipment | Sample Type, Interval | Frequency |
|---|---|---|---|---|---|
| **3n2e04_010 (Main)** | 17050114SW011a_06 | SWOMP | Hach Submerged Area Velocity Sensor | Continuous, 15-minute | During monitored events |
| | | | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | During monitored events |
| **3n2e05_011** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e09_024 (Americana)** | 17050114SW011a_06 | SWOMP | ISCO TIENet 350 | Continuous, 15-minute | Year-round |
| | | | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | During monitored events |
| | | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e09_025 (AS_7)** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| | | Americana Subwatershed | ISCO 2150 Area Velocity Sensor | Continuous, 5-minute | Year-round |
| **3n2e10_012** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e10_019** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e10_022** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e10_031** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e14_012** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e14_013** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e14_017** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **3n2e24_006** | 17050114SW011a_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |
| **4n2e30_012 (Plantation Lane)** | 17050114SW005_06 | Plantation Lane Temperature Plan | HOBO MX2203 | Continuous, 15-minute | Year-round |
| **4n2e32_015** | 17050114SW005_06 | DWOSP | In-Situ AquaTroll 400 In-Situ SmarTroll MP | Discrete | 3x/year, if discharge is present |

# 2. Methods

The method used to obtain all temperature readings, both discrete and continuous, for NPDES Phase I monitoring is EPA 170.1. Continuous samples are collected from a fixed location by equipment that is installed in the invert of the storm drain pipe. Discrete samples are collected from the discharge stream using a hand-held instrument. Detailed information about each equipment type is found in the relevant monitoring plans.

## 2.1 Equipment Inspection and Calibration

Visual inspections of the equipment are completed on a regular basis, during routine maintenance events and data downloads. An annual accuracy check will be performed by comparing the field equipment to a precision thermometer certified by the National Institute of Standards and Technology.

# 3. Data Management

Temperature data will be imported into Seveno DataSight (DataSight), a data management software used for handling data collected from all ACHD stormwater monitoring programs. DataSight provides a safe and secure platform for storing, viewing, validating, and analyzing data.

## 3.1 Data Validation

Raw data will be subject to review on a routine basis. The inspection of temperature trends will include physical logger range limits, practical environmental range units, and rates of temperature change. In the event of suspected erroneous data, the data will be flagged in DataSight using the appropriate flag discussed in QAPP section 4.2.2.

# Appendix A – Plantation Lane Temperature Monitoring Plan

# Plantation Lane Temperature Monitoring Plan

Ada County Highway District

Boise, Idaho

11/22/2022

# Table of Contents

1. Introduction ..... 3
1.1 Basis for Monitoring Plan ..... 3
1.2 Monitoring Plan Objective ..... 3
1.3 Monitoring Plan Elements ..... 3
1.5 Task Organization ..... 4
2. Study Area and Monitoring Location ..... 6
2.1 Site Description ..... 6
3. Methods ..... 7
3.1 Equipment ..... 7
3.1.1 Inspection and Calibration ..... 7
3.2 Data Collection and Management ..... 7
4. Quality Assurance/Quality Control ..... 8
4.1 Data Quality Objective (DQO) ..... 8
4.2 Data Quality Indicators (DQIs) ..... 8
5. Annual Reporting ..... 9
6. References ..... 10
Attachment A - Map ..... 11

# 1. Introduction

## 1.1 Basis for Monitoring Plan

The Environmental Protection Agency, Region 10 (EPA) issued the third cycle National Pollutant Discharge Elimination System (NPDES) Municipal Storm Separate Sewer System (MS4) Phase I Permit No. IDS027561 (Permit) effective October 1, 2021, to Ada County Highway District (ACHD), Boise State University, City of Boise, City of Garden City, Drainage District #3, and Idaho Transportation Department District #3, referred to as the "Permittees." Starting July 1, 2021, the Idaho Department of Environmental Quality (IDEQ) acquired Permit authority through the Idaho Pollutant Discharge Elimination System (IPDES) Program. The Permit authorizes stormwater discharges from MS4 outfalls to waters of the United States in accordance with the conditions and requirements of the Permit. Under this permit, the Permittees are required to monitor temperature in stormwater discharges from the MS4 to the Boise River including assessment units (AU) 17050114SW005_06, 17050114SW005_06a, 17050114SW005_06b, to quantify stormwater impacts to this waterbody (Permit part 4.1).

ACHD has identified outfall '4n2e30_012' to address stormwater temperature monitoring into the Boise River AU 17050114SW005_06. The remaining two AUs listed in the Permit (17050114SW005_06a and 17050114SW005_06b) are outside of the Permit area, and therefore do not have Permittee stormwater contribution.

This Plantation Lane Temperature Monitoring Plan (Plan) has been developed in line with the *Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring* (QAPP) (ACHD, 2021a). The Plan describes the overall approach to monitoring temperature in stormwater discharges and provides site and drainage area details for the monitoring station.

Certain Quality Assurance/Quality Control (QA/QC) procedures that have been identified using EPA guidance for QAPPs are also included in this plan. The QA/QC procedures are designed to ensure data collected meet specific data quality objectives developed specifically for Permit-required monitoring activities. The QC procedures and data management details included in this document are specific to this Plan.

## 1.2 Monitoring Plan Objective

The primary objective, derived from Permit part 4.1, is as follows:

- Quantify the temperature impacts of stormwater discharges from the MS4 to the Boise River AU 17050114SW005_06.

The data collected under this plan will help determine if water temperatures from stormwater discharges comply with temperature criteria for the protection of aquatic life (IDAPA 58.01.02.250.(b),(f)).

## 1.3 Monitoring Plan Elements

This document outlines the Plan's approach and includes specific QAPP elements recommended by the EPA. EPA-recommended QAPP elements are addressed as either program elements or monitoring plan elements.

Monitoring plan elements are described in full in this document, while program elements are addressed in the QAPP. Monitoring plan elements are those components that contain details specific to each

individual monitoring plan. Program elements consist of the standardized monitoring components that all individual monitoring plans developed under the Permit reference. A list of program and monitoring plan elements is included in Table 1.

*Table 1 QAPP Element Document Reference*

| EPA Recommended QAPP Elements | QAPP Element | Plan Element; Section |
|---|---|---|
| **Group A: Project Management** | | |
| A1 – Title and Approval Sheet | x | |
| A2 – Table of Contents | x | x |
| A3 – Distribution List | x | |
| A4a – Project Organization | x | |
| A4b – Task Organization | | x; 1.4 |
| A5 – Problem Definition/Background | x | |
| A6 – Project/Task Description | | x; 1 |
| A7a – Quality Objectives and Criteria for Measurement Data | x | |
| A7b – Method Dependent Criteria for Measurement Data | x | |
| A8 – Special Training Needs/Certification | x | |
| A9 – Documents and Records | x | |
| **Group B: Data Generation and Acquisition** | | |
| B1 – Sampling Process and Design | | x; 2 |
| B2 – Sampling Methods | | x; 3 |
| B3 – Sample Handling and Custody | | n/a |
| B4 – Analytical Methods | | n/a |
| B5 – Quality Control | x | x; 4 |
| B6 – Instrument/Equipment Testing, Inspection, Maintenance | | x; 3.1 |
| B7 – Instrument/Equipment Calibration and Frequency | | x; 3.1 |
| B8 – Inspection/Acceptance of Supplies and Consumables | x | |
| B9 – Non-direct Measurements | x | |
| B10 – Data Managment | x | x; 3.2 |
| **Group C: Assessment and Oversight** | | |
| C1 – Assessments and Response Actions | x | |
| C2 – Reports to Management | x | |
| **Group D: Data Validation and Useability** | | |
| D1 – Data Review, Verification, and Validation | x | |
| D2 – Verification and Validation Methods | x | |
| D3 – Reconciliation and User Requirements | x | |

## 1.5 Task Organization

ACHD is the lead agency for monitoring under the Permit. Key roles and job functions are described in the QAPP. The organization chart for this Plan is presented in Figure 1.

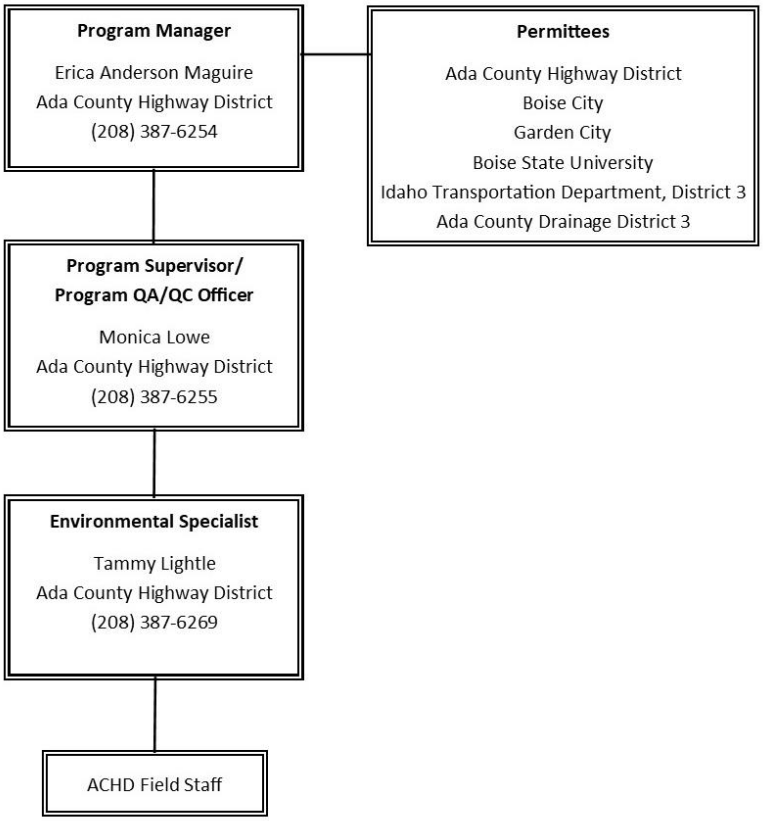



*Figure 1 4n2e30_012 Temperature Monitoring Organization Chart*

# 2. Study Area and Monitoring Location

The Boise River AU 17050114SW005_06 spans from Veterans Memorial Parkway bridge to Star Road bridge. Within this AU, ACHD owns and maintains six outfalls, and the remaining Permittees do not own any.

## 2.1 Site Description

Continuous water temperature monitoring of stormwater discharges will occur at one site within the Boise River assessment unit: outfall 4n2e30_012. The outfall is located at 6553 West Plantation Lane in northwest Boise. Access to the monitoring location is through a manhole located in Plantation Lane. To date, dry weather flows have not been observed from this subwatershed. Monitoring station and associated subwatershed information is provided in Table 2. A map of the monitored subwatershed is provided in Attachment A.

*Table 2 Monitoring Station Information*

| **Outfall ID (Station Name)** | **4n2e30_012 (Plantation)** |
|---:|---|
| **Location** | 6553 W. Plantation Ln. |
| **GPS Coordinates** | 43.657674, -116.270547 |
| **Subwatershed Area** | 22.43 acres |
| **Receiving Water** | Boise River |
| **Assessment Unit** | 17050114SW005_06 |
| **Distance from Station to Outfall** | 331 ft |
| **Pipe Construction** | 18 in, circular PVC |
| **Equipment Location** | In manhole |

# 3. Methods

## 3.1 Equipment

Temperature monitoring will be accomplished using a HOBO® TidbiT® MX2203 temperature logger. The MX2203 has an internal temperature thermistor and two external screws which allow the logger to detect the presence of water. The logger is installed in a fixed location on a mounting band on the invert of the storm drain pipe.

### 3.1.1 Inspection and Calibration

The temperature logger will be visually inspected on a regular basis. An annual accuracy check will be performed by comparing the logger reading to a precision thermometer certified by the National Institute of Standards and Technology. A correction factor will be applied to the logger data if there is a discrepancy between the two temperature readings.

## 3.2 Data Collection and Management

Temperature readings will be collected at 15-minute intervals, logged by the data logger. Additionally, the logger checks for the presence of water every 15 seconds and records an event when the status changes. Data transfer will regularly occur using Bluetooth and a mobile device equipped with the HOBOconnect® application. The data will be imported into Seveno DataSight (DataSight), a data management software used for handling data collected from all ACHD stormwater monitoring programs. DataSight provides a safe and secure platform for storing, viewing, validating, and analyzing data.

# 4. Quality Assurance/Quality Control

Raw data will be subject to review on a routine basis. The inspection of temperature trends will include physical logger range limits, practical environmental range limits, and rates of temperature change. In the event of suspected erroneous data, the data will be flagged in DataSight using the appropriate flag discussed in QAPP section 4.2.2.

## 4.1 Data Quality Objective (DQO)

The DQO for ACHD stormwater temperature monitoring can be summarized by the following statement:

Monitoring efforts will provide data of sufficient quality and quantity in accordance with Permit requirements to characterize the impact of stormwater discharges on the water temperature of the Boise River.

## 4.2 Data Quality Indicators (DQIs)

DQIs have been established to set measurable qualitative and quantitative goals for data acceptance that meet the program DQO described above. Each DQI is summarized below. DQIs are the basis for addressing field and laboratory analytical instrument performance, as well as sample collection and handling procedures.

DQIs are described fully in Section 1.8.1 of the QAPP. A brief description of each DQI is included in the list below.

- Project Required Detection Limits (resolution): Achieving appropriate reported constituent concentration results at values that allow for comparison to baseline data and water quality standards.
- Accuracy: The accuracy of the data is a measure of the extent to which a measured value represents the true value.
- Representativeness: Representativeness is a measure of the extent of the degree to which data accurately and precisely indicate environmental conditions.
- Comparability: The comparability of a data set is the extent to which data accurately and precisely indicate environmental conditions.
- Completeness: Completeness is a comparison between the amount of usable data collected versus the total amount of data collected.
- Sufficiency: Data set sufficiency is the amount of data required to perform the level or type of analysis necessary for each monitoring element.

The target values for these indicators are listed in Table 3 below.

*Table 3 Data Quality Indicator Targets*

| Constituent | Analytical Method | Resolution | Accuracy |
|---|---|---|---|
| Temperature | EPA 170.1 | 0.01°C | ±0.25 °C from -20°C to 0°C<br>±0.2°C from 0°C to 70°C |

## 5. Annual Reporting

A summary of stormwater temperature data from outfall 4n2e30_012 will be included in the MS4 Annual Report Form (NPDES Phase I Permit Appendix B) submitted to IDEQ annually. This summary will include a graph of the water temperature data collected during the reporting period (October 1 – September 30).

# 6. References

Ada County Highway District. (2021a). *Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring.*

Ada County Highway District. (2021b). *Stormwater Outfall Monitoring Plan*.

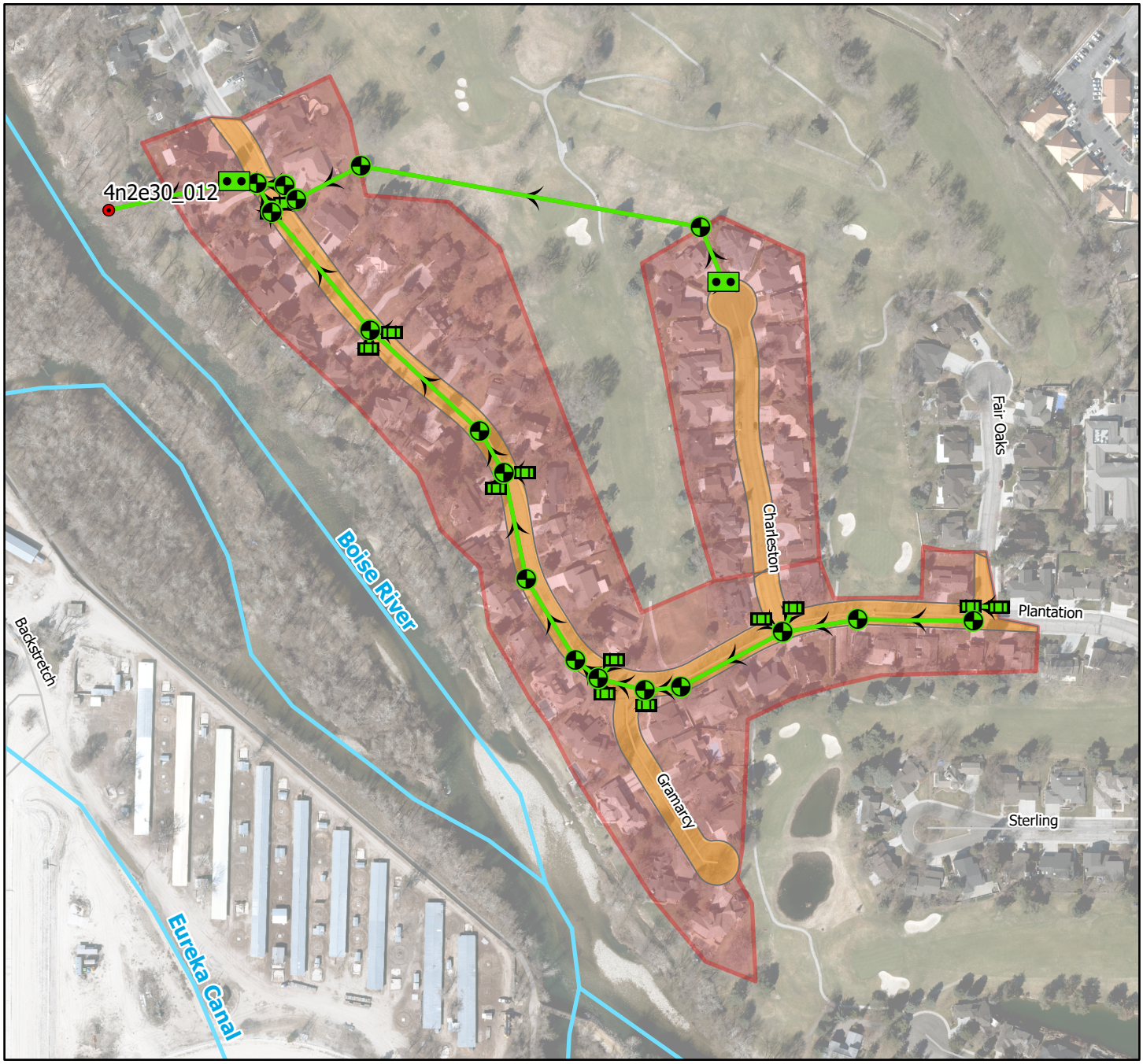
Code of Federal Regulations. (2022). *40 CFR Part 136.* Retrieved from https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136.

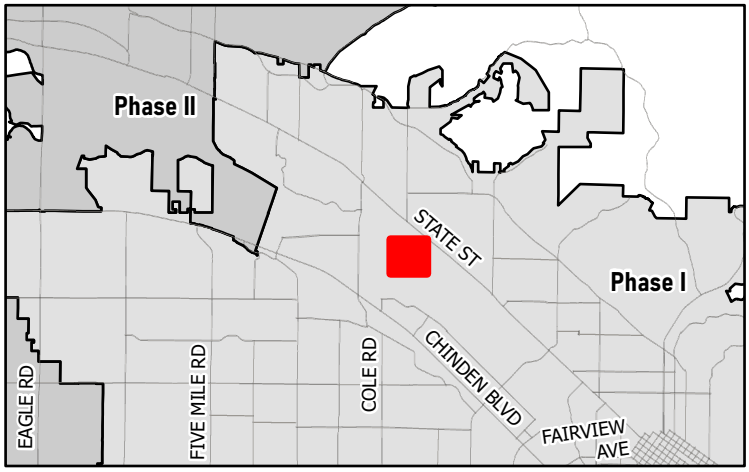
Idaho Department of Environmental Quality. (2022). *58.01.02 – Rules Regulating the Idaho Pollutant Discharge Elimination System Program.* Retrieved from https://adminrules.idaho.gov/rules/current/58/580125.pdf.

Onset Computer Corporation. (2017-2021). *HOBO® TidbiT® MX Temp 400 (MX2203) and Temp 5000 (MX2204) Logger Manual.* Retrieved from https://www.onsetcomp.com/sites/default/files/resources-documents/21537-M%20MX2203%20and%20MX2204%20Manual.pdf.

# Attachment A - Map

# Plantation Lane Monitoring Station (outfall 4n2e30_012)




Outfall
Storm Drain Inlet
Storm Drain Manhole
Sand and Grease Trap
Storm Drain Pipe
Waterways
Roadway
Right-of-Way Drainage = 3.19 Acres
Drainage Area = 22.43 Acres

N

0 125 250 500 Feet

ACHD
Committed to Service

2025 Attachment - WY25 Stormwater Pollution Hotline Summary

Hot Line Calls

1/15/25 Karon Rush 208-519-5000 (LRGO Survey) 2415 S. Scarlet
Asked what easement on property Scarlet St
Lot is empty now. The property backs up to Ridenbaugh
Canal. I said 48' hill and 18' downside. He said that was
close enough.

4/3/25 PLS Management 208-519-5900
Conserning easement @ 690 Industry Park, Meridian
Called & Rid this was not my district.

7/23/25 I was stopped on Chrisway by 2 people concerned about
water level on Drain A. Behind their houses. The level was
from BSH, new irrigation system. And that would be the normal
level. It shouldn't get any higher than that.

10/23/25 Tom Baker 208-995-7374
1600 Chrisway
A tree has fallen in ditch behind the house. We decided
to clear it out when water is out in Nov.

10-3-25

ACHD RENZ 208-860-6620

2133 W BOISE AVE Overflowing on road draining at Bubbling Creek

called Renz back to maybe get a pump truck here. But big rain all week. So they are backed up

MASTER ROOTER - 208 922 6684

~~[redacted]~~

MARK FISHER

TALK TO MIKE HARRISON TO SEE if he can slow water down. He's going to try and do what he can.

10-7-25

I have checked water it has gone down 2'. I will my tree to help clear culvert. when water is shut off. So we can clear debre and silt around intake side of culvert.

2025 Attachment - DD3 Manager, Dean Callen, Inspection Logs

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: Oct 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 10/7 | 2.5 | DRAIN A | |
| | | Victory St. Cleared trap Dundee St, Garfield St. | |
| | | BSU Tennis Ct. Boise Ave water real it's backed | |
| | | up 2' deep Martha St. Cleared trash rack. | |
| | | DRAIN B | |
| | | William Park Area Cleared trash grate | |
| | | All flowing well | 27 |
| 10/9 | 1.5 | meet with Premier tree service and | |
| | | Timberline tree serice to remove trees and | |
| | | shrubs. On DRAIN A. across from LDS Church. | |
| | 2 | Cleared trash grate DRAIN A and cut down | |
| | | small trees, clean trash and limbs around trash | |
| | | grate. | 23 |
| 10/14 | 1 | ~~Meet~~ Met with BSU, engineers. On drain | |
| | | A. about replaceing CM Pipe. So to build new | |
| | | housing | |
| | 2. | Cleaned trash grate at Boise Ave and Martha St. | 23 |
| 10/15 | 2.5 | Met with Tyler @ SAV A Tree. To get bid for | |
| | | Tree removal at 2155 W Boise Ave. | |
| | | Cleaned trash grate DRAIN A Boise Ave | |
| | | DRAIN B Williams Park | 27 |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CULLEN PAYROLL PERIOD ENDING: Oct 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 10/18 | 2.5 | DRAIN A | |
| | | Victory St, BSU Tennis Courts, Boise Ave and | |
| | | Martha St. Very little to no water. All grates | |
| | | are clean | |
| | | DRAIN B | |
| | | Williams Park Area | |
| | | All grates clean | 27 |
| 10/25 | 2.5 | DRAIN A & B | |
| | | SAME AS ABOVE | 27 |
| 10/30 | 3.0 | DRAIN B | |
| | | Williams Park Area | |
| | | Lots of leaves cleared trash grate; Very | |
| | | little water. | |
| | | DRAIN A. | |
| | | No water Victory Ln, Duncee St, Garfield St. | |
| | | BSU Tennis Courts; Boise Ave cleared cutdown | |
| | | Box Elder volunteers to near tree to be removed | |
| | | Martha St. trash grates cleaned. | 27 |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: Nov 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 11/1 | 2.5 | DD3 meeting | |
| | 1.5 | Check on tree removal on W Boise. Cleaned | |
| | | trash grate. Drain A. | |
| | | Martha St Garfield St. and Victory St. All grates | |
| | | cleared. No water | |
| | | Drain B | |
| | | Williams Park Area | |
| | | Cleared trash rack. | 27 |
| 11/5 | 3 | Drain A | |
| | | Victory St., Dundee St., Garfield St., BSU Tennis | |
| | | Court., Boise Ave, and Martha St Very little water | |
| | | Clear Leaf and trash around grates. | |
| | | Drain B | |
| | | Williams Park Area | |
| | | Lot of Pine needles and leaves at Williams Park | |
| | | ~~Sand~~ Very little water. All is good | 27 |
| 11/5 | 2.5 | Same as above | 27 |
| | | | |
| | | | |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: Nov 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 11/8 | 2.5 | DRAIN A | |
| | | Victory ST, Garfield St, Dundee St, BSU | |
| | | Tennis Courts, Boise Ave and Martha St. | |
| | | Very little to NO water. Cleared all grates | |
| | | DRAIN B | |
| | | William Park Area, Apple St to Pennsylvania St. | |
| | | All grates are clear. Water flowing good. | 27 |
| 11/12 | 2.5 | DRAIN A & B | |
| | | SAME AS ABOVE | 27 |
| 11/15 | 3.0 | Cleared small trees on DRAIN A at Boise Ave | |
| | | All DRAINS SAME AS ABOVE | 27 |
| 11/18 | 2.5 | DRAIN A & B | |
| | | SAME AS ABOVE | 27 |
| 11/25 | 2.5 | DRAIN A & B | |
| | | SAME AS ABOVE | 27 |
| 11/29 | | DRAIN A | |
| | | ~~NEAR~~ AT 2155 W Boise Ave needs small tree trim | |
| | | Victory St, Dundee St, Garfield St, BSU Tennis | |
| | | Courts looks good. No water. Martha St. low | |
| | | water. Flowing well. | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: Dean Callen PAYROLL PERIOD ENDING: Nov 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 11/29 | 2:15 | Drain B | |
| | | Williams Park Area cleaned trash grates. Ditch | 27 |
| | | is flowing well. | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: Dec 2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 12/3 | 2.4 | DRAIN A | |
| | | Victory St, Dundee St, Garfield St, BSU Tennis | |
| | | Courts, W. Boise Ave and Martha St. No to | |
| | | very little water. Cleaned all trash grates | |
| | | DRAIN B | |
| | | Williams Park Area | |
| | | Alls good. | 24 |
| 12/6 | 2.5 | DRAIN A & B | |
| | | Same as above | 24 |
| 12/10 | 2.5 | DRAIN A & B | |
| | | No change Same as above | 24 |
| 12/13 | 3 | DRAIN A | |
| | | Victory St, Dundee St, Garfield St, BSU Tennis | |
| | | cleared trash grates. Boise Ave cleared 7 small | |
| | | trees across LDS Church. Martha St. Clear grates | |
| | | DRAIN B | |
| | | Williams Park Area ~~Cleared~~ Cleared trash grate | |
| | | checked ditch from Albertsons west. Water is | 27 |
| | | flowing good. what water there is. | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: 12/2024

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 12/17 | 3.5 | DRAIN A | |
| | | Victory St, Dundee St, Garfield St, BSU Tennis | |
| | | courts, Boise Ave and Martha St. Big rain this | |
| | | week end. Lots of ~~be~~ trash and leaves. Cleaned all | |
| | | trash grates | |
| | | DRAIN B. | |
| | | William Park Area | |
| | | Cleaned some broken branchs and cleaned | 27 |
| | | trash grates | |
| 12/20 | 2 | DRAIN A | |
| | | Victory St, Dundee St, Garfield St, | |
| | | Boise Ave, Martha St. Cleared trash grates | |
| | | DRAIN B | |
| | | Williams Park Area | |
| | | Check and clear trash grates | 25 |
| 12/24 | 2 | DRAIN A & B | 25 |
| | | SAME AS ABOVE | |
| 12/24 | 4 | Online classes MS4 credit | |
| 12/26 | 6 | Online classes Storm water Management | |
| 1 | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: DEC 2021

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 12/27 | 3 | DRAIN A | |
| | | VICTORY ST, DUNDEE ST, GARFIELD ST, BSU TENNIS | |
| | | ~~CLEAR~~ COURTS, BOISE AVE, AND MARTHA ST, | |
| | | LOTS of RAIN, All TRASH GRATE BACKED UP. CLEARED | |
| | | All TRASH GRATES | |
| | | DRAIN B | |
| | | WILLIAM PARK AREA | |
| | | CLEARED lots of TRASH from GRATES | 27 |
| 12/3 | 2.5 | DRAIN A & B | |
| | | SAME AS ABOVE | 27 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN [redacted] CALLEN PAYROLL PERIOD ENDING: JANUARY 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 1/7 | 2.5 | DRAIN A | |
| | | Victory St, Garfield St, BSU tennis courts, | |
| | | Boise Ave and Martha St. | |
| | | No water or very little. Clean-up around | |
| | | grates, | |
| | | DRAIN B | |
| | | Williams Park Area. | |
| | | Leaves and Pine needles at the grates most | |
| | | time. All cleared. Ditch is flowing good. | 27 |
| 1/10 | 2.5 | Same as above | 27 |
| 1/15 | 2.5 | No change | 27 |
| 1/22 | | DRAIN A. | |
| | | Victory St, Dundee St. BSU. Tennis Court | |
| 1/25 | | DRAIN A | |
| | | Boise Ave, Martha St. | |
| | 2.5 | DRAIN B | |
| | | Williams Park and Boise Ave Area | |
| | | Cleaned all grates that's needed. All ditches | |
| | | with water flowing good. | 27 |
| 1/29 | 2.5 | DRAIN A. not much water if any NO CHANGE | |
| | | DRAIN B Williams Park ditchwater cleaned | grate |

CHECK FENCE WHEN IN AREA

27 miles

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: FEBRUARY 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 2/3 | 3 | DRAIN A | |
| | | Victory St, Dundee St, ~~ERA~~ Garfield St, | |
| | | BSU Tennis Ct, W Boise Ave and Martha St. | |
| | | Cleared all trash grates. Lots of trash and | |
| | | leaves. | |
| | | DRAIN B | |
| | | Williams Park Area. Rain over week | |
| | | end. Cleared pine needles. All flowing good | 27 |
| 2/7 | 2.5 | DRAIN A SAME AS ABOVE | |
| | | DRAIN B All ditches flow as good as can. Lots | |
| | | of snow. | 27 |
| 2/12 | 2.5 | DRAIN A & B SAME AS ABOVE | |
| 2/15 | 2.5 | DRAIN A+B unchanged. Snow has cover | |
| | | most ditches. All is good. | 27 |
| 2/18 | 3 | DRAIN A | |
| | | Victory St, Garfield St, BSU Tennis Ct, | |
| | | Boise Ave and Martha St. Good rain last couple | |
| | | days. All grates cleared. | |
| | | DRAIN B | |
| | | Williams Area. Leaves and pine needle | |
| | | back up. All trash grates cleared | 27 |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: FEB 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 2/21 | 2.5 | DRAIN A | |
| | | Victory St, Garfield St, Boise Ave and | |
| | | Martha St. Not much changed. Some | |
| | | Leaf build up. All trash grates cleared | |
| | | DRAIN B | |
| | | William Park Area | |
| | | Cleaned trash grates | 27 |
| 2/25 | 2.5 | DRAIN A & B | |
| | | No Change | 27 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: MARCH 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 3/4 | 2.5 | DRAIN A | |
| | | Victory St, Garfield St., BSU Tennis Ct. | |
| | | Boise Ave. Very little water. Victory and | |
| | | Martha St. only trash grate needed cleared | |
| | | DRAIN B | |
| | | Williams Park Area | |
| | | Trash grate cleaned, All ditches flowing well | 27 |
| 3/7 | 2.5 | DRAIN A & B unchanged | 27 |
| | | | |
| 3/10 | 2.5 | DRAIN A & B unchanged | 27 |
| | | | |
| 3/13 | 2 | Monthly DD3 meeting | |
| | 1.5 | DRAIN A & B unchanged | 27 |
| 3/19 | 4 | DRAIN A | |
| | | Victory St., Garfield St. Cleared trash grates | |
| | | BSU Tennis Cts. Boise Ave, and Martha St. unchanged | |
| | | DRAIN B | |
| | | Williams Park Area. Cleared trash racks | |
| | | Checked water level on N. Church. It doesn't | |
| | | register at 12' | 28 |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: MARCH 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 3/22 | 3 | DRAIN A | |
| | | Victory St. Garfield St. BSU Tennis Courts | |
| | | Boise Ave. And Martha St. Very little to no | |
| | | water. All trash grate clean | |
| | | DRAIN B | |
| | | ~~Pipe has collapse~~ A section of pipe collapsed | |
| | | between D&B on Boise Ave and Apple St. It has | |
| | | been covered and salty tape put around | |
| | | hole. We're having meeting monday. On who | |
| | | And how to move forword. Williams Park area | |
| | | ok and cleared trash grates. | 27 |
| 3/24 | 1.5 | DRAIN B behind D&B on Boise Ave | |
| | | Pipe ~~collapse~~ collapsed. Met with Chairman | |
| | | Sweet (DD3), Keith & Catrina Collier Property, | |
| | | Colbin (QRS) Mike Harris South Boise Water, | |
| | | And Master Rooter. All to assess the problem. | |
| | | Master Rooter will run a camera down pipe | |
| | | on 3/31 and Let All know what's going on. | 18 |
| 3/31 | 2.5 | DRAIN A & B nothing has changed | |
| | | All trash grates cleared | 27 |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: Dean Callen PAYROLL PERIOD ENDING: April 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 4/1 | 2.5 | DRAIN A. | |
| | | NO WATER ON ditches. TRASH grate all CLEARED | |
| | | DRAIN B | |
| | | WILLIAMS PARK AREA | |
| | | VERY WATER ALL TRASH grate CLEARED | 27 |
| 4/11 | 3.5 | MET with Tige SKAAR SKAAR WETLAND | |
| | | Solution. NEED to HAVE ditch AREA CLEARED | |
| | | from fallen TREE AND CLEAR SMALL SUCKER TREES. | |
| | | DRAIN A & B | |
| | | NO CHANGE | 27 |
| 4/15 | 2.5 | DRAIN A | |
| | | VERY little WATER. Victory St, BSU TENNIS Ct, | |
| | | Dundee St, WATER AT 2133 to 2159 W Boise is | |
| | | 1' OVER trash grate AND RISING. Can't get to | |
| | | TRASH grate. MARTHA St. OK CLEANED TRASH grate. | |
| | | DRAIN B | |
| | | William PARK AREA. VERY little WATER. | |
| | | CLEANED TRASH grates. No REPAIR yet ~~@ Bobs~~ | |
| | | behind D & B. Can't find pipe to match. | 27 |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: April 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 4/18 | 2.5 | No Change on DRAIN A & B All GRATES CLEANED | 27 |
| 4/21 | 2.5 | No Change DRAIN A & B | 27 |
| 4/24 | 2.5 | No Change DRAIN A & B | 27 |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: MAY 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 5/2 | 2.5 | DRAIN A | |
| | | Victory St, Garfield St, BSU Tennis Court, Boise Ave. And Martha St, Boise water is to high to reach trash grate. ALL other trash grates cleared. All waters flowing well. | |
| | | DRAIN B | |
| | | Williams Park Area. Trash grates cleared. No change on ditch behind D+B. They Collier Property is going to put fence around the cave in. | 27 |
| 5/5 | 2.5 | No Changes on Drain A or | 27 |
| 5/8 | 2 | ~~DDS~~ DD3 monthly meeting | |
| | 1.5 | Checked drain A+B No change. water flowing well. | 27 |
| 5/13 | 2.5 | No Change drain A+B | 27 |
| 5/16 | 2.5 | No change drain A+B | 27 |
| 5/20 | 2.5 | No Change drain A+B | 27 |
| 5/23 | 2.5 | No change drain A+B very little trash @ grate | 27 |
| 5/27 | 2.5 | No change on drain A+B | 27 |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: ~~May~~ June 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| ~~6~~/2 | 2.5 | DRAIN A | |
| | | Victory St. Garfield St, BSU Tennis Court, Boise Ave | |
| | | MARTHA St. Boise still not flowing very good. Due to | |
| | | CULVERS plugged or Collapseing. | |
| | | DRAIN B | |
| | | Williams Park AREA. All is good water flow. | |
| | | Culver behind D+B on Boise Ave. Still not Fixed | 27 |
| 6/6 | 2.5 | Do much hus on DRAIN A+B WATER LEVEL ~~has~~ drop. All grates are clean | 27 |
| 6/10 | 2.5 | No change one DRAIN A&B | |
| | | All grates were clean | 27 |
| 6/12 | 2 | Monthly ditch meeting | |
| | 2 | No change on DRAIN A+B | 25 |
| 6/17 | 2.5 | No change on DRAIN A+B water flowing good | |
| | | No TRASH on any grate | 27 |
| 6/20 | 2.5 | No change on A&B | 27 |
| 6/30 | 2.5 | No change on A+B | 27 |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: Dean Callen PAYROLL PERIOD ENDING: July 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 7/1 | 2.5 | Drain A | |
| | | Victory St, Garfield St, Dundee St, Martha. | |
| | | Boise Ave near LDS Church, water is 1" above | |
| | | culverts. Water is flowing good. All grates cleared | |
| | | Drain B | |
| | | Williams Park area. | |
| | | All ditches flowing well. Even behind D+B on | |
| | | Boise Ave + Apple | 27 |
| 7/3 | 2.5 | Drain A+B No Change | 27 |
| 7/7 | 2.5 | " " | 27 |
| 7/10 | 1 | DRB Meeting | |
| | 2.5 | Drain A+B No change | 27 |
| 7/15 | 2.5 | Drain B No change | |
| | | Drain A Had to clear path to get to Victory St. | |
| | | trash grate. All other trash grates cleared. | 27 |
| 7/18 | 2.5 | Drain A+B unchanged clear trash grates | 27 |
| 7/21 | 2.5 | No change on Drain A+B Trash grates all | |
| | | clear. | 27 |
| 7/24 | 2.0 | ~~B+~~ No change on Drain A+B | 25 |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: July 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 7/28 | 2.5 | No Change on drains A & B. Water still high on A. All drains are running good, grates all clean | 27 |
| 7/31 | 2.5 | No Change o drains A & B | 27 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: Dean Callen PAYROLL PERIOD ENDING: Aug 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 8/1 | 2.5 | Drain A | |
| | | Victory St, Dundee St., Barfield St, Boise Ave | |
| | | still has high water and Martha St. Not much water | |
| | | on other areas, All trash grates cleaned. | |
| | | Drain B | |
| | | Williams Park Area & Boise Ave. Nothing going on | |
| | | around fallen in area behind D+B. All trash grates | |
| | | cleared. Water is flowing good. | 27 |
| 8/5 | 2.5 | No change Drain A+B | 27 |
| 8/8 | 2.5 | No change Drain A+B | 27 |
| 8/12 | 2.5 | No change Drain A+B | 27 |
| 8/14 | 2 | DD3 monthly meeting | |
| 8/14 | 1½ | No change Drain A+B | 27 |
| 8/20 | 2.5 | No change Drain A+B | 25 |
| 8/21 | 3.5 | Meeting with Viola to see where discharge | 25 |
| | | Ports | |
| 8/25 | 2.5 | All drains A+B flowing well. Trash grates | |
| | | clear | 25 |
| 8/28 | 2.5 | No change ditch A+B | 25 |
| | | | |
| | | | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLEN PAYROLL PERIOD ENDING: SEPT 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 9/2 | 2.5 | DRAIN A | |
| | | Victory St, Dundee St, Garfield St. BSU tennis | |
| | | Courts, Boise Ave and Martha St. All flowing well | |
| | | Water high Boise Ave and Martha St. All ok | |
| | | DRAIN B | |
| | | Williams Park Area | |
| | | Normal flowing. No work behind D+B yet | 25 |
| 9/8 | 25 | DRAIN A+B | |
| | | no change All is flowing well | 25 |
| 9/11 | 1.5 | DD3 monthly meeting. | |
| | | DRAIN A+B | |
| | 2 | No Change | 25 |
| 9/15 | 2.5 | DRAIN A | |
| | | Victory Rd, Dundee St, Garfield St. and BSU TENNIS | |
| | | Court. Are flowing well all grate have been cleaned | |
| | | Boise Ave thru. Martha St. are running high. Because | |
| | | of BSU over flow on their system. It's all normal | |
| | | for now | |
| | | DRAIN B | |
| | | All is flowing well. No work collapsed culvet | 25 |
| | | behind B&D. All grate checked and cleared. | |

# DRAINAGE DISTRICT NO. 3

## MONTHLY TIME SHEET

NAME: DEAN CALLER PAYROLL PERIOD ENDING: Sept 2025

| DATE | TIME | DESCRIPTION OF ACTIVITIES | MILES |
|---|---|---|---|
| 9/18 | 3 | DRAIN A | |
| | | NO CHANGE ALL FLOWING WELL | |
| | | DRAIN B | |
| | | NO CHANGE | |
| | | CHECKED WELL ON NO. CHURCH. WATER IS | |
| | | BELOW 8' FROM GRADE. | 25 |
| 9/22 | 2 | DRAIN A | |
| | | NO CHANGE ALL GRATES CLEARED | |
| | | DRAIN B | |
| | | NO CHANGE | 25 |
| 9/29 | 4 | DRAIN A + B | |
| | | UNCHANGED | |
| | | DRAIN C | |
| | | IS PIPED UNDER GROUND | |
| | | DRAIN D | |
| | | IS PIPED UNDER GROUND | |
| | | DRAIN B-1 | |
| | | IS FLOWING GOOD TO THE OUTFALL TO BOISE RIVER | |
| | | DRAIN A THRU E | |
| | | ARE TAKEN CARE OF FROM BOISE PARKS + REC | |
| | | THEY ALL ARE FLOWING WITH NO PROBEMS | 21 |

# 2025 Attachment O - ACHD Spill Response Plan

ACHD
connecting you to more



# ACHD SPILL RESPONSE PLAN

March 2025

# Table of Contents

1.0 Purpose ..... 2
2.0 Definitions ..... 2
3.0 Key Spill Response Principles ..... 2
4.0 ACHD Staff Spill Response Roles and Responsibilities ..... 4
4.1 Overview ..... 4
4.2 Administrative Assistant ..... 4
4.3 On-Call Supervisor ..... 4
4.4 Maintenance Superintendent ..... 5
4.5 Environmental Specialist ..... 5
4.6 Facilities & Safety Manager ..... 6
4.7 Safety & Training Specialist ..... 6
4.8 Field Staff ..... 7
5.0 Waste Disposal ..... 7
5.1 ACHD known spills in the ROW ..... 8
6.0 Documentation and Reporting ..... 8
6.1 What Spills are Documented? ..... 8
6.2 Documentation Process ..... 9
6.3 Hazardous Waste Records and Retention ..... 9
6.4 State and Federal Reporting Requirements ..... 9
7.0 Cost Recovery ..... 10
8.0 Training ..... 10
8.1 First Responder Awareness Level ..... 11
8.2 First Responder Operator Level ..... 11
8.3 Spill Response Plan Training ..... 12
Appendix A: Spill Policy
Appendix B: Flow Chart
Appendix C: Contacts
Appendix D: Adams and Cloverdale Areas
Appendix E: Illicit Discharge Form
Appendix F: Damage Claim Form
Appendix G: Incident Response Classifications
Appendix H: Homeland Security Form

## 1.0 Purpose

The purpose of this document is to provide Ada County Highway District (ACHD) staff guidance on responsibilities, operating procedures, implementation, and training, associated with spill response in the ACHD right-of-way (ROW) by ACHD staff or ACHD contractor. The ACHD Spill Response Plan (Plan) outlines how ACHD will implement the *ACHD Policy for Right-of-Way Spill, Container, and Debris Response, Resolution 2152* (Spill Policy), located in Appendix A. The Plan will be amended as needed to ensure the information is current, relevant and applicable to ACHD spill response activities and consistent with the Spill Policy. Any changes to the Spill Policy must be approved by the ACHD Commission.

## 2.0 Definitions

For this Plan and the Spill Policy the following definitions apply.

**Hazardous Substance** – Liquid or solid material or waste that poses an immediate health or safety risk to people, i.e., strong corrosives, strong oxidizers, radioactive material, flammable, explosive, etc. ***An unknown substance is presumed to be hazardous.***

**Pollutant Waste** – Liquid or solid waste that is not health or life threatening but poses an unreasonable risk to the environment, i.e., oil, gas, antifreeze, non-lead paint, etc.

**Common Waste** – Solid waste that can be disposed of at the local landfill without any special considerations, i.e., household waste, construction waste, debris, etc.

**Household Hazardous Waste** – Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients.

**Critical Spill** – Any spill where vapors, smoke, dead or injured animals or people at the site of the spill or have any reason to believe the material is a hazardous substance.

**Moderate Spill** –Any release of a known pollutant waste over 25 gallons, pollutant waste that enters the stormwater drainage system, petroleum spills that cause a visible sheen on navigable waters, or petroleum spills that impact soils. Quantity is generally categorized as large.

**Incidental Spill** – Any release of known common waste, or pollutant waste that is less than 25 gallons total. Quantity is generally characterized as small.

**Spiller** – The person responsible for causing the spill to occur.

**Safe Zone** – Contamination-free zone established away from the spill where emergency operations can be directed and supported.

## 3.0 Key Spill Response Principles

Every spill response incident will vary. ACHD staff response is directly related to the nature of the spill or container and the quantity of the spilled material. The purpose of this section is to

provide ACHD staff general guidance that applies to most spills and containers in the ACHD ROW and direction based on ACHD's Spill Policy. A laminated flow chart is provided in all vehicles as a quick reference (also located in Appendix B).

ACHD's **Key Response Principles** are:

- **Level of response is based on type and amount of waste and personnel level of training**

- Identify Spill Classification:
  - **Incidental Spill** (common waste or small quantities of pollutant waste)
  - **Moderate Spill** (known pollutant waste over 25 gallons, pollutant waste that enters the stormwater drainage system, petroleum spills that cause a visible sheen on navigable waters, or petroleum spills that impact soils)
  - **Critical Spill** (hazardous substances that may be an immediate threat to public health - ***an unknown substance is presumed to be hazardous*****)**

- **Containers are presumed to contain hazardous materials. DO NOT REMOVE ANY CONTAINER in the ROW**. All containers in the ROW (unless placed there by a known party) will be picked up by a contractor dispatched by ACHD. Small quantities of household hazardous waste can be disposed of at the Ada County Landfill or mobile collection sites **by residents** of Ada County if they assume responsibility of the container. Note: ACHD cannot dispose of household hazardous waste at the Ada County Landfill.

- **Stay in the "safe zone" and do not get directly involved in hazardous spill cleanup.**

- **Maintenance On-Call Supervisors (Crew Chiefs and Lead Workers) may direct or participate in defensive measures in the "safe zone"** to prevent hazardous substances from entering the stormwater drainage system only if such measures are essential to prevent contamination of the stormwater drainage system and no other public or private resources are immediately available.

- **Always attempt to identify the spiller or owner of the container and advise on proper disposal.**

- **Qualified contractors will be hired for cleanup and disposal of all spills in the ROW where the responsible party is unknown.**

- General precautions and actions include:
  - **Stay uphill and upwind**
  - **Advise those at the scene to stay back, at a safe distance from spill**
  - **Follow documentation and notification procedures (Section 6)**
  - **Assist in traffic control as necessary**

# 4.0 ACHD Staff Spill Response Roles and Responsibilities

Spill response is an activity that may involve numerous ACHD staff, primarily from the Maintenance Department and the Environmental Department. This Plan applies to spills in the ACHD ROW. If a spill occurs outside of the ROW, contact the proper authority based on jurisdiction (i.e., City of Boise, Ada County etc.). Refer to Appendix C for contacts. For spills that occur in ACHD Maintenance yards, please contact the Environmental Programs Coordinator. The Environmental Specialist can help determine the proper authority, if needed.

## 4.1 Overview

Roles and responsibilities for spill response vary based on staff expertise, position duties within the ACHD organization, level of training, and the time and day of the spill response. The following are the roles and responsibilities of the ACHD staff involved with ACHD spill response.

## 4.2 Administrative Assistant

The Administrative Assistant is the first point of contact for critical and moderate spills within ACHD ROW during normal office hours 8:00 AM-4:30 PM. The Administrative Assistant at Cloverdale or Adams should be the first to become notified of a spill from the public or field personnel requesting assistance. The Administrative Assistant first call will be to the Maintenance Superintendent and should they not be available to the most available Crew Chief or Lead Worker to proceed through the Plan protocols. The Administrative Assistant has the following responsibilities.

- Receives, responds, and routes calls from the public regarding concerns about the storm drain system and ROW.
- Assists the Maintenance Superintendent, Crew Chief or Lead worker responding to a spill as needed i.e., completion of Illicit Discharge Form, dispatching additional Crew Chiefs or Lead Workers, providing a purchase order number to Maintenance Superintendent, Crew Chief or Lead Worker if contractor is hired for cleanup.

## 4.3 On-Call Supervisor

The On-Call Supervisor is the first point of contact for critical and moderate spills within ACHD ROW after hours and holidays (before 8:00 AM and after 4:30 PM). ACHD Lead Workers and Crew Chiefs serve in the On-Call Supervisor role on a scheduled rotating basis. The On-Call Supervisor's responsibilities are divided according to location into northeast Ada County (Adams On-Call Supervisor) and southwest Ada County (Cloverdale On-Call Supervisor). A map of the designated areas is in Appendix D. An On-Call Supervisor is designated each week for Cloverdale and Adams and is available 24 hours a day. Each Tuesday at 8:00 AM a new Lead Worker or Crew Chief is assigned the On-Call Supervisor responsibility for the week. The contact numbers for the On-Call Supervisor at Cloverdale and Adams are the same two numbers regardless of the person on duty. These numbers are listed on the Spill Response Flow Chart, Appendix B as well as Contacts,

Appendix C. In addition to a designated cell phone, an on-call bag with this Plan is transferred each week to the On-Call Supervisor.

After business hours, the On-Call Supervisor has all the responsibilities of the Maintenance Superintendent. The On-Call Supervisor also has the following responsibilities:

- Serves as initial point of contact for spills occurring after hours and holidays.
- Initiates call to 911 and Idaho State Communication Center (State Comm) for moderate and critical spills and coordinates with the Maintenance Superintendent.
- Requests additional reinforcements as needed (i.e., additional Maintenance Superintendent, Crew Chiefs, Lead Workers, etc.).
- Contacts environmental contractor if needed; works with responsible party to ensure proper cleanup.
- Ensures all documentation is complete and forwarded to appropriate parties; Sends group text message to ACHD staff (see Appendix C) if ACHD equipment or environmental contractor are used for cleanup; and
- Briefs Maintenance Superintendent, as needed.

## 4.4 Maintenance Superintendent

The Maintenance Superintendent is responsible for the operation of ACHD's respective Maintenance Section. Maintenance Superintendent responsibilities are divided between Cloverdale, and Adams. In addition, the Maintenance Superintendent has the following responsibilities:

- Provides assistance and guidance to On-Call Supervisor during Critical Spills and Moderate Spills.
- Participates in State Comm initiated bridge calls, if needed.
- Authorizes contracting of environmental cleanup services.
- Requests additional reinforcements and expertise as needed i.e., additional Maintenance Superintendent, Crew Chiefs, Lead Workers, Environmental Specialist, etc.
- Oversees complete cleanup of critical spills from start to finish; and
- Ensures all documentation (including Damage Claim Form and Hazardous or Non-Hazardous Waste Manifests, if applicable) is complete and forwarded to appropriate parties.

## 4.5 Environmental Specialist

The Environmental Specialist is responsible for working with Maintenance Superintendent, Facility & Safety Manager, and Safety & Training Specialist to update the Spill Response Plan as needed. In addition, the Environmental Specialist has the following responsibilities:

- Provides guidance on proper spill cleanup procedures.

- Provides training on the Plan annually.
- Coordinates with the Safety & Training Specialist to ensure NPDES required training elements on spill response and illicit discharge are met; and
- Tracks and compiles all spill response actions that originate from the public and require use of ACHD or contractor equipment for NPDES annual report documentation.
- Assists in the completion of Illicit Discharge Form, if needed, and ensures complete and accurate information is recorded.
- Serves as a liaison with Idaho Department of Environmental Quality (IDEQ) answering questions regarding final spill cleanup and disposal documentation.
- Participates in State Comm initiated bridge calls, if needed.
- Ensures IDEQ and the Environmental Protection Agency (EPA) notification requirements have been met depending on spilled substance and quantity.

The Sr. Environmental Planner or Environmental Supervisor may fill the role of Environmental Specialist, described above, if the Environmental Specialist is unavailable.

### 4.6 Facilities & Safety Manager

The Facilities and Safety Manager is responsible for review of the Plan with regards to ACHD personnel and public safety concerns. Modifications to this Plan that result in less protective measures than those specified may not be employed without approval by the Facilities and Safety Manager. In addition, the Facilities and Safety Manager has the following responsibilities:

- Develops and coordinates the overall ACHD health and safety program.
- Recommends appropriate safeguards and procedures with regards to Personnel Protective Equipment (PPE) and ACHD personnel safety.
- Conducts accident/injury investigations and recommends corrective measures to prevent reoccurrence of an injury or accident.
- Follows up on large or dangerous spill activities to make sure maintenance crews responded in a safe manner; and
- Coordinates with the Safety & Training Specialist as needed, to ensure safe procedures are taught to both the First Responder Awareness (Section 8.1) and Operator Training levels (Section 8.2).

### 4.7 Safety & Training Specialist

The Safety & Training Specialist develops and provides training resources to ACHD personnel. The Safety & Training Specialist assures training requirements for spill response training meet OSHA Regulations 29 CRF 1910.120 (q)(6)(i) and (ii) as stated in the ACHD Policy for *Right-of-Way Spill, Container, and Debris Response* (Appendix A). In addition, the Safety & Training Specialist has the following responsibilities:

- Ensures appropriate level of training depending on ACHD personnel's role in spill response.
- Evaluates competency in various training areas as required.
- Schedules, documents, and ensures training meets all required elements; and
- Coordinates with the Environmental Specialist on NPDES required training on spill response and pollution prevention.

### 4.8 Field Staff

Field Staff are often first to observe a spill within ACHD's ROW and will proceed to the Spill Response Flow Chart for direction (Laminated sheet in vehicle and Appendix B of this document). Field Staff's primary responsibility regarding spill response is to contact the Administrative Assistant and the Environmental Specialist in case of a moderate or critical spill. In addition, Field Staff has the following responsibilities:

- Directs and assists responsible party in cleanup of incidental spills, including applying absorbent, when needed.
- Documents spill on Q:\Maintenance\Spill Response\Maintenance IllicitDischargeForm 240701.pdf, available on ACHD's intranet (Forms/General Forms/Maintenance Forms) and Appendix E or provide information to Administrative Assistant to complete form.
- Ensures documentation has been provided to the Environmental Specialist.

## 5.0 Waste Disposal

Proper disposal of waste from the ACHD ROW is dependent on type, quantity, spill location, and state of matter. Qualified contractors will be hired for cleanup and disposal of all spills in the ROW where the responsible party is unknown.

The wastes that ACHD crews may encounter and are responsible for disposing of are:

- Trash and debris
- Small amounts of petroleum contaminated soil (if > 1 cu.ft. of soil impacted, hire environmental contractor to take verification sample)
- Absorbent that has been bound to a known pollutant waste in small amounts that can be swept and disposed of appropriately. Use appropriate personal protective equipment when applying and sweeping absorbent.

  **Note: A five-gallon bucket will contain approximately 1 cu.ft. of soil.**
  **Note: Contact Dig Line if impact to soils is greater than surface level.**
  **Note: Approximately 1 bag of absorbent will absorb 2 gallons of liquid.**

Descriptions of waste types and proper disposal methods are:

- Common Waste
  - Consists of trash, debris, or any product that does not have special disposal instruction on its label
  - Can be disposed of in an appropriate waste receptacle

- Pollutant Waste
  - Consists of substances such as gasoline, antifreeze, grease/oil, non-lead-based paint
  - Qualified contractors will be hired for cleanup and disposal of all spills in the ROW where the responsible party is unknown.
  - **Any UNKNOWNS, even if solidified, SHOULD NOT be picked up by ACHD and WILL NOT be transported to ACHD yards.**

- Household Hazardous Waste/ Hazardous Waste
  - Consists of substances such as pesticides, bleach, solvents, and chlorine.
  - Contact an Environmental Contractor for pick up and disposal.
  - **Any UNKNOWNS, even if solidified, SHOULD NOT be picked up by ACHD and WILL NOT be transported to ACHD yards.**

### 5.1 ACHD known spills in the ROW

ACHD crews may apply floor dry to solidify incidental spills (see Section 2.0 Definitions) that has spilled onto the ROW from ACHD equipment only. These spills originate from ACHD equipment and ACHD sweepers may be deployed to assist in spill cleanup. In these situations, the solidified known spill will be taken to the Adams Maintenance Yard and deposited in the designated area. Currently materials are being kept in plastic wrapped "burritos" until the materials can be sampled and characterized for proper disposal.

- **If in doubt, ACHD crews always have the option of hiring an environmental contractor for all spills in the ROW.**

## 6.0 Documentation and Reporting

Documentation and reporting are essential components of ACHD's spill response activities. Documentation entails completing the Illicit Discharge Report Form ID1a (Appendix E). This form is also available electronically on ACHD's intranet under Forms/GeneralForms/Maintenance Forms Maintenance Administrative Assistants and the Environmental Specialist can assist with completing the form as needed.

### 6.1 What Spills are Documented?

All complaints, inquiries, and investigations regarding spills or containers ACHD receives from the public (including those from SeeClickFix) will be documented. Additionally, all spill response initiated by ACHD staff will be documented including:

- Response during normal work activities.
- Response due to referral or request from another agency that requires ACHD contractor be used for cleanup.

If the spill response was not initiated by ACHD staff and does not involve ACHD equipment or an ACHD contractor for cleanup, it will not be documented. For example, if ACHD is notified of a spill within the right-of-way from a motor vehicle accident, and the substance was absorbed and disposed of by emergency responders, it will not need documented unless the MS4, soils, or a waterway is impacted.

Generally, if the spill is large enough that a sweeper or more than one bag of absorbent is needed or cannot simply be thrown away; it should be documented and submitted to the Environmental Specialist.

## 6.2 Documentation Process

The following actions should be taken to document spills in the ACHD ROW. Maintenance Administrative Assistant, Field Staff, Maintenance Superintendent, and Environmental staff are involved in the documentation process.

- Field Staff, with assistance from Maintenance Administrative Assistant (if requested) will complete Form ID1a and submit it to the Environmental Specialist as soon as possible after completion of the form.
- Hazardous waste response should also be documented on Form ID1a and additional actions, as listed in Section 6.3, should be followed.
- The Environmental Specialist will take completed Form ID1a, photos, and all other documentation and save it by location on the shared Q drive at Q:\Maintenance\Spill Response.
- The Environmental Specialist will report on annual spill response activities in ACHD's annual NPDES reports.

## 6.3 Hazardous Waste Records and Retention

A Uniform Hazardous or Non-Hazardous Waste Manifest (manifest) will be requested by the Maintenance Superintendent in all cases that an environmental contractor is used for transport of a hazardous waste for off-site treatment, recycling, storage, or disposal. The manifest will be saved by on the shared Q drive at Q:\Maintenance\Spill Response with other information i.e., illicit discharge form, photos, etc. relating to the incident.

## 6.4 State and Federal Reporting Requirements

The most common spills in the right-of-way are petroleum products. **The IDEQ must be contacted via phone at (208) 373-0502 (Appendix C) as soon as possible, but at least within 24 hours, when ANY of the following conditions occur:**

- **An above ground spill or overfill of petroleum results in a release that is more than 25 gallons.**
- **Spill reaches a surface water and causes a sheen (regardless of the amount spilled).**

- **Less than 25 gallons of petroleum is spilled, but it cannot be cleaned up within 24 hours.**

**Note: Additional sampling required for reportable spills.**

**IDEQ should be notified immediately in the case of a hazardous material spill (anything other than petroleum products).**

Calling the Idaho State Communications System (State Comm) to notify of a spill does not necessarily satisfy reporting requirements to IDEQ or EPA (See Appendix B, Flow Chart). There are instances when IDEQ will be notified for a small quantity petroleum release to soil, for example, where assistance is not requested and State Comm may not be notified. If in doubt, it is better to "over-report" than "under-report." Idaho Department and Administrative Procedures Act (IDAPA) 58.01.02- Water Quality Standards and Wastewater Treatment Requirements establish the State procedures for addressing hazardous material spills (IDAPA 58.01.02.850) and petroleum oil spills (58.01.02.851/852). Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the EPA has established a designated list of reportable quantities for approximately 800 hazardous substances which can be found at 40 Code of Regulations (CFR) 302.4. EPA also maintains a "list of lists" which is a consolidated list of chemicals subject to reporting requirements.

## 7.0 Cost Recovery

By law, the spiller or container owner is responsible for all cleanup costs; consequently, ACHD can recover labor, equipment, and supply costs used in responding to a spill or container from the spiller or container owner. If the spill cleanup or container removal is coordinated by ACHD or an ACHD contractor, then ACHD will be responsible for initiating cost recovery. The Maintenance Superintendent will initiate cost recovery, if warranted, by submitting a Damage Claim Form (Appendix F) to ACHD's Finance Department.

If the response is coordinated via StateComm and IDEQ and determined to be a level III response (Federal resources needed, see Appendix G) the IDEQ will manage field cleanup activities and the Idaho Bureau of Homeland Security will coordinate cost recovery. Appendix H includes the paperwork required by the Bureau of Homeland Security for cost recovery.

## 8.0 Training

ACHD will implement training consistent with the training requirements set forth in OSHA Regulations 29 CFR 1910.120 (q)(6). This training is focused at two levels of training, the First Responder Awareness Level and the First Responder Operations Level. These levels of training and the personnel required to complete the training is described below.

## 8.1 First Responder Awareness Level

This training is required for all Field Staff at Supervisor's discretion, excluding Lead Workers and Crew Chiefs.

First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. First responders at the awareness level shall have annual First Responder Awareness training or have had sufficient experience to objectively demonstrate competency in the following areas:

1910.120(q)(6)(i)(A)
An understanding of what hazardous substances are, and the risks associated with them in an incident.

1910.120(q)(6)(i)(B)
An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.

1910.120(q)(6)(i)(C)
The ability to recognize the presence of hazardous substances in an emergency.

1910.120(q)(6)(i)(D)
The ability to identify the hazardous substances, if possible.

1910.120(q)(6)(i)(E)
An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.

1910.120(q)(6)(i)(F)
The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

## 8.2 First Responder Operator Level

This training is required for all Crew Chiefs, Lead Workers, Maintenance Superintendents, and designated Environmental Specialists.

First responders at the operator level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operator level shall have annual ACHD Spill Response Plan training and at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

1910.120(q)(6)(ii)(A)
Knowledge of the basic hazard and risk assessment techniques.

1910.120(q)(6)(ii)(B)
Know how to select and use proper personal protective equipment provided to the first responder operational level.

1910.120(q)(6)(ii)(C)
An understanding of basic hazardous materials terms.

1910.120(q)(6)(ii)(D)
Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.

1910.120(q)(6)(ii)(E)
Know how to implement basic decontamination procedures.

1910.120(q)(6)(ii)(F)
An understanding of the relevant standard operating procedures and termination procedures.

## 8.3 Spill Response Plan Training

This training is required for all Field Staff, Crew Chiefs, Lead Workers, Maintenance Superintendents, Maintenance Administrative Assistants and designated Environmental Specialists.

All Staff who receive the training outlined in Sections 8.1 and 8.2 will also be trained annually on this Spill Response Plan. The Spill Response Plan training will be conducted by the Environmental Specialist in coordination with the Safety & Training Specialist. The focus of this training will be on operating procedures, communication, coordination and documentation of the response. Spill scenarios will also be used in training to promote discussion and participation and reinforce operating procedures.

The Spill Response Plan training, in addition to the training discussed in Sections 8.1 and 8.2, fulfills NPDES Phase I Permit requirements that state all construction inspectors and maintenance field staff must be trained to identify and eliminate illicit discharges, spills, and illicit connections to the Municipal Separate Storm Sewer System. ACHD's NPDES Phase II Permit states that all construction inspectors and maintenance field staff be sufficiently trained to respond to reports of illicit discharges and spill into the MS4. Orientation and training for new staff working on illicit discharge detection and elimination issues must be conducted in the first six (6) months of employment.

# APPENDIX A SPILL POLICY

Kent Goldthorpe, President
Paul Woods, Vice President
Rebecca W. Arnold, Commissioner
Sara M. Baker, Commissioner
Jim D. Hansen, Commissioner

June 29, 2016

To: ACHD Commission
Bruce Wong, Director

From: Timothy Morgan, Deputy Director
Maintenance

Subject: **Spill Response Policy and Plan – Resolution 2152**

Agenda Date: July 20, 2016

**Facts and Findings:**
On June 13, 2007 the Ada County Highway District Board of Commissioners adopted Resolution 812 adopting and implementing the ACHD Standard Operating Plan for Right-of-Way Spill, Container and Debris Response.

Maintenance and Stormwater team members propose an updated policy to comply with current laws, our newest EPA permits and training best practices. We have also refined the policy and guidance documents for ease of use in the field during an actual spill response.

The proposed Resolution, Policy, Plan and the Staff Report were reviewed by ACHD Legal and approved to go before the ACHD Commission.

**Fiscal Impacts:**
Maintenance currently spends less than $5,000 per year on contracting for mitigation and removal right-of-way spills since most large spills are from a known spiller who is responsible for all costs. Training will be provided by our Safety and Training Coordinator with support from Stormwater and Maintenance team members.

**Staff Recommendation:**
Maintenance Staff recommends the ACHD Commission approve Resolution 2152 providing for repeal of Resolution 812 and adoption of a new internal policy for right-of-way spill, container and debris response and a new spill response plan as internal guidance documents of the Ada County Highway District.

Attachment(s)
Resolution 2152
Spill Response Plan

RESOLUTION NO. 2152

BY THE ADA COUNTY HIGHWAY DISTRICT BOARD OF COMMISSIONERS: KENT GOLDTHORPE, PAUL WOODS, REBECCA W. ARNOLD, SARA M. BAKER AND JIM D. HANSEN

A RESOLUTION PROVIDING FOR THE REPEAL OF RESOLUTION 812 AND ADOPTION OF A NEW INTERNAL POLICY FOR RIGHT-OF-WAY SPILL, CONTAINER AND DEBRIS RESPONSE AND A NEW SPILL RESPONSE PLAN AS INTERNAL GUIDANCE DOCUMENTS OF THE ADA COUNTY HIGHWAY DISTRICT.

WHEREAS, Ada County Highway District has jurisdiction and responsibility for all public highways and public rights-of-way within Ada County, Idaho, except state highways and interstate freeways; and

WHEREAS, the health and safety of Ada County Highway District employees is of the utmost concern to the Ada County Highway District Commissioners and Director; and

WHEREAS, on occasion, ACHD personnel may witness or discover in the right-of-way, spills of hazardous and/or unknown substances and various pollutants and common waste, as well as containers which may contain hazardous and/or unknown substances; and

WHEREAS, pursuant to Occupational Safety and Health Administration (OSHA) Regulation 29 CFR § 1910.120(q), ACHD personnel who may witness or discover in the right-of-way, spills of hazardous substances and containers which may contain hazardous substances are considered “emergency response” personnel. OSHA Regulation 29 CFR § 1910.120(q)(6) “emergency response” personnel must be appropriately trained depending upon their duties and functions relating to an emergency; and

WHEREAS, the ACHD Board of Commissioners and Director are committed to appropriate training of ACHD Construction Inspectors and Maintenance field personnel and in accordance with OSHA Regulation 29 CFR § 1910.120 and to ensure that such ACHD personnel have first responder awareness level training and the knowledge to initiate an emergency response sequence by notifying the property authorities of the release and to stay out of harm’s way in a spill response situation; and

WHEREAS, the ACHD Board of Commissioners and Director are committed to appropriate training of ACHD Maintenance on-call personnel and supervisors in accordance with OSHA Regulation 29 CFR § 1910.120, to ensure that such ACHD personnel have first responder operator level training and the knowledge to initiate an emergency response sequence by notifying the proper

authorities of a release and are able to direct and/or participate in defensive measures in the "safe zone" as determined by the on scene incident commander, to prevent hazardous substances and pollutant wastes from entering into the storm water drainage system only if such measures are deemed by such Maintenance on-call personnel and supervisors to be necessary and essential to prevent contamination of the storm water drainage system and no other public or private resources are immediately available; and

WHEREAS, in the interest of ACHD employee health and safety, the ACHD Commissioners and Director have determined that ACHD staff will not directly participate in hazardous substance clean up and that only properly trained and/or directed ACHD personnel may participate in limited containment of hazardous substances and pollutant wastes; and

WHEREAS, Environmental Protection Agency (EPA) Regulation 40 CFR § 122.26(d)(2)(iv)(B)(*4*), requires that applications for NPDES permits for large and medium municipal separate storm sewer systems include, "[a] description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer."; and

WHEREAS, in addressing EPA Regulation 40 CFR § 122.26(d)(2)(iv)(B)(*4*), ACHD's NPDES permit provides in pertinent part: "f) Prevent and Respond to Spills to the MS4. Throughout the Permit term, the Permittees must coordinate appropriate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times."; and

WHEREAS, adoption and implementation of an internal policy for right-of-way spill, container and debris response and a plan for right-of-way spill response which establish requirements for employee training and which clearly sets forth roles and responsibilities for ACHD personnel who may be engaged in such response will enhance ACHD's risk management efforts in the areas of employee health and safety and incident management and response and will also assist ACHD's efforts to comply with applicable regulations of the OSHA and EPA; and

WHEREAS, on June 13, 2007 the Ada County Highway District Board of Commissioners adopted Resolution 812 adopting and implementing the ACHD Standard Operating Plan for Right-of-Way Spill, Container and Debris Response, as an internal policy and guidance document of the Ada County Highway District and ACHD staff has reviewed the aforementioned Standard Operating Plan for Right-of-Way Spill, Container and Debris Response and prepared various revisions to it in the form of a proposed replacement Policy for Right-of-Way Spill, Container and Debris Response as an internal policy and a separate Spill Response Plan and it is in the interest of ACHD employee health and safety to repeal Resolution Number 812 and adopt a new and replacement Policy for

Right-of-Way Spill, Container and Debris Response as an internal policy and a separate Spill Response Plan; and

WHEREAS, it is the interest of ACHD employee health and safety to authorize ACHD staff to revise and modify the Spill Response Plan that is adopted by this Resolution as such revisions and modifications may be deemed necessary from time to time by the ACHD Director to ensure the information is current, relevant and applicable to ACHD spill response activities and consistent with the Policy for Right-of-Way Spill, Container and Debris Response.

NOW, THEREFORE, BE IT RESOLVED, that the Ada County Highway District Board of Commissioners does hereby repeal Resolution Number 812 and adopts and implements the attached Policy for Right-of-Way Spill, Container and Debris Response (Attachment "1") and a separate Spill Response Plan (Attachment "2") and the Commissioners do hereby authorize ACHD staff to revise and modify the Spill Response Plan that is adopted by this Resolution as such revisions and modifications may be deemed necessary from time to time by the ACHD Director to ensure the information is current, relevant and applicable to ACHD spill response activities and consistent with the Policy for Right-of-Way Spill, Container and Debris Response.

BE IT FURTHER RESOLVED, that this Resolution shall be in full force and effect immediately upon its adoption and approval.

Adopted and approved by the Board of Commissioners of the Ada County Highway District on the 20th day of July, 2016.

BOARD OF HIGHWAY DISTRICT COMMISSIONERS OF
ADA COUNTY, IDAHO:

Kent Goldthorpe, President

Paul Woods, Vice President

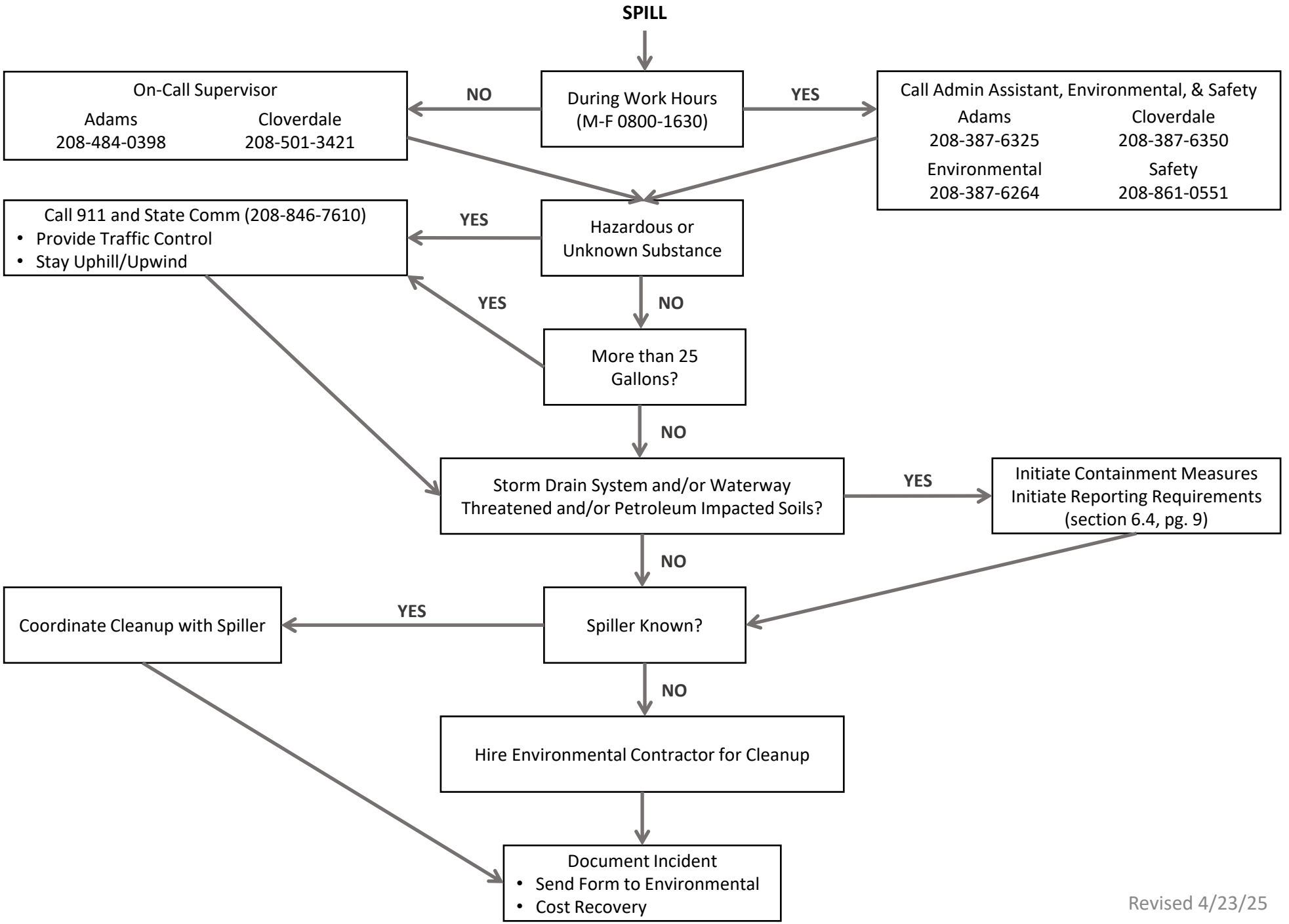
Rebecca W. Arnold, Commissioner

absent
Sara M. Baker, Commissioner

Jim D. Hansen, Commissioner

# APPENDIX B FLOW CHART

# SPILL RESPONSE FLOW CHART




Revised 4/23/25

# APPENDIX C CONTACTS

# WY2025 MS4 CONTACT LIST

| ABBR. | GOVERNMENT AGENCIES | CONTACT | PHONE | FAX | EMERGENCY (24/ 7) | NOTES |
|---|---|---|---|---|---|---|
| ADA C. | Ada County New Development Services | Zach Kirk | (208) 287-7925 | (208) 287-7909 | NA | Property outside city limits |
| ADA C. | Ada County Solid Waste | Kurt Hunt | (208) 577-4725 | NA | Kurt Hunt (208) 941-5652 Jessie McMillian (208) 576-1735 Chad Schwend (208) 941-5656 | Deputy Director Operations Supervisor<br><br>Environmental Compliance Manager |
| ACHD | Ada County Highway District Maintenance | Stacie Kendra (Adams)<br><br>Elise Hedges (Cloverdale) | (208) 387-6326<br><br>(208) 387-6351 | (208) 387-6391 | (208) 484-0398 (Adams)<br><br>(208) 501-3421 (Cloverdale) | Flooding or spills in the public right-of-way<br>Curb, sidewalk paving, anything in roadway |
| ACHD | Ada County Highway District Construction | Construction Desk Keegan Casetta | (208) 387-6281 | (208) 387-6393 | NA | ACHD Construction Sites |
| ACHD | Ada County Highway District Environmental | Jackson Cook | (208) 387-6264 | (208) 387-6393 | (208) 860-6634 (cell) | Construction site erosion control in public right of way |
| BOI | Airport | Airport Operations | (208) 383-3110 | (208) 343-9667 | (208) 383-3110 | Airport Property |
| BOISE | Boise City – Source Control Manager | Austin Walkins | (208) 546-9956 | (208) 433-5650 | (208) 546-9956 | Sanitary sewer, Private & City property |
| BOISE | Boise City – Parks and Recreation | Rotating System | (208) 608-7600 | (208) 608-7648 | NA | Parks and Recreation Facilities |
| BOISE | Boise City – Public Works Utility Maint. | Rotating System | (208) 608-7200 | (208) 608-7210 | (208) 869-9855 on call phone | Public Works Facilities Sewer Lines |
| BOISE | Boise City – Public Works Sewer Complaints | Rotating System | (208) 608-7200 | NA | NA | Complaints, Sewer Line backups, Construction |
| BOISE | Boise City – Community Housing | Maureen Brewer | (208) 570-6845 | (208) 384-4195 | (208) 954-0664 Maint. contact center | Community Housing Facilities |
| BOISE | Boise City – Facility Services | Rob Bousfield | (208) 608-7514 | (208) 384-3905 | NA | Emergency Management Command Lead |
| BOISE | Boise City – Dep of Finance & Admin | Becky Sievers-Nathey (Admin Support) | (208) 972-8150 | NA | NA | City Code Violations |
| BOISE | Boise City - Planning & Dev. Svcs. | Andy Long Michael Zawacki | (208) 794-8996 (208) 473-8333 | (208) 388-4735 | (208) 794-3958 (cell) | Construction Site erosion control on private property |

Revised 4/10/2025

| ABBR. | GOVERNMENT AGENCIES | CONTACT | PHONE | FAX | EMERGENCY (24/ 7) | NOTES |
|---|---|---|---|---|---|---|
| FIRE<br>911 | ADA County dispatch: Police, Fire, Paramedics | Emergency Response | (208) 377-7351 | (208) 377-7371 | 911 | Threat to Human health/safety (Command Line) |
| BLM | Bureau of Land Management | Brent Ralston | (208) 384-3430 | (208) 384-3326 | NA | BLM Property |
| BSU | Boise State University | Suzy Arnette<br><br>Public Safety University Security | (208) 426-3906<br><br>(208) 426-6911 | (208) 426-4435 | (208) 426-1453 | BSU Property |
| BOR | Bureau of Reclamation (Snake River) | Emergency Management Specialist<br><br>David McCarville | (208) 501-6735 | (208) 383-2237 | On Call duty Officer (208) 507-1817 | Agricultural drains & canals, Unauthorized use |
| CDHD | Central District Health Department | Mike Reno | (208) 327-8522 | (208) 327-8553 | (208) 869-9144 (cell) | Septic tank failures<br>Septage<br>Public health hazards |
| DEQ | Department of Environmental Quality | Mathew Pabich | (208) 373-0510 | (208) 373-0287 | 1-800-632-8000 (State Emergency Response) | Waste & Remediation |
| ISP | Idaho State Police | Rotating | (208) 846-7500 | (208) 846-7520 | 911 | Hazardous Material Spills, etc. |
| EPA | Environmental Protection Agency National Response Center | National Response Center | 1-800-424-8802 | NA | NA | For federal reporting purposes |
| GARDEN CITY | Garden City | North Ada County Fire<br><br>James Pavelek | 911<br><br>(208) 472-2949 | NA<br><br>(208) 472-2996 | 911<br><br>(208) 941-5995 | Garden City Issues |
| IDA | Idaho Department of Agriculture | Brian Slabaugh | (208) 332-8608 | (208) 334-3547 | 1-800-632-8000 (State Emergency Response) | Pesticides<br>Dead Livestock |
| ISDA | Idaho State Dept of Ag | Mitch Vermeer | (208) 332-8541 | (208) 334-4062 | NA | |
| IDWR | Idaho Department of Water Resources | Brian Ragan | (208) 287-4934 | (208) 287-6700 | NA | Subsurface disposal: Type 5 Injection Wells |
| ITD | Idaho Transportation Department, District 3 | Brad Wolfinger | (208) 334-8163 | (208) 334-8917 | (208) 334-8300 | State & Federal Hwys<br>Spills/Dumping<br>ITD Construction Site Erosion Control |
| VEOLIA | Veolia Water | Customer Service | (208) 362-7304 | (208) 362-1479 | NA | Public Drinking Water |

| ABBR: | DRAINAGE DISTRICTS: | CONTACT | PHONE | FAX | EMERGENCY (24/7) | NOTES |
|---|---|---|---|---|---|---|
| DD2 | Drainage District No. 2 & 4 (combined as No.2) | Allen Funkhouser (will retire by 12/31/21) | (208) 571-3804 | NA | (208) 571-3804 | District Canals |
| DD3 | Drainage District No. 3 | Dean Callen | (208) 602-1713 | NA | NA | District Drains |
| DD2 | Drainage District No. 2 (FKA No.4) | Bryce Farris Sawtooth Law Firm | (208) 629-7447 | (208) 629-7559 | (208) 571-3804 | District Drains |

| IRRIGATION DISTRICTS: | CONTACT | PHONE | FAX | EMERGENCY (24/7) | NOTES |
|---|---|---|---|---|---|
| Boise Project Board of Control plus:<br>▪ Boise/Kuna Irrigation District<br>▪ New York Irrigation District<br>▪ Nampa/Meridian Irrigation District (south of Ridenbaugh) | Bob Carter<br>Clint McCormick<br>Rotating | (208) 344-1141<br>(208) 922-5603<br>(208) 342-5086<br>(208) 466-0663 | (208) 344-1437 | (208) 871-7696 | District Canals |
| Boise City Canal Company | Mike Harrison | (208) 387-3526 | NA | (208) 447-8600 | District Canals |
| Boise Valley Irrigation Ditch Company | John Patten<br>Megan Aubrey | (208) 941-2042<br>(208) 853-5288 | NA | (208) 853-5288 | District Canals |
| Nampa/Meridian Irrigation District | Greg Curtis | (208) 466-0663 | (208) 463-0183 | (208) 489-6345 when water is running | District Canals |
| Settlers Irrigation District | Mack Myers | (208) 344-2471 | (208) 343-1642 | (208) 870-4292 (water emergencies) | District Canals |
| Farmers Union Canal | Seth Kettering | (208) 994-8689 | NA | NA | District Canals |

| SEWER DISTRICTS: | CONTACT | PHONE | FAX | NOTES |
|---|---|---|---|---|
| West Boise Sewer- City of Boise | David Silkins | (208) 375-8521 | (208) 327-0894 | Unauthorized Connections |

## Spill Response Contractor

| | | |
|---|---|---|
| **Master Environmental** **P.O.# 63070044 for FY25** | **(208) 888-7979** | **Services: 24 hour service, hazardous material disposal, sewer disposal, vac truck, drain field cleaning, and video camera line inspection equipment.** |
| - Travis Bruegeman Environmental Account Manager | (208) 870-2423 (cell) | |
| **Specialty Environmental** **P.O.# 63070045 for FY25** | **(208) 327-9977 (office)** | **24 hour services, Emergency Response, decontamination services, vac truck services, sampling, excavation/remediation** |
| - Jeff Berlik | (208) 863-4667 | |
| - Kurt Hoagland | (208) 869-1140 | |
| **Clean Harbor** | **1-800-645-8265** | **6679 S Supply Way, Boise, ID 83616** |
| - Ray McVey - District Manager | (208) 449-2407 (cell) | **ONLY CONTACT IF MASTER ENV. OR SPECIALTY ENV.CAN'T RESPOND** |

## Sewer Contractor Cleanup

| | | |
|---|---|---|
| **Master Rooter** | **(208) 888-7979** | **Services: sewer disposal 24 hour service hi velocity jetting machine, drain field cleaning, tv video camera line inspection equipment and septic tank** |
| - Mark Fisher - Rooter Account Manager | (208) 573-1700 (cell) | |
| **Roto Rooter** | **(208) 562-8040** | **Services: 24 hour service hi velocity jetting machine, drain field cleaning, tv video camera line inspection equipment.** |

## ACHD Contacts

| | | |
|---|---|---|
| Tom Otte - Deputy Director, Operations | (208) 781-2945 | **Text sent to inform staff when ACHD equipment is deployed or contracted services for spill response after normal work hours.** |
| Lloyd Carnegie - Manager, Maintenance | (208) 919-4623 | |
| Bobby Amidon -Superintendent, Adams Maintenance | (208) 401-6624 | |
| Rich Shaw - Superintendent, Cloverdale Maintenance | (208) 484-0389 | |
| Heather Friddle- Superintendent, Maintenance Projects | (208) 509-2031 | |
| Erin Chestnut - Fleet Superintendent | (208) 871-0023 | |
| Joe Shoen - Fleet Manager | (208) 593-1762 | |
| Dean Cooper - Facility & Safety Manager | (208) 861-0551 | |
| Jackson Cook - Environmental Specialist | (208) 860-6634 | |
| Adams on-call cell | (208) 484-0398 | |
| Cloverdale on-call cell | (208) 501-3421 | |

## Dead Animals in Right-of-Way

| | | |
|---|---|---|
| **Idaho Humane Society** | **(208) 342-3508** | **Services: Dead animal pick up in Ada County.** |
| **Animal Control - Idaho Humane Society** | **(208) 343-3166** | **Services: Provide animal control for public nuisance, running loose, injured, or barking animals.** |
| **Fish & Game - Southwest Region** | **(208) 465-8465** | **Services: Dispose of large game animals.** |
| **Darling International** | **(208) 344-8318** | **Services: A for profit service to dispose of livestock.** |

## Pollutant Waste Disposal Facilities

| | | |
|---|---|---|
| **Ada County Household Hazardous Materials Collection Facility** | **(208) 577-4736** | **Email: jmcconnell@AdaCounty.Id.gov** |
| **Hidden Hollow Landfill - Justin McConnell** | **(208) 941-5656** | **Services: Accepts residential household hazardous materials - paint, antifreeze, oil, solvents, pesticides, and cleaning supplies from residents in Ada County (NOT ACHD).** |
| **The L & R Group** | **(208) 813-7700** | **E-Mail: Regan@TLR.Group** |
| - Ryan (L & R Group Associate) | (208) 243-2611 | **Disposal of contaminated soil.** |

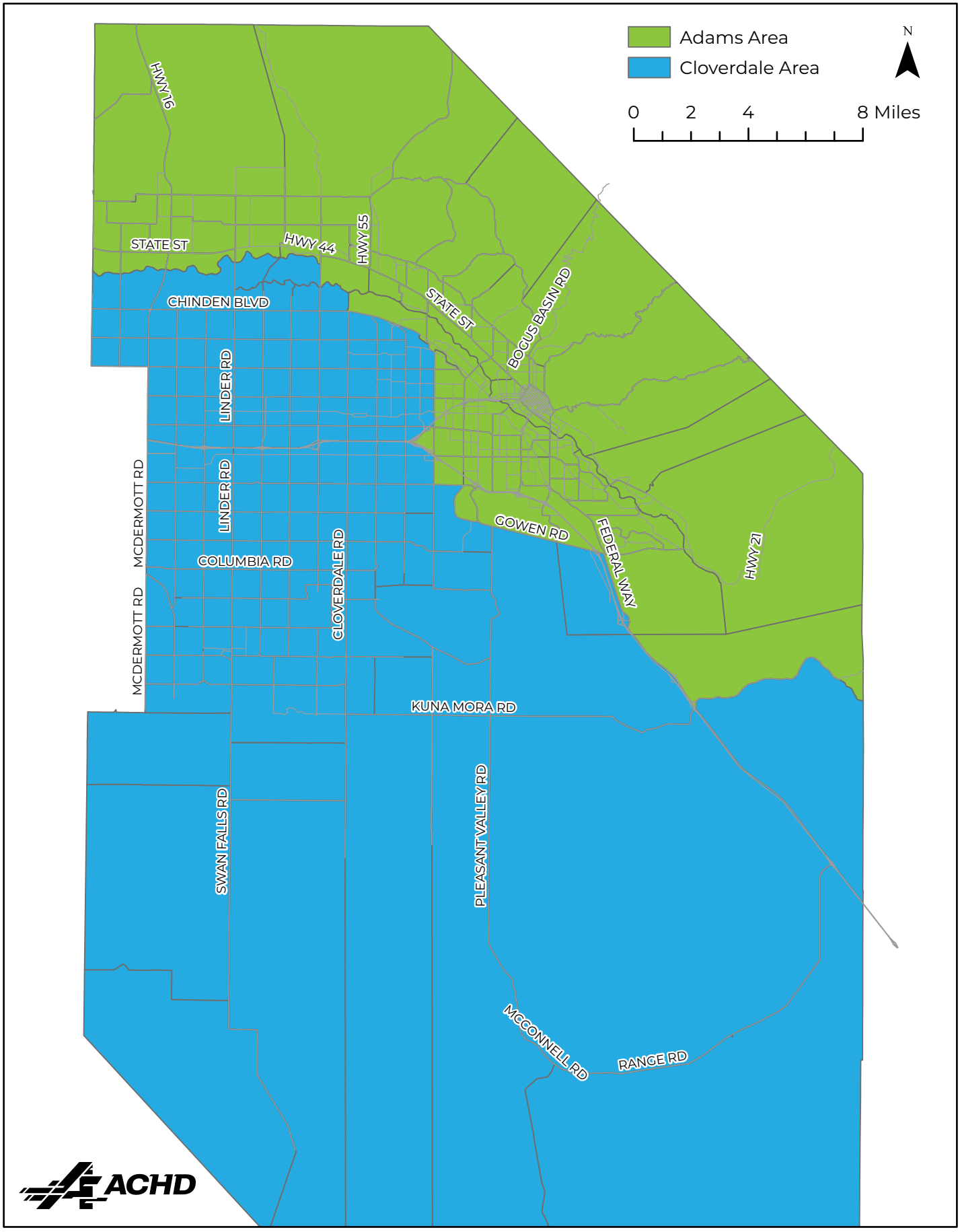
## Assisting Agencies

| | | |
|---|---|---|
| **Boise Public Works Department - Engineering** | **(208) 546-9956** | **Andrea Leonard, Stormwater Sr. Environmental Specialist**<br>**Services: Commercial and industrial billing and Stormwater complaint response.** |
| **Boise Fire Department** | **(208) 570-6500** | |
| **Congestion Management Center** | **(208) 387-6198** | **Service: Controls traffic signals within Ada County and provides remote intersection monitoring at many of the main Ada County intersections. Can** |
| - Wendi Tillman | (208) 860-6660 | |
| **Garden City Environmental Department** | **(208) 472-2900 X 116** | |
| - James Pavelek - Environmental Manager | (208) 472-2949 | |
| **Meridian Fire Department** | **(208) 888-1234** | |
| **Meridian City Code Enforcement** | **(208) 846-7326** | |
| **City of Eagle Code Enforcement** | **(208) 939-0227** | |
| **Kuna Code Enforcement** | **(208) 401-4334** | |
| **Ada County Code Enforcement** | **(208) 577-3726** | |
| **State Comm** | **(208) 846-7610** | **StateComm is the first agency notified by the 911 dispatcher when a hazardous spill has been reported. The StateComm Communications Moderator is tasked with setting up a bridge call with area experts and determining a course of action for spill containment, evacuation, and cleanup.** |
| **Idaho Department of Environmental Quality** | **(208) 373-0502** | **Petroleum Release** |
| **National Response Center** | **1-800-424-8802** | **If spill is a CERCLA chemical** |
| **Ada County - Hidden Hollow Landfill** | **(208) 577-4725** | **Contact Jessie McMillian to report garbage along Seaman's Gulch Road and Gary Lane. 208-576-1735** |

Revised 4/25/25

# APPENDIX D ADAMS & CLOVERDALE AREAS

# Adams and Cloverdale Areas



# APPENDIX E ILLICIT DISCHARGE FORM

# ILLICIT DISCHARGE RESPONSE FORM

**Form ID1a - Return to Jackson Cook (jcook@achdidaho.org, 208-860-6634)**

| Responder Information | | | |
|---|---|---|---|
| Responder Name: | | Complaint Received Date/Time: | |
| Responder Contact Information: | | | |

| Incident Information | | | |
|---|---|---|---|
| Street Address: | | City: | |
| Pollutant: | | | |
| Relative Quantity: | | | |
| Incident Description: | | | |
| Impacts (check if applicable): | ☐ Impacted Storm Drain ☐ Impacted Soils | | |

| Suspected Responsible Party Information |
|---|
| Name for Report: |
| Other Info. (Business Name, Address, License Plate Number, etc.): |
| |

| Follow-up Information |
|---|
| Summary of Action Taken for Report: |
| |
| Severity: |

1: Very low/negligible effects
2: Discharge occurred and possible damage to system
3: Discharge occurred cleanup is necessary
4: Significant discharge ongoing cleanup necessary
5: Probable impairment to waterways

# APPENDIX F DAMAGE CLAIM FORM

Miranda Gold, President
Alexis Pickering, Vice President
Kent Goldthorpe, Commissioner
Dave McKinney, Commissioner
Patricia Nilsson, Commissioner

Date of Loss:
Location:
Work Desc:

Responsible Party:

**MATERIALS**

| Qty | Description | Unit Cost | Amount |
|---|---|---|---|
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |

**EQUIPMENT**

| Equipment # | Rate | Hours | Amount |
|---|---|---|---|
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |

**CONTRACT**

| Vendor Name | Amount |
|---|---|
| | $ - |
| | $ - |
| | $ - |
| | $ - |
| | $ - |

**LABOR**

| Employee Name | Rate | Hours | Amount |
|---|---|---|---|
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |
| | | | $ - |

| | | |
|---|---|---|
| **TOTALS** | | |
| **Labor** | $ | - |
| **Equipment** | $ | - |
| **Contract** | $ | - |
| **Materials** | $ | - |
| **Total Amount Due** | $ | - |

Date prepared:

# APPENDIX G INCIDENT RESPONSE CLASSIFICATIONS

# INCIDENT RESPONSE CLASSIFICATIONS

The Idaho State Communication Center (Idaho Office of Emergency Management – IOEM) provides assistance based on the following classifications. When IOEM is notified of an incident, IDEQ will be contacted. Together, they designate the level of response given the information they have.

**Level I: An incident involving any response, public or private, to hazmat that can be contained, extinguished, and/or abated using resources immediately available to responders having jurisdiction.**

Example – Incidents where local or municipal response is involved – police or fire.

**Level II: An incident involving hazmat that is beyond the capabilities of the first responders on scene and may be beyond the capabilities of the public sector response agency having jurisdiction.**

Example – When state assets are needed – Bomb squad or Regional Response Team (RRT) The RRT does hazardous waste characterization/testing on site. Response is billed to the State.

**Level III: An incident involving weapons of mass destruction (WMD)/hazmat that will require multiple State of Idaho Regional Response Teams or other resources that do not exist within the State of Idaho.**

Example – this includes if a military ordinance is found. CST – Civil Support Team at Gowen Field. This team is paid for by the federal government but housed at the state level. The CST has a mobile lab for nuclear, biological, and chemical agents.

# APPENDIX H HOMELAND SECURITY FORM

# IDAHO BUREAU OF HOMELAND SECURITY
# EMERGENCY RESPONSE INCIDENT REPORT
# STATE COMM NUMBER: _____

AGENCY SUBMITTING CLAIM:_____ INCIDENT DATE:_____

RESPONDING AGENCY (IES)
ADDRESS(S):_____

_____

COMPLETED BY:_____ PHONE #:_____

E-MAIL ADDRESS:_____

INCIDENT LOCATION:_____

CITY:_____ COUNTY:_____ ZIP:_____

GPS COORDINATES (If available):_____

TIME RESPONSE BEGAN:_____ ENDED:_____

INCIDENT COMMANDER:_____ AGENCY:_____

RESPONSE TEAM LEADER_____ RRT:_____

SOURCE/CAUSE OF RESPONSE:_____

_____

RESPONSIBLE PARTY/SUSPECT:_____

_____

CONTACT NAME:_____ TITLE: _____

MAILING ADDRESS:_____ CITY:_____ STATE:_____ ZIP:_____

TELEPHONE:_____ MESSAGE PHONE:_____

INSURANCE COMPANY:_____ AGENT:_____

ADDRESS:_____ CITY:_____ STATE:_____ ZIP:_____

TELEPHONE:_____ MESSAGE PHONE:_____

INCIDENT INFORMATION:

SUBSTANCE(S) INVOLVED:

SUMMARY OF RESPONSE ACTION:

ADDITIONAL INFORMATION

DOCUMENTATION ATTACHED:

PHOTOS: ☐ VIDEO: ☐ RECEIPTS: ☐ NARRATIVE/TIMELINE: ☐

# 2025 Attachment O.1 – City of Boise Spill Response Plan

# HHW Description for FY 2025 Annual Stormwater Report

The City of Boise coordinates with Ada County to facilitate the collection of Household Hazardous Waste (HHW) to ensure proper disposal. The program consists of a permanent collection facility located at the Ada County Landfill and city-sponsored mobile collection sites. Ada County residents may take HHW to any mobile collection site or the HHW Facility on scheduled days, free of charge.

Materials accepted at HHW collection sites include household chemicals, cleaning products, automotive products, yard and garden chemicals, pool and spa chemicals, electronics, empty propane cylinders, rechargeable batteries, and mercury-containing items such as fluorescent light tubes, compact fluorescent light bulbs, thermometers, and thermostats. Liquids including used motor oil, paints, solvents, and antifreeze are also collected. These materials are recycled or properly disposed of when recycling is not feasible. Medications are accepted from residents through local law enforcement offices and are not accepted through the HHW program.

In FY 2025, approximately 630,000 lbs of material were collected from Boise-area mobile HHW collection sites. Please note, the HHW program is available to all Ada County residents, and so materials from residents outside of Boise may have been collected at the Boise-area mobile HHW collection sites.

Products turned into the HHW program that meet certain criteria are made available to the public free of charge in the "Reuse Area" located at the HHW Facility at the Ada County Landfill. Items available for reuse include paints, stains, cleaning supplies, yard and garden chemicals, and automotive fluids.

In addition to residents, businesses located within Ada County can take advantage of the Very Small Quantity Generator (VSQG) program that provides an affordable disposal option for businesses that generate small quantities of hazardous wastes. City of Boise departments that generate small quantities of used motor oil, fluorescent light bulbs, and other hazardous materials manage those materials through the VSQG program. The VSQG program is operated out of the HHW Facility at the Ada County Landfill.

# 2025 Attachment P - ACHD Americana Subwatershed WY2025

# Americana Subwatershed Monitoring Summary

## Water Year 2025

Prepared by
Ada County Highway District
January 7, 2026

# Table of Contents

1 Introduction ..... 1
2 Monitoring Sites, Equipment, and Sample Types ..... 3
2.1 Water Quality Sample Types ..... 5
3 Americana Subwatershed Monitoring Results ..... 5
3.1 Water Level Monitoring Results ..... 5
3.2 Water Quality Monitoring Results ..... 6
3.2.1 Grab Samples ..... 7
3.2.2 Composite Samples ..... 7
4 Quality Assurance/Quality Control ..... 8
4.1 QC Sample Results ..... 9
4.1.1 Field QC Samples ..... 9
4.1.2 Laboratory QC Samples ..... 9
4.1.3 Equipment QC Samples ..... 9
Appendix A: Figures ..... A-1
Appendix B: Tables ..... B-1

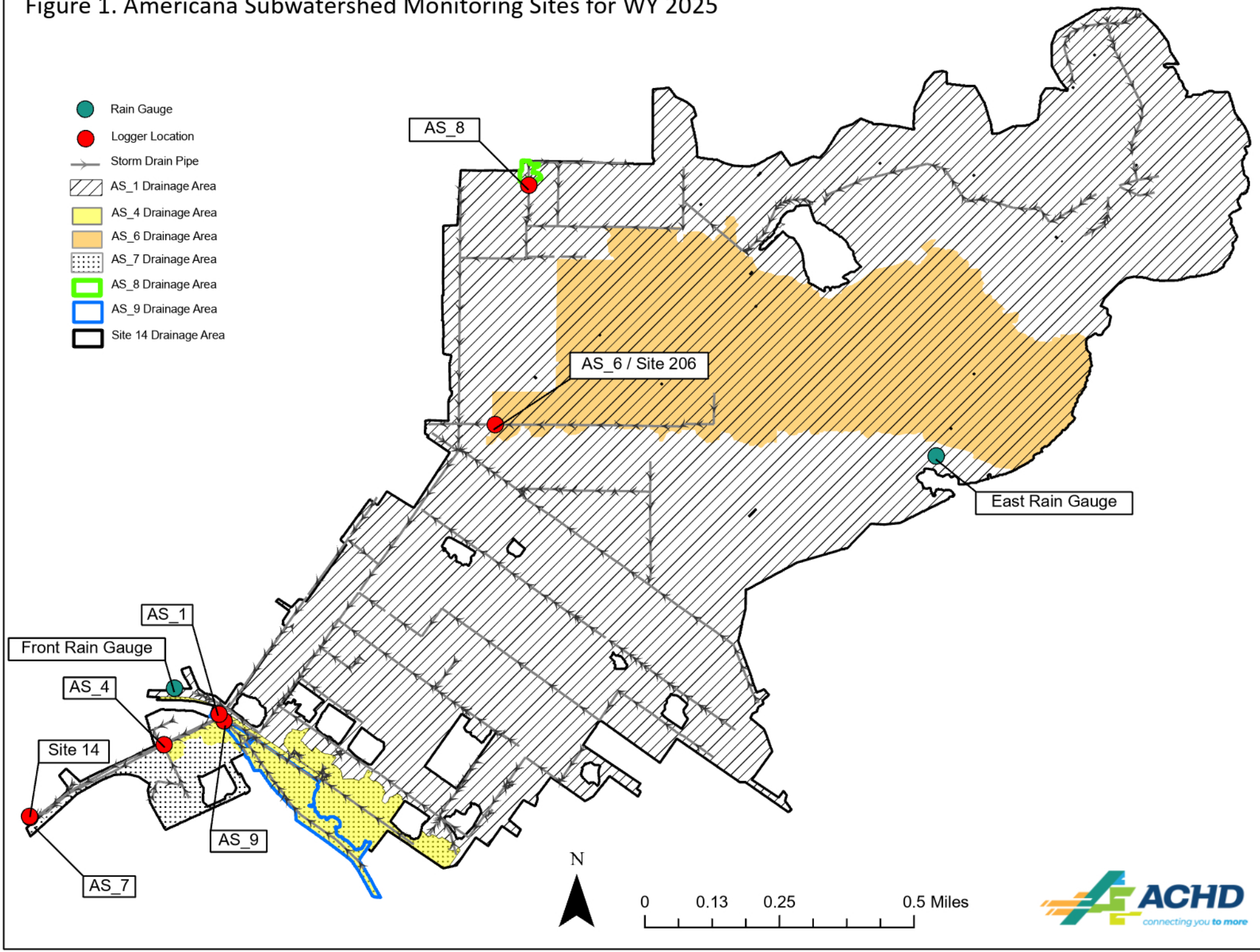
# 1 Introduction

Ada County Highway District, Boise State University, City of Boise, City of Garden City, Drainage District #3, and the Idaho Transportation Department District #3 (Permittees) were issued a National Pollutant Discharge Elimination System Phase I Permit #IDS-027561 (Permit) on October 1, 2021. The Permit authorizes the Permittees to discharge from municipal separate storm sewer system outfalls to the Boise River and its tributaries. According to Permit Part 6.2.2, *Subwatershed Monitoring,* Permittees are required to conduct monitoring within the Americana subwatershed to better define wet weather and dry weather flow volumes, sources, and pollutant loads.

The Americana subwatershed is one of the largest urban subwatersheds on the lower Boise River and drains a significant portion of downtown Boise and the North End and Foothills residential areas. Stormwater discharge monitoring (flow measurement and analytical sample collection) is currently conducted at the Americana outfall as identified in the Stormwater Outfall Monitoring Plan (SWOMP) (ACHD, 2022). While data collected at the outfall is important for understanding discharges to the Boise River, the dataset does not provide much information about the pollutant load and dry weather sources farther up in the storm drain system. Guided by the Americana Subwatershed Plan (ACHD, 2020), the Americana subwatershed is divided into subcatchments at major nodes in the system to parse out non-stormwater flow sources and characterize pollutant contributions. The following summary describes Americana subwatershed monitoring activities during water year (WY) 2025 (October 1, 2024–September 30, 2025). A report summarizing all data collected during the permit term will be submitted as an attachment to the Permit Renewal Application, required by Part 8.2, no later than April 3, 2026.

In WY 2025, data collection throughout the Americana subwatershed included precipitation, water level, flow, and water quality samples. Precipitation data were collected at two representative locations, and water level data were collected at six subwatershed locations and at the Americana monitoring station. The water level data were compared to the precipitation data to look for anomalies in the municipal separate storm sewer system, such as instances when the water level in pipe increases or decreases without a corresponding precipitation event and when the water level increases from isolated subcatchment areas. Additionally, water quality data from targeted wet weather discharges were collected from one subcatchment site (Site 206) to compare with the Americana outfall site (Site 14). The water quality data, along with flow data, were used to calculate pollutant loads and identify pollutants discharging from Site 206 that are disproportionately high compared to Site 14.

# Figure 1. Americana Subwatershed Monitoring Sites for WY 2025



# 2 Monitoring Sites, Equipment, and Sample Types

Data were collected at the following monitoring sites during WY 2025: AS_1, AS_4, AS_7, AS_8, AS_9, Site 14, Site 206, Front, and East (Figure 1). Details on each of the monitoring sites, including subcatchment areas, pipe characteristics, and equipment deployment start and end dates, are found in Table 1. Figure 2 shows the locations of the monitoring sites in relation to each other using a conceptual layout of the storm drain system.

Site 14 is the Americana outfall monitoring station used in the National Pollutant Discharge Elimination System Phase I Stormwater Outfall Monitoring Program. This monitoring site is equipped with a flowmeter and sampler to collect water level, velocity, flow, and composite samples. Water level, velocity, and flow data are collected at 15-minute intervals during dry weather and 1-minute intervals when the equipment is set up to monitor a forecasted storm event.

Site 206 is a subcatchment of the Americana subwatershed. Similar to Site 14, it is equipped with a flowmeter and sampler to collect flow and water quality data during targeted storm events.

AS_7 is a secondary outfall to Site 14, with a connection between storm drain pipes farther up in the system. This site is equipped with a flowmeter to capture continuous water level, velocity, and flow data at 5-minute intervals.

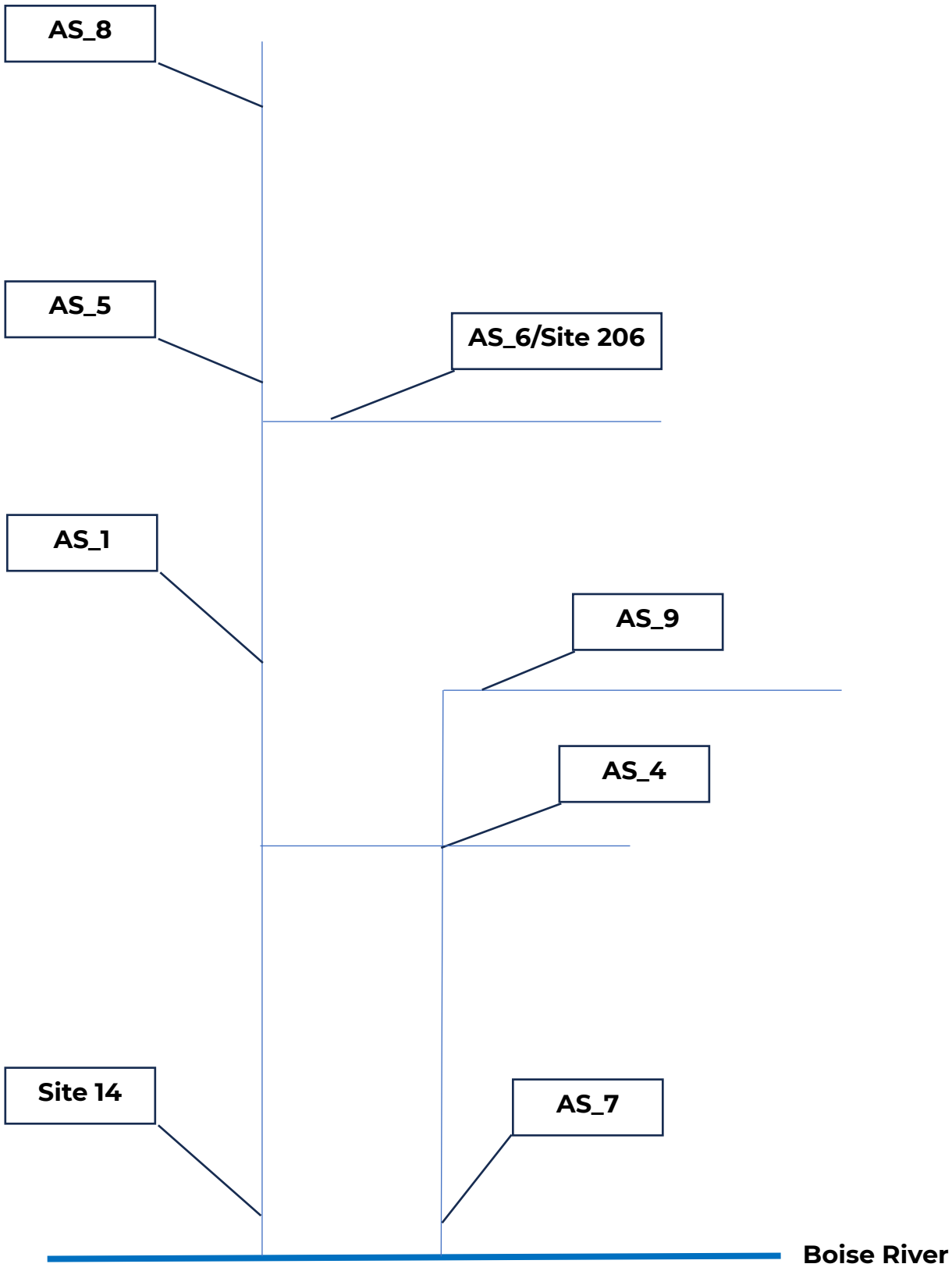
AS_1, AS_4, AS_8, and AS_9 represent subcatchment areas within the Americana subwatershed. Each site is equipped with a water level logger to collect in-pipe water level data. The loggers continuously record pressure readings at 5-minute intervals. The pressure readings are corrected using local barometric pressure and converted to water level.

The AS_8 site was initially installed during the second quarter of WY 2023 to replace AS_5 and capture Hull's Gulch flows into the Americana storm drain system. It was determined in the second quarter of WY 2025 that the level data collected at the site was inaccurate due to the positioning of the logger in the storm drain pipe. A camera inspection was completed to evaluate potential alterations to the site installation and logger positioning. As a result, it was determined that the storm drain pipe would need to be cleaned to further assess the pipe condition, and the logger was removed from the site during the third quarter. Due to safety concerns with high pedestrian and vehicle traffic in the area, cleaning was scheduled for the fall of 2025. The site location and logger positioning will be reevaluated upon establishing the current pipe condition. All data collected during WY 2025 at AS_8 has been rejected and excluded from the analysis.

The AS_9 site was added to measure dry weather flow at AS_4 by splitting the subwatershed into two areas, with AS_9 representing the upstream portion of the AS_4 subwatershed.

Front and East are rain gauge sites and are equipped with tipping bucket rain gauges. The rain gauges collect continuous precipitation data in 0.01-inch increments using event data loggers. The precipitation data are used to determine the date and times of wet weather storm events and dry weather periods.

Figure 2. Conceptual Layout of Monitoring Sites



## 2.1 Water Quality Sample Types

The sample types collected during WY 2025 include grab samples and composite samples. Grab samples represent a discrete measurement from the overall storm discharge while composite samples represent the entire discharge.

Grab samples were manually collected from wet weather discharges using a swing sampler. The grab samples were submitted to the Boise City Public Works Water Quality Laboratory (WQL) and analyzed for *E. coli*. At the time that the *E. coli* grab samples were collected, field parameters (temperature, pH, dissolved oxygen, and conductivity) were measured using In-Situ Aqua TROLL 400 multiparameter probes.

Composite samples were collected using automatic samplers, which worked in conjunction with flowmeters. After a predetermined volume of flow was discharged, the flowmeters triggered the sampler to collect a subsample. Each subsample was deposited into a 15-liter carboy, resulting in a flow-proportional composite sample. The composite samples were submitted to WQL where they were split for analysis. The following constituents were analyzed: biological oxygen demand, 5-day ($BOD_5$); chemical oxygen demand (COD); chloride; hardness as calcium carbonate ($CaCO_3$); turbidity; total suspended solids (TSS); total dissolved solids (TDS); total phosphorus (TP); orthophosphate as P; ammonia, as N; nitrate + nitrite, as N; total Kjeldahl nitrogen (TKN); total arsenic; dissolved and total cadmium; dissolved copper; dissolved and total lead; total mercury; and dissolved zinc.

# 3 Americana Subwatershed Monitoring Results

This section describes water level monitoring results and water quality results and provides high-level conclusions and outcomes based on WY 2025 data.

## 3.1 Water Level Monitoring Results

For WY 2025, water level data from five monitoring sites (AS_1, AS_4, AS_7, AS_9, and Site 14) were evaluated for occurrences of increasing or decreasing water level not attributed to precipitation. Though the pipe size at each site differs, the change in water level is still evident in the data. When a change in water level is seen at one or more sites, the discharge must originate from the site that is farthest “up pipe” in the storm drain system. Figures 3–6 show hydrographs for each quarter of WY 2025. Color bands were applied to the hydrographs to indicate periods where no rain was recorded, but the water level fluctuated at one or more sites for more than two hours. While fluctuations of less than 2 hours were evaluated as non-stormwater sources, these instances were not flagged with color bands to better highlight fluctuations of longer duration in the quarterly summaries. The following conclusions were extracted from visually inspecting the hydrographs:

- Sudden water level increases and decreases were observed, which are likely caused by human-related activities such as turning on a pump or opening a headgate.
- Reoccurring water level spikes were observed at AS_7 beginning between 2330 and 0200. Similar spikes were observed in WY 2023 and WY 2024. Due to the frequency and regularity of these level spikes, color bands were omitted from WY 2025 quarterly summaries unless an AS_7 water level increase aligned with other site(s) to allow for better graph legibility. In October 2024, it was confirmed by ISCO technical support staff that the level readings were accurate based upon corresponding level changes with all sites during rain events and associated changs in temperature during logged non-stormwater level spikes. The consistent timing and duration of these spikes

occurring only at AS_7 may be associated with a pump located on W. River St. or Americana Blvd. downstream of AS_4. An investigation into the source of level spikes at AS_7 is ongoing.

- Concurrent water level increases and decreases were observed at AS_1, AS_4, and AS_9, apart from the fourth quarter where only AS_1 and AS_4 saw level increases. Using the conceptual pipe layout in Figure 2 as a reference, it becomes apparent that there may be two different pipe connections further in the AS_4 and AS_9 subcatchment areas causing water level anomalies. Further investigation is needed to confirm the location of the pipes in the AS_4 and AS_9 subcatchment areas.
- Significant building and road construction activities have been observed in the AS_4 and AS_1 subwatershed areas. Non-stormwater flows attributed to known dewatering activities were omitted from the quarterly summaries.
- Periodic fluctuations in the water level were observed at the AS_1, AS_4, AS_7, and Site 14 stations from July 1, 2025, through August 30, 2025. Due to the regularity and uniformity of the fluctuations, associated color bands were omitted from WY 2025 quarter four summary for graph legibility. The source of the fluctuations is unconfirmed.
- Periodic fluctuations in water level were observed at the AS_1 and Site 14 stations from August 30 to September 27, 2025. Due to the regularity and uniformity of the fluctuations, associated color bands were omitted from the WY 2025 quarter four summary for graph legibility. The source of the fluctuations is unconfirmed.
- Non-stormwater discharge originated from the AS_1 subcatchment 71 times, with the most anomalies occurring in the third quarter (42%).
- Non-stormwater discharge originated from AS_4 subcatchment 26 times, with the most anomalies occurring in the first quarter (35%).
- No anomalies identified were associated with Site 14.

## 3.2 Water Quality Monitoring Results

During WY 2025, water quality samples from wet weather discharges were collected from one subcatchment site (Site 206) to compare with the Americana outfall site (Site 14). Samples were collected from six storm events. A summary of the storm dates and sample types collected is provided in Table 3-1. Attempts were made to collect samples from both Site 14 and Site 206 during the same storm event. When paired samples were successfully collected from both sites, the water quality results were directly compared to one another. Rejected data and results from samples that were collected from only one of the two sites were omitted from the subsequent discussion; however, all accepted and qualified values will be used when calculating statistics for the final report. Comprehensive analytical results from all samples collected are included in Table 2, attached.

Table 3-1. Storm Event Summary

| Storm Event Date | Site 14 | Site 206 |
|---|---|---|
| 12/14/2024 | Grab, Composite | Grab, Composite |
| 1/31/2025 | Composite[1] | Composite[2] |
| 2/23/2025 | Grab, Composite[1] | Grab, Composite |
| 5/17/2025 | Grab, Composite | Grab, Composite[3] |
| 8/26/2025 | -- | Composite[3] |
| 9/29/2025 | Composite[3] | -- |

*– = No data*

*[1] Composite sample qualified due to lack of representativeness (50%–75%).*

*[2] Composite sample rejected due to lack of representativeness (<50%).*

*[3] Composite sample qualified due to exceedance of 6.0° C.*

### 3.2.1 Grab Samples

Paired grab samples were collected from Site 14 and Site 206 on December 14, 2024; February 23, 2025; and May 17, 2025. *E.* coli, dissolved oxygen, pH, conductivity, and temperature results were compared, and notable conclusions from each storm event are provided below.

**December 14, 2024**

- *E. coli* at Site 206 was approximately two times higher than at Site 14.

**February 23, 2025**

- *E. coli* at Site 14 was approximately nine times higher than at Site 206.
- Dissolved oxygen was approximately two times higher at Site 206 than at Site 14.
- Specific conductivity at Site 14 was approximately two times higher at Site 14 than Site 206.
- Temperature was approximately two times higher at Site 14 than Site 206.

**May 17, 2025**

- *E. coli* at Site 206 was approximately twenty-nine times higher than at Site 14.
- Dissolved oxygen at Site 14 was approximately two times higher than at Site 206.

### 3.2.2 Composite Samples

Paired composite samples were collected from Site 14 and Site 206 on December 14, 2024; February 23, 2025; and May 17, 2025.

Event-specific pollutant loads for each analyzed constituent were calculated by multiplying the volume of discharge as measured at the site by the constituent concentration. When constituent concentrations were less than the minimum detection limit (MDL), a value of half of the MDL was used in the pollutant load calculation. The pollutant loads, in pounds, are in Table 3, attached.

To evaluate the contribution Site 206 had on the overall pollutant load discharging from the Americana outfall, the percentage of the pollutant load was compared to the percentage of discharge volume. When the percentage of the pollutant load is greater than the percentage of discharge volume, the pollutant load discharging from the subcatchment is disproportionately high. This logic statement is illustrated below.

$$\frac{pollutant\ load\ (lbs) from\ subcatchment}{pollutant\ load\ (lbs) from\ outfall} > \frac{discharge\ volume\ (cf) from\ subcatchment}{discharge\ volume\ (cf) from\ outfall}$$

$$IF$$

$$THEN$$

$$pollutant\ load\ from\ subcatchment\ is\ disproportionately\ high$$

The percent contribution of pollutant load and the percent contribution of discharge volume were calculated for both Site 206 and Site 14 from each storm event (Figures 7, 8, and 9). The graphs include a

vertical orange line indicating the value for the percent of discharge. Constituent loads that exceed the orange line are disproportionately high. Noteworthy outcomes from each paired storm event are presented below.

**December 14, 2024**

- Load contributions from Site 206 were disproportionately high for all constituents except for the following parameters: chloride; hardness as $CaCO_3$; TDS; ammonia, as N; nitrate + nitrite, as N; total arsenic; total and dissolved cadmium; and total mercury.
- The percent of pollutant load from Site 206 was approximately 3.0 times higher than the percent of discharge volume for dissolved lead.
- The percent of pollutant load from Site 206 was approximately 2.0 to 2.5 times higher than the percent of discharge volume for the following parameters: $BOD_5$, COD, total phosphorus, and orthophosphate as P.

**February 23, 2025**

- Load contributions from Site 206 were disproportionately high for all constituents except for the following parameters: hardness as $CaCO_3$; TDS; ammonia, as N; nitrate + nitrite, as N; total arsenic; dissolved cadmium; and dissolved zinc.
- The percent of pollutant load from Site 206 was approximately 4.5 times higher than the percent of discharge volume for dissolved lead.
- The percent of pollutant load from Site 206 was approximately 2.0 to 3.0 times higher than the percent of discharge volume for turbidity and total lead.
- The percent of pollutant load from Site 206 was approximately 1.5 to 2.0 times higher than the percent of discharge volume for the following parameters: $BOD_5$, COD, chloride, TSS, total phosphorus, orthophosphate as P, TKN, and dissolved copper.

**May 17, 2025**

- Load contributions from Site 206 were disproportionately high for all constituents except for the following parameters: chloride; hardness as $CaCO_3$; TDS; nitrate + nitrite, as N; total arsenic; and total cadmium.
- The percent of pollutant load from Site 206 was approximately 3.0 to 3.5 times higher than the percent of discharge volume for dissolved lead and total mercury.
- The percent of pollutant load from Site 206 was approximately 2.5 to 3.0 times higher than the percent of discharge volume for $BOD_5$, total phosphorus, and orthophosphate as P.
- The percent of pollutant load from Site 206 was approximately 1.5 to 2.0 times higher than the percent of discharge volume for the following parameters: COD, turbidity, dissolved copper, and dissolved zinc.

# 4 Quality Assurance/Quality Control

A data validation review process was used to evaluate the analytical and field parameter results. These checklists were used to compare monitoring methods and monitoring data collected against performance criteria established to meet the data quality objectives described in the Quality Assurance Project Plan for NPDES Stormwater Permit Monitoring (QAPP) (ACHD, 2023). Analytical results that were qualified are identified in Table 2 (Appendix B).

## 4.1 QC Sample Results

QC sampling during WY 2025 consisted of a combination of field QC samples, laboratory QC, and equipment QC samples. Field QC sampling intervals followed a predetermined schedule, included in the SWOMP. Equipment QC samples were collected during fall maintenance. Sample results for all field QC samples are included in Table 4 (Appendix B).

### 4.1.1 Field QC Samples

Field QC samples include field duplicates, field blanks, and composite blanks.

Field duplicates are field grab samples that were taken alongside a parent grab sample to compare the accuracy of the data. For *E. coli,* the allowable logarithmic relative percent difference (RPD) between the duplicate sample and the parent sample is 40 percent for values where the parent and duplicates are greater than 10 MPN/100mL. All field duplicate samples collected during WY 2025 met the RPD standard.

Analytical results from field blanks and composite blanks are expected to be less than the MDL. If a water quality parameter is detected in a field blank or composite blank, all analytical results associated with the blank that exhibit a concentration of less than five times the concentration detected in the blank, are qualified. All field blank samples collected had results less than the MDL. No composite blanks were collected or analyzed in WY 2025.

### 4.1.2 Laboratory QC Samples

Laboratory QC samples are composite duplicate samples that are split at WQL. This type of sample serves as a check on the laboratory's ability to representatively split composite samples and is a test of analytical precision. The allowable RPD for all parameters is 20 percent. A composite duplicate was collected for AS_6 on February 23, 2025. The RPD results for dissolved copper and dissolved lead were 28% and 27%, respectively. Therefore, the dissolved copper and dissolved lead are considered estimates. All other parameters from the composite duplicate met the RPD standard.

### 4.1.3 Equipment QC Samples

Equipment QC samples include an equipment blank and a rinsate blank, both serving as a check on equipment decontamination procedures.

The equipment blank is collected before sampling for the water year begins and when new equipment is installed. For WY 2025, the equipment blanks were collected on September 10 and September 14, 2024, at the Americana and AS_6 monitoring stations. Dissolved copper and dissolved zinc were detected in the blanks at Americana and AS_6. However, all dissolved copper and dissolved zinc results were greater than five times the value detected in the blank at AS_6 and are unqualified. Dissolved copper and dissolved zinc results collected at Americana less than five times the value detected in the blank have been qualified and considered estimates. All other results were greater than five times the detected value in the equipment blank and are unqualified.

The rinsate blank is collected after sampling for the water year has been completed. For WY 2025, a rinsate blank was collected from Americana on September 9, 2025. Total lead, dissolved copper, and turbidity were detected in the Americana blank. However, all results collected throughout the WY were greater than five times the values detected in the blanks and are unqualified.

# Appendix A: Figures

Figure 3. Americana Subwatershed Water Level WY 2025 October–December

Figure 4. Americana Subwatershed Water Level WY 2025 January–March

Figure 5. Americana Subwatershed Water Level WY 2025 April–June

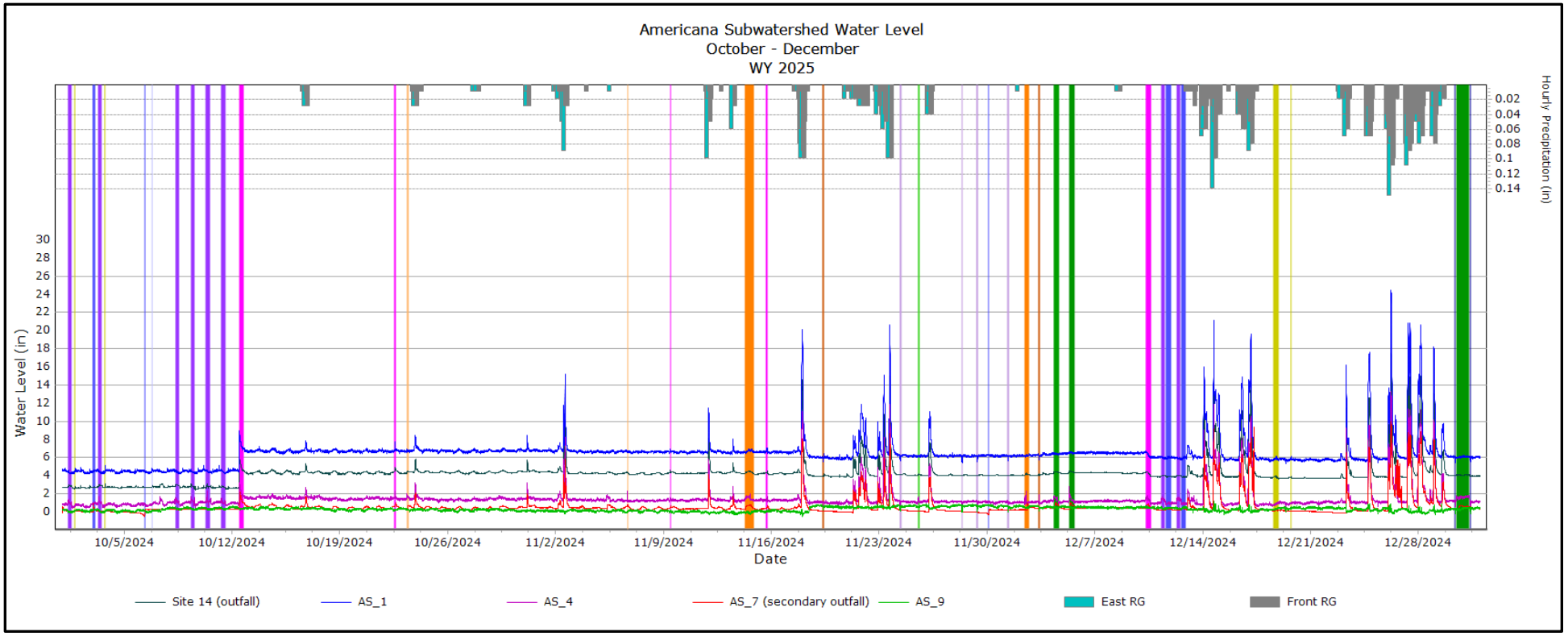
Figure 6. Americana Subwatershed Water Level WY 2025 July–September

Figure 7. Percent Contribution for Storm Event 12/14/2024

Figure 8. Percent Contribution for Storm Event 2/23/2025

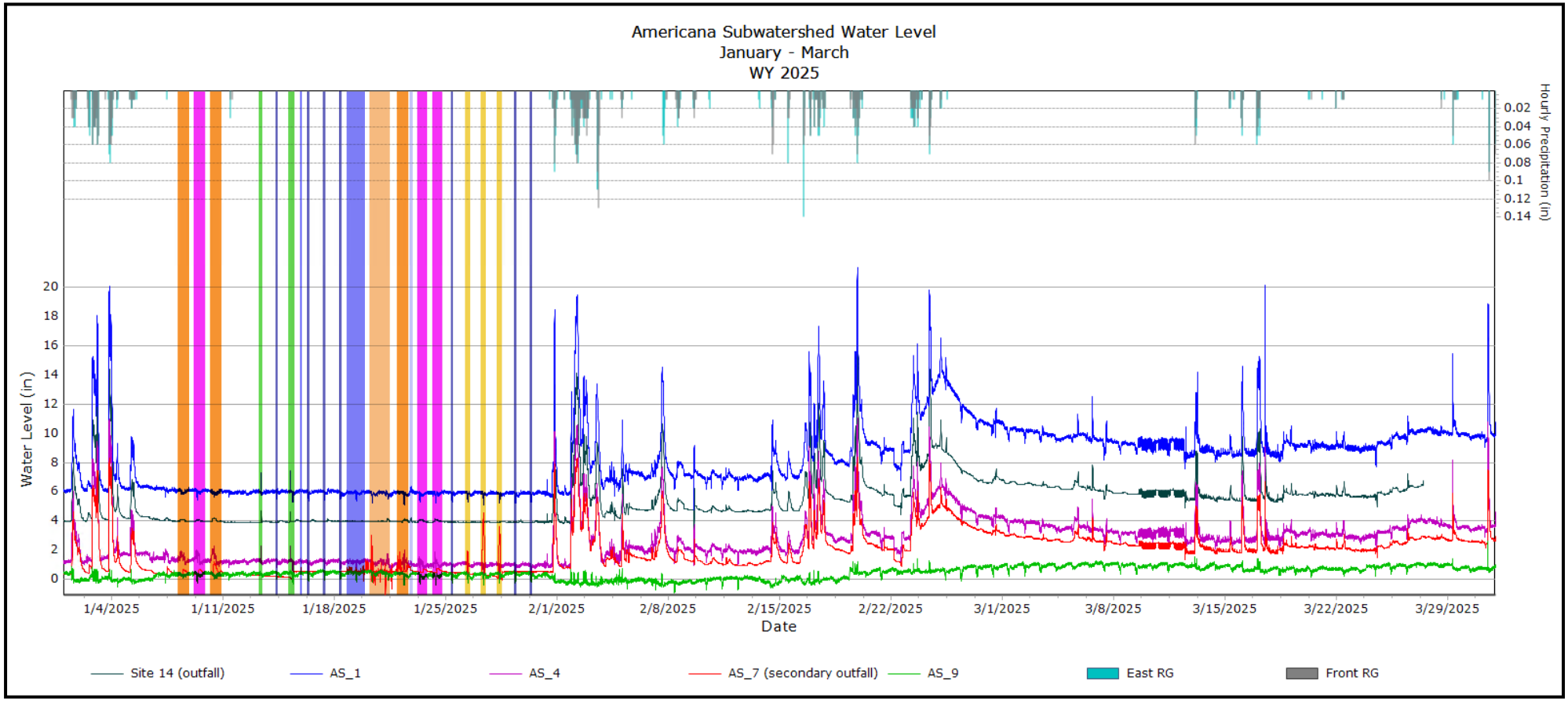
Figure 9. Percent Contribution for Storm Event 5/17/2025

Figure 3. Americana Subwatershed Water Level WY25 October - December



| Color Code | Beginning Date Time | Duration (hrs) | Sites Included | Non-stormwater source |
|---|---|---|---|---|
| | 10/1/2024 8:00:00 | 8.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/1/2024 19:00:00 | 2.5 | AS_1, Site 14 | AS_1 Subcatchment |
| | 10/2/2024 23:30:00 | 5.5 | AS_7 | AS_7 Subcatchment |
| | 10/3/2024 7:30:00 | 7.5 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/3/2024 17:30:00 | 2.5 | AS_1, Site 14 | AS_1 Subcatchment |
| | 10/6/2024 8:00:00 | 2.0 | AS_7 | AS_7 Subcatchment |
| | 10/6/2024 19:30:00 | 2.0 | AS_1 | AS_1 Subcatchment |
| | 10/8/2024 7:30:00 | 8.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/9/2024 7:30:00 | 8.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/10/2024 7:30:00 | 8.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/11/2024 7:30:00 | 8.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 10/12/2024 11:30:00 | 8.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 10/22/2024 13:00:00 | 3.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 10/23/2024 8:00:00 | 5.0 | AS_4 | AS_4 Subcatchment |
| | 11/6/2024 15:00:00 | 2.0 | AS_4 | AS_4 Subcatchment |
| | 11/9/2024 10:00:00 | 3.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 11/14/2024 7:00:00 | 15.0 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |
| | 11/15/2024 16:00:00 | 4.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 11/19/2024 7:30:00 | 4.5 | AS_1, AS_9, AS_4, Site 14 | AS_1 Subcatchment |
| | 11/24/2024 7:30:00 | 4.5 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 11/25/2024 13:00:00 | 3.5 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 11/28/2024 8:00:00 | 3.5 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 11/29/2024 8:00:00 | 3.5 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 11/30/2024 2:00:00 | 3.0 | AS_7 | AS_7 Subcatchment |
| | 12/1/2024 8:00:00 | 3.5 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 12/2/2024 11:00:00 | 8.0 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |
| | 12/3/2024 8:00:00 | 3.5 | AS_1, AS_4, AS_9, Site 14 | AS_1 Subcatchment |
| | 12/4/2024 8:00:00 | 10.5 | AS_4, AS_7 | AS_4 Subcatchment |
| | 12/5/2024 7:30:00 | 11.0 | AS_4, AS_7 | AS_4 Subcatchment |
| | 12/10/2024 7:00:00 | 9.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 12/11/2024 7:00:00 | 7.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 12/11/2024 14:00:00 | 10.5 | AS_7 | AS_7 Subcatchment |
| | 12/12/2024 7:00:00 | 7.0 | AS_4, Site 14 | AS_4 Subcatchment |
| | 12/12/2024 14:00:00 | 9.5 | AS_7 | AS_7 Subcatchment |
| | 12/18/2024 14:00:00 | 9.5 | AS_1, Site 14 | AS_1 Subcatchment |
| | 12/19/2024 16:00:00 | 3.5 | AS_1, Site 14 | AS_1 Subcatchment |
| | 12/30/2024 8:00:00 | 3.5 | AS_8, AS_1, AS_9, AS_4 | AS_8 Subcatchment |
| | 12/30/2024 11:30:00 | 21.0 | AS_4, AS_7 | AS_4 Subcatchment |
| | 12/31/2024 8:00:00 | 3.5 | AS_8, AS_1, AS_9, AS_4 | AS_8 Subcatchment |

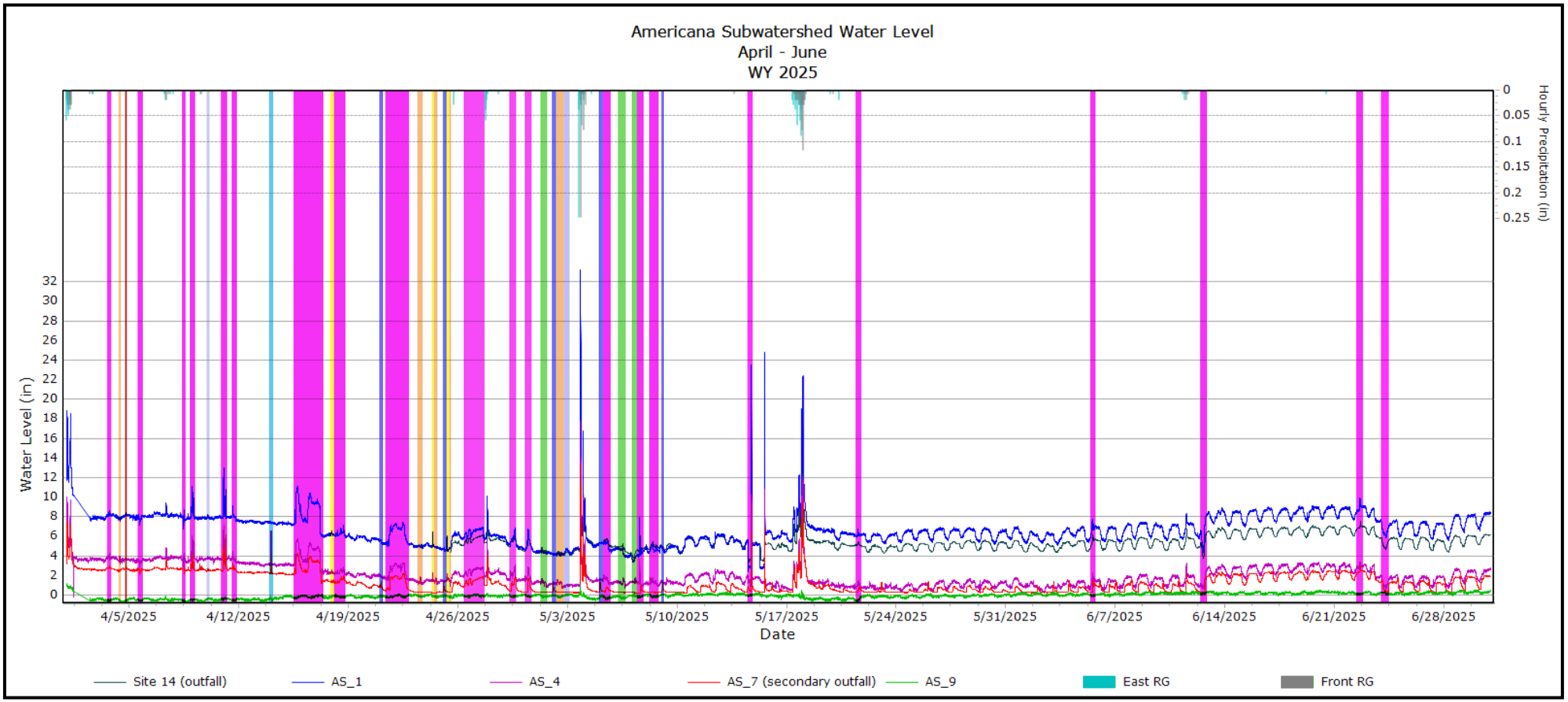
Figure 4. Americana Subwatershed Water Level WY 2025 January–March




Note: Due to known dewatering activities in the AS_1 subcatchment area from early February through the end of March, no color bands were assigned to level spikes or dips originating from the AS_1 subcatchment area.

| Color Code | Beginning Date Time | Duration (hrs) | Sites Included | Non-stormwater source |
|---|---|---|---|---|
| | 1/8/2025 4:30:00 | 18.0 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |
| | 1/9/2025 4:30:00 | 18.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 1/10/2025 4:30:00 | 18.0 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |
| | 1/13/2025 6:30:00 | 6.0 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 1/14/2025 8:30:00 | 3.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/15/2025 3:30:00 | 9.0 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 1/15/2025 20:30:00 | 2.0 | AS_7 | AS_7 Subcatchment |
| | 1/16/2025 6:30:00 | 5.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/17/2025 6:30:00 | 5.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/18/2025 6:30:00 | 5.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/18/2025 19:00:00 | 28.5 | AS_7 | AS_7 Subcatchment |
| | 1/20/2025 5:00:00 | 33.0 | AS_4 | AS_4 Subcatchment |
| | 1/22/2025 0:00:00 | 17.0 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |
| | 1/22/2025 17:00:00 | 6.5 | AS_1 | AS_1 Subcatchment |
| | 1/23/2025 5:00:00 | 16.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 1/24/2025 2:00:00 | 17.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 1/25/2025 8:30:00 | 3.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/26/2025 5:00:00 | 9.5 | AS_1, AS_9, AS_7 | AS_1 Subcatchment |
| | 1/27/2025 5:00:00 | 9.5 | AS_1, AS_9, AS_7 | AS_1 Subcatchment |
| | 1/28/2025 5:00:00 | 9.5 | AS_1, AS_9, AS_7 | AS_1 Subcatchment |
| | 1/29/2025 6:30:00 | 5.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |
| | 1/30/2025 6:30:00 | 5.0 | AS_1, AS_9, AS_4 | AS_1 Subcatchment |

Figure 5. Americana Subwatershed Water Level WY 2025 April–June

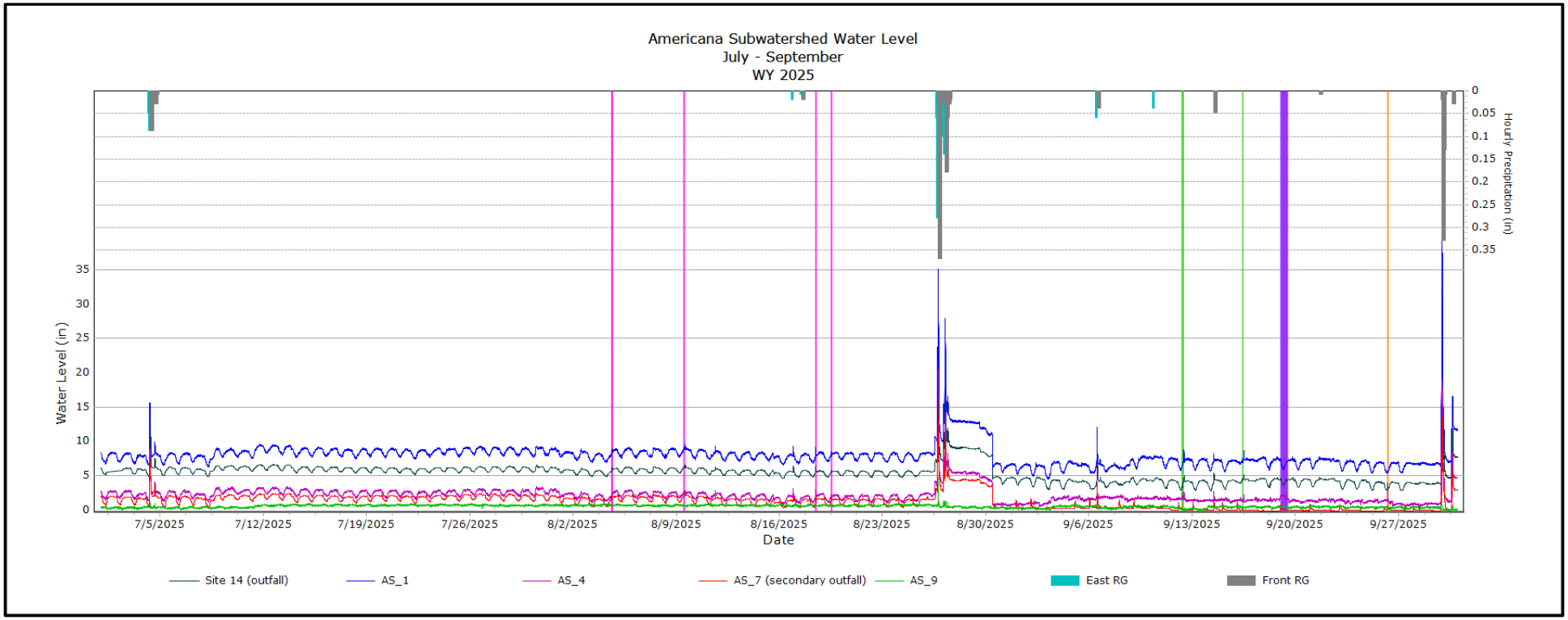



Notes: (1) Periodic fluctuations in the water level were observed at the AS_1, AS_4, AS_7, and Site 14 stations from May 9, 2025, at 0500 through May 14, 2025, at 1530 and May 21, 2025, at 2100 through June 30, 2025, at 2330. Fluctuations were observed approximately every 20 hours with reduced water levels lasting for approximately 10 hours. Due to the regularity and uniformity of the fluctuations, color bands were omitted from this summary for graph legibility. The source of these fluctuations is unconfirmed.

(2) From April 1, 2025, to April 25, 2025, the flow level equipment at Site 14 was uninstalled due to a Boise River surcharge. During this period, various anomalies were observed at the AS_1, AS_4, and AS_7 sites. Despite the absence of level data from Site 14, it is reasonable to assume that Site 14 would be included in the anomaly affecting AS_1, AS_4, and AS_7 based on historical data observations.

| Color Code | Beginning Date Time | Duration (hrs) | Sites Included | Non-stormwater source |
|---|---|---|---|---|
| | 4/3/2025 14:30:00 | 6.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/4/2025 8:00:00 | 4.0 | AS_4 | AS_4 Subcatchment |
| | 4/4/2025 18:00:00 | 3.0 | AS_1, AS_7 | AS_1 Subcatchment |
| | 4/5/2025 12:00:00 | 9.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/8/2025 9:30:00 | 5.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/8/2025 20:30:00 | 9.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/9/2025 23:00:00 | 4.5 | AS_1 | AS_1 Subcatchment |
| | 4/10/2025 21:00:00 | 10.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/11/2025 13:00:00 | 9.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/13/2025 22:00:00 | 8.5 | AS_9, AS_4, AS_7 | AS_9 Subcatchment |
| | 4/15/2025 11:00:00 | 48.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/17/2025 21:00:00 | 6.5 | AS_1, AS_4 | AS_1 Subcatchment |
| | 4/18/2025 3:30:00 | 18.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/21/2025 0:00:00 | 6.5 | AS_7 | AS_7 Subcatchment |
| | 4/21/2025 8:00:00 | 39.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/23/2025 10:00:00 | 9.5 | AS_4 | AS_4 Subcatchment |
| | 4/24/2025 8:30:00 | 3.0 | AS_1, AS_4 | AS_1 Subcatchment |
| | 4/24/2025 11:30:00 | 6.5 | AS_4 | AS_4 Subcatchment |
| | 4/25/2025 0:00:00 | 5.5 | AS_7 | AS_7 Subcatchment |
| | 4/25/2025 5:30:00 | 5.0 | AS_1, AS_4 | AS_1 Subcatchment |
| | 4/25/2025 10:30:00 | 3.0 | AS_4 | AS_4 Subcatchment |
| | 4/26/2025 8:30:00 | 33.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/29/2025 7:00:00 | 12.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 4/30/2025 7:00:00 | 12.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 5/1/2025 6:30:00 | 12.5 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 5/2/2025 0:00:00 | 6.0 | AS_7 | AS_7 Subcatchment |
| | 5/2/2025 6:00:00 | 13.0 | AS_4 | AS_4 Subcatchment |
| | 5/2/2025 19:00:00 | 10.0 | AS_1 | AS_1 Subcatchment |
| | 5/5/2025 0:00:00 | 6.0 | AS_7 | AS_7 Subcatchment |
| | 5/5/2025 6:00:00 | 13.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 5/6/2025 6:00:00 | 13.5 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 5/7/2025 3:00:00 | 7.0 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 5/7/2025 10:00:00 | 12.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 5/8/2025 5:00:00 | 17.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 5/9/2025 0:00:00 | 5.0 | AS_7 | AS_7 Subcatchment |
| | 5/14/2025 14:30:00 | 9.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 5/21/2025 10:00:00 | 11.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 6/5/2025 10:00:00 | 10.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 6/12/2025 10:00:00 | 12.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 6/22/2025 10:00:00 | 12.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 6/24/2025 0:30:00 | 13.0 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |

Figure 6. Americana Subwatershed Water Level WY 2025 July - September




Notes: (1) Periodic fluctuations in the water level were observed at the AS_1, AS_4, AS_7, and Site 14 stations from July 1, 2025, through August 30, 2025, each lasting approximately 12 hours. Due to the regularity and uniformity of the fluctuations, they were omitted from this summary. The source of these fluctuations is unconfirmed.

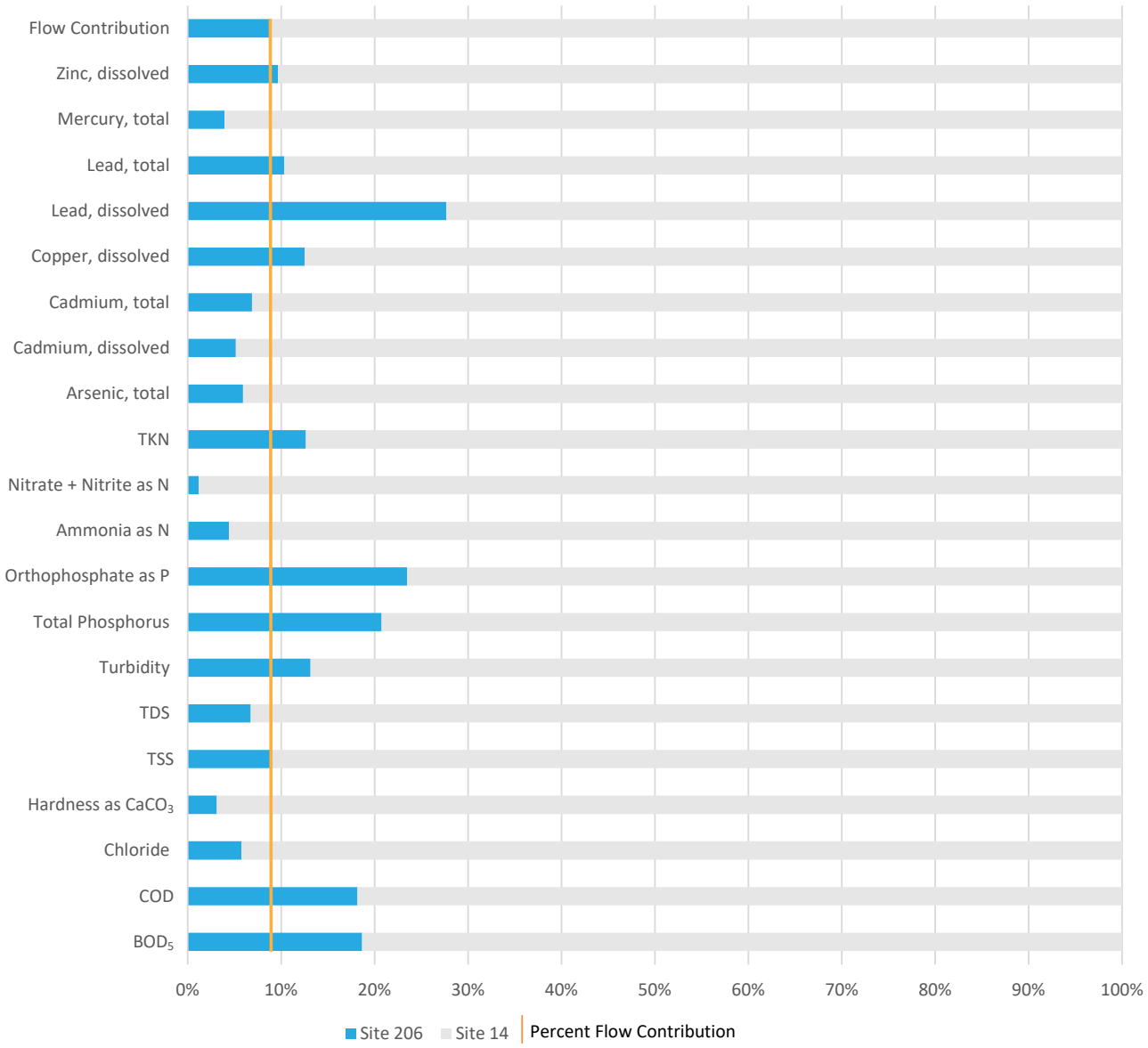
(2) Periodic fluctuations in water level were observed at the AS_1 and Site 14 stations from August 30 to September 27, 2025. Due to the regularity and uniformity of the fluctuations, color bands were omitted from this summary for graph legibility. The source of these fluctuations is unconfirmed.

(3) Reoccurring level spikes were observed at AS_7 beginning September 1 through September 28. These spikes begin approximately between 2330 and 0200. Color bands been omitted from this summary due to uniformity of the spikes and similar observations in WY 2023 and WY 2024 for graph legibility.

(4) No data was collected at the East rain gauge from 9/11/2025 to 10/1/2025.

| Color Code | Beginning Date Time | Duration (hrs) | Sites Included | Non-stormwater source |
|---|---|---|---|---|
| | 8/4/2025 14:35:00 | 2.5 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 8/9/2025 12:15:00 | 4 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 8/18/2025 10:45:00 | 2 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 8/19/2025 12:00:00 | 2 | AS_1, AS_4, AS_7, Site 14 | AS_1 Subcatchment |
| | 9/12/2025 7:25:00 | 4 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 9/16/2025 9:50:00 | 3 | AS_1, AS_4, Site 14 | AS_1 Subcatchment |
| | 9/18/2025 23:00:00 | 15 | AS_4, Site 14 | AS_4 Subcatchment |
| | 9/26/2025 6:00:00 | 2 | AS_4, AS_7, Site 14 | AS_4 Subcatchment |

Figure 7. Percent Contribution 12/14/2024



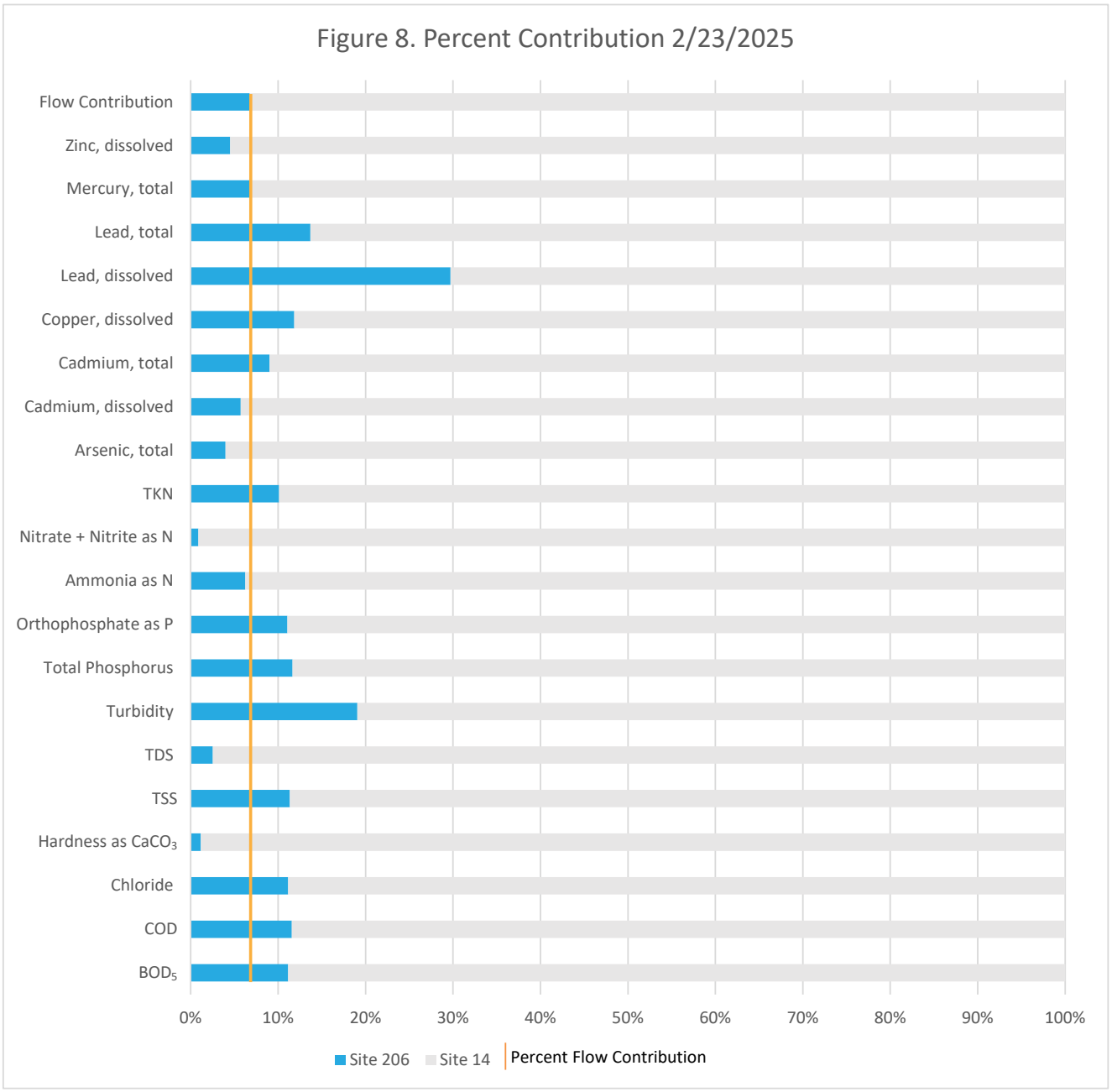
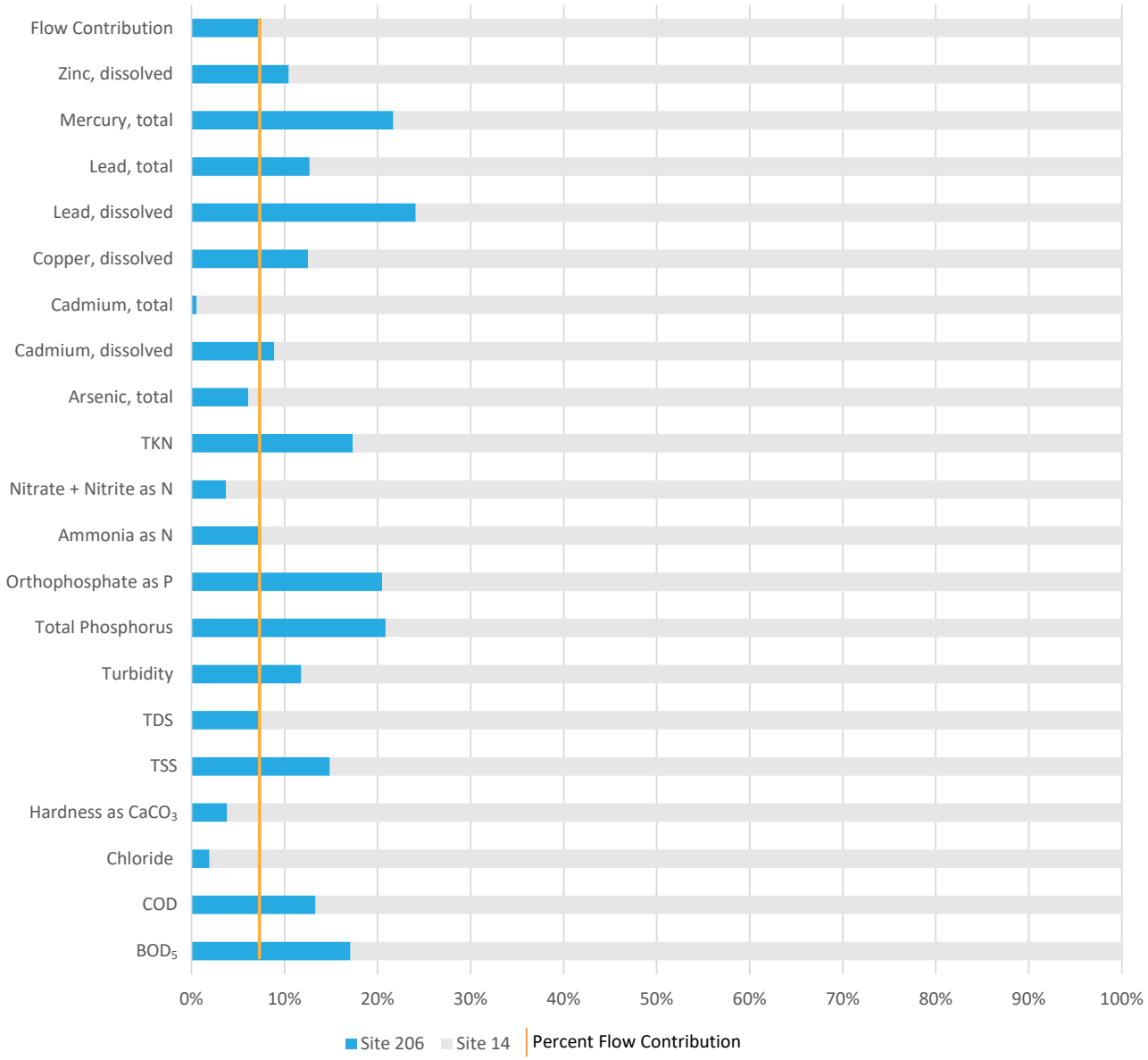

Figure 8. Percent Contribution 2/23/2025
Flow Contribution
Zinc, dissolved
Mercury, total
Lead, total
Lead, dissolved
Copper, dissolved
Cadmium, total
Cadmium, dissolved
Arsenic, total
TKN
Nitrate + Nitrite as N
Ammonia as N
Orthophosphate as P
Total Phosphorus
Turbidity
TDS
TSS
Hardness as $CaCO_3$
Chloride
COD
$BOD_5$
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Site 206
Site 14
Percent Flow Contribution

Figure 9. Percent Contribution 5/17/2025



# Appendix B: Tables

Table 1. Monitoring Site Information

Table 2. Field and Analytical Data Summary

Table 3. Event Pollutant Loading Estimates in Pounds

Table 4. QC Sample Summary

Table 1. Monitoring Site Information

| Location Name | Study ID | Latitude/ Longitude | Manhole ID (SWMM File) | Manhole ID (Americana Manholes Files) | Subcatchment Total Area (acres) | Subcatchment Impervious Area (acres) | Pipe Diameter (in) | Pipe Construction | Manning's Coefficient (n value) | Pipe Slope | Water Level During Installation (in) | Equipment ID | Equipment Deploy Start Date | Equipment Deploy End Date | Installation Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Americana Monitoring Station | Site 14 | 43°36'57.93"N 116°13'16.37"W | NA | NA | 915 | 291 | 48 | concrete | NA | NA | NA | Hach Flowmeter (FL-23) | 2013 | 9/8/2020 | |
| | | | | | | | | | | | | Hach Sampler (SA-17) | 2013 | 9/8/2020 | |
| | | | | | | | | | | | | ISCO Signature Flowmeter (FL-29) | 9/8/2020 | NA | |
| | | | | | | | | | | | | ISCO 6712 Sampler (SA-20) | 9/8/2020 | NA | |
| 16th_Front | AS_1 | 43°37'7.57"N 116°12'52.66"W | J87872 | 33634 | 869 | 255 | 42 | concrete | 0.015 | 0.0001 | 4.13 | HOBO Logger (SN:20029104) | 8/10/2018 | 9/15/2023 | Logger installed downstream of manhole with conduit facing downstream |
| | | | | | | | | | | | | ISCO 2150 Flowmeter | 10/25/2019 | 1/24/2020 | |
| | | | | | | | | | | | | HOBO Logger (SN:20029102) | 9/15/2023 | 11/7/2023 | |
| | | | | | | | | | | | | HOBO Logger (SN:20029105) | 11/7/2023 | NA | |
| Americana_River_South | AS_2 | 43°37'4.63"N 116°13'0.20"W | J5567 | 35568 | 39 | 28 | 42 | concrete | 0.015 | 0.0001 | 1.5 | HOBO Logger (SN:20029109) | 8/10/2018 | 4/28/2020 | Large pipe downstream of manhole (south) that leads to secondary outfall with conduit facing downstream |
| Americana_River_East | AS_3 | 43°37'4.63"N 116°13'0.20"W | J5567 | 35568 | 10 | 5 | 16 | concrete | 0.015 | 0.0001 | 2 | HOBO Logger (SN:20029106) | 8/10/2018 | 1/6/2021 | Small pipe upstream of manhole (east) with conduit facing upstream |
| Americana_River | AS_4 | 43°37'4.63"N 116°13'0.20"W | J5567 | 35568 | 29 | 23 | 42 | concrete | 0.015 | 0.0001 | NA | HOBO Logger (SN:20029101) | 8/10/2018 | 3/7/2024 | Large pipe upstream of manhole (north) with conduit perpendicular to flow |
| | | | | | | | | | | | 2.7 | ISCO 2150 Flowmeter | 7/10/2020 | 3/5/2021 | Water level at installation: 2.7 inches |
| | | | | | | | | | | | 2 | HOBO Logger (SN:20029102) | 3/7/2024 | 4/2/2024 | Water level at installation: 2.0 inches |
| | | | | | | | | | | | 3 | HOBO Logger (SN:21904490) | 4/2/2024 | NA | Water level at installation: 3.0 inches |
| 15th_Resseguie | AS_5 | 43°37'36.17"N 116°12'21.10"W | J5577 | 23810 | 289 | 49 | 30 | concrete | 0.015 | 0.0001 | 1.5 | HOBO Logger (SN:20029105) | 8/10/2018 | 2/17/2023 | Logger installed downstream of manhole with conduit facing downstream |
| 14th_Resseguie | AS_6 | 43°37'35.73"N 116°12'16.60"W | J16834 | 13187 | 206 | 23 | 22 | corrugated metal | 0.024 | 0.0001 | NA | HOBO Logger (SN:20029102) | 8/17/2018 | 3/7/2023 | Installed downstream of vault |
| | Site 206 | 43°37'35.73"N 116°12'16.60"W | J16834 | 13187 | 203 | 22 | 22 | corrugated metal | 0.024 | 0.0001 | NA | Hach Flowmeter (FL-25) | 1/23/2020 | 3/4/2020 | Installed upstream of vault, and has a smaller drainage area than AS_6. |
| | | | | | | | | | | | | Hach Flowmeter (FL-18) | 3/4/2020 | 4/18/2024 | |
| | | | | | | | | | | | | Hach Sampler (SA-11) | 1/23/2020 | 10/9/2020 | |
| | | | | | | | | | | | | Hach Sampler (SA-13) | 10/9/2020 | 9/16/2024 | |
| | | | | | | | | | | | | Hach Sampler (SA-14) | 9/16/2024 | 12/10/2024 | |
| | | | | | | | | | | | | Hach Sampler (SA-09) | 12/10/2021 | 4/18/2024 | |
| | | | | | | | | | | | | Hach Flowmeter (FL-31) | 9/18/2024 | 3/18/2025 | |
| | | | | | | | | | | | | Hach Sampler (SA-17) | 9/18/2024 | NA | |
| | | | | | | | | | | | | Hach Flowmeter (FL32) | 3/18/2025 | NA | |
| Americana East | AS_7 | 43°36'57.66"N 116°13'17.75"W | NA | NA | 40 | 30 | 42 | concrete | 0.015 | 0.0001 | NA | ISCO 2150 Flowmeter | 1/10/2019 | NA | ISCO flowmeter installed |
| 13th_Lemp to Heron | AS_8 | 43°37'59.66"N 116°12'11.80"W | NA | NA | 0.7 | 0.4 | 36 | corrugated metal | 0.024 | 0.0001 | NA | HOBO logger (SN: 20029106) | 2/24/2023 | 11/7/2023 | |
| | | | | | | | | | | | | HOBO logger (SN:20029104) | 11/7/2023 | 7/14/2025 | |
| 16th_Rhodes | AS_9 | 43°37'7.18"N 116°12'52.07"W | NA | NA | 10 | 5 | 21 | concrete | 0.015 | 0.0001 | NA | HOBO logger (SN:20029109) | 2/24/2023 | 4/2/2024 | There was a data gap between 9/15/2023 and 11/7/2023 because of a dead battery and no replacements.<br>The manufacture sent back the logger and was reinstalled.<br>Logger was unistalled on 4/2/2024 and replaced with SN:21904491. |
| | | | | | | | | | | | | HOBO logger (SN:21904491) | 4/2/2024 | NA | |

Table 2. Field and Analytical Data Summary

| Sample Date | Monitoring Station | Sample ID Grab | Field Parameters | | | | Analytical Parameters | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen | pH | Conductivity | Temperature | E. coli | Sample ID Composite | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | mg/L | S.U. | µS/cm | C | MPN/100 mL | | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| 12/14/2024 | Site 14 | 241214-14-WG | 10.69 | 7.60 | 596.06 | 7.48 | 517.2 | 241214-14-WC | 14.8 | 75.0 | 150 | 107 | 31.8 | 42.3 | 360 | 0.347 | 0.212 | 0.251 | 0.778 | 1.17 | 3.4 | 0.034 | 0.091 | $3.2^{3}$ | 0.15 | 3.8 | 0.0119 | 24.3 |
| | Site 206 | 241214-206-WG | 10.49 | 7.73 | 533.81 | 5.16 | 1,299.7 | 241214-206-WC | 34.9 | 171 | 94.0 | 35.3 | 49.4 | 43.5 | 267 | 0.934 | 0.668 | 0.119 | 0.0960 | 1.74 | 2.2 | 0.019 | 0.069 | 4.7 | 0.59 | 4.5 | <0.0100 | 26.7 |
| 1/31/2025 | Site 14 | -- | -- | -- | -- | -- | -- | 250131-14-WC | $22.6^{1}$ | $153^{1}$ | $176^{1}$ | $98.5^{1}$ | $97.7^{1}$ | $118^{1}$ | $378^{1}$ | $0.365^{1}$ | $0.157^{1}$ | $0.851^{1}$ | $0.734^{1}$ | $2.31^{1}$ | $3.7^{1}$ | $0.024^{1}$ | $0.14^{1}$ | $3.8^{1,3}$ | $0.091^{1}$ | $7.0^{1}$ | $0.0144^{1}$ | $35.0^{1}$ |
| | Site 206 | -- | -- | -- | -- | -- | -- | 250131-206-WC | $38.8^{1R}$ | $250^{1R}$ | $37.6^{1R}$ | $33.5^{1R}$ | $144^{1R}$ | $230^{1R}$ | $126^{1R}$ | $0.740^{1R}$ | $0.384^{1R}$ | $0.941^{1R}$ | $0.267^{1R}$ | $4.33^{1R}$ | $2.8^{1R}$ | $0.015^{1R}$ | $0.15^{1R}$ | $4.6^{1R}$ | $0.27^{1R}$ | $10.6^{1R}$ | $0.0145^{1R}$ | $27.9^{1R}$ |
| 2/23/2025 | Site 14 | 250223-14-WG | 5.59 | 8.04 | 714.07 | 12.19 | 17.3 | 250223-14-WC | $3.56^{1}$ | $31^{1}$ | $72.4^{1}$ | $87.8^{1}$ | $13.9^{1}$ | $21.3^{1}$ | $214^{1}$ | $0.123^{1}$ | $0.0604^{1}$ | $0.0779^{1}$ | $0.687^{1}$ | $0.583^{1}$ | $3.4^{1}$ | $0.012^{1}$ | $0.032^{1}$ | $2.0^{1,3}$ | $0.036^{1}$ | $1.9^{1}$ | $<0.0100^{1}$ | $15.4^{1,3}$ |
| | Site 206 | 250223-206-WG | 10.85 | 8.23 | 320.50 | 6.25 | 161.6 | 250223-206-WC | 6.17 | 56.0 | 17.8 | 14.4 | 45.2 | 37.6 | 76.5 | 0.224 | 0.104 | 0.0719 | 0.0847 | 0.905 | 2.1 | <0.0100 | 0.044 | $3.7^{4}$ | $0.21^{4}$ | 4.2 | <0.0100 | 10.1 |
| 5/17/2025 | Site 14 | 250517-14-WG | 8.39 | 6.93 | 385.45 | 15.56 | 248.9 | 250517-14-WC | 25.4 | 132 | 17.2 | 53.9 | 38.9 | 74.8 | 104 | 0.320 | 0.163 | 0.323 | 0.429 | 1.64 | 3.0 | 0.012 | 0.070 | 5.0 | 0.10 | 4.1 | <0.0100 | 26.8 |
| | Site 206 | 250517-206-WG | 4.81 | 6.96 | 216.39 | 16.29 | 7,270 | 250517-206-WC | $67.6^{2}$ | $262^{2}$ | 4.36 | 27.8 | $67.3^{2}$ | $169^{2}$ | $106^{2}$ | $1.09^{2}$ | $0.543^{2}$ | $0.338^{2}$ | $0.213^{2}$ | $4.45^{2}$ | 2.5 | $0.015^{2}$ | 0.10 | $9.4^{2}$ | $0.41^{2}$ | 7.7 | 0.0179 | $40.4^{2}$ |
| 8/26/2025 | Site 206 | -- | -- | -- | -- | -- | -- | 250826-206-WC | $311^{2}$ | $773^{2}$ | 6.92 | 64.3 | $285^{2}$ | $496^{2}$ | $391^{2}$ | $2.60^{2}$ | $1.33^{2}$ | $2.26^{2}$ | $0.922^{2}$ | $11.5^{2}$ | 9.8 | $0.037^{2}$ | 0.31 | $16.7^{2}$ | $0.64^{2}$ | 20.8 | 0.0641 | $108^{2}$ |
| 9/29/2025 | Site 14 | -- | -- | -- | -- | -- | -- | 250929-14-WC | $46.4^{2}$ | $215^{2}$ | 6.64 | 35.1 | $32.3^{2}$ | $171^{2}$ | $87.5^{2}$ | $0.637^{2}$ | $0.277^{2}$ | $0.695^{2}$ | $0.470^{2}$ | $3.38^{2}$ | 3.9 | $<0.0100^{2}$ | 0.18 | $5.3^{2}$ | $0.18^{2}$ | 11.7 | 0.0249 | $31.0^{2}$ |

*Notes:*

*– No data*

[1] *Composite sample qualified due to lack of representativeness (50%–75%).*

[2] *Composite sample qualified due to exceedance of 6.0° C .*

[3] *Analytical parameter is qualified due to being less than five times the value detected in the equipment blank.*

[4] *Relative percent difference was greater than 20% and both parent and QC samples were greater than five times the method detection limit. Values are considered estimates.*

[1R] *Composite sample rejected due to lack of representativeness (<50%).*

Table 3. Event Pollutant Loading Estimates in Pounds

| Event Date | $BOD_5$ | | COD | | Chloride | | Hardness as $CaCO_3$ | | Turbidity | | TSS | | TDS | | Total Phosphorus | | Orthophosphate as P | | Ammonia as N | | Nitrate + Nitrite as N | | TKN | | Arsenic, total | | Cadmium, dissolved | | Cadmium, total | | Copper, dissolved | | Lead, dissolved | | Lead, total | | Mercury, total | | Zinc, dissolved | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 | Site 14 | Site 206 |
| 12/14/2024 | 116.6 | 26.8 | 591.0 | 131 | 1182 | 72.1 | 843 | 27.1 | 250.6 | 37.9 | 333.3 | 33 | 2837 | 205 | 2.734 | 0.72 | 1.671 | 0.512 | 1.978 | 0.091 | 6.131 | 0.07 | 9.22 | 1.33 | 0.03 | 0.002 | 0.00027 | 0.000015 | 0.00072 | 0.000053 | 0.025 | 0.0036 | 0.00118 | 0.000453 | 0.030 | 0.0035 | 0.0000938 | 0.00000384[5] | 0.191 | 0.0205 |
| 2/23/2025 | 68.86[1] | 8.64 | 600[1] | 78.4 | 1400.4[1] | 24.9 | 1698.3[1] | 20.2 | 268.9[1] | 63.3 | 412[1] | 52.7 | 4139[1] | 107.1 | 2.379[1] | 0.314 | 1.1683[1] | 0.146 | 1.5068[1] | 0.1007 | 13.288[1] | 0.1186 | 11.277[1] | 1.268 | 0.07[1] | 0.003 | 0.00023[1] | 0.000014 | 0.000621 | 0.000062 | 0.039[1,3] | 0.0052[4] | 0.000696[1] | 0.000294[4] | 0.037[1] | 0.0059 | 0.0000967[1,5] | 0.00000700[5] | 0.298[1,3] | 0.0141 |
| 5/17/2025 | 390.3 | 80.4[2] | 2029 | 312[2] | 264.3 | 5.19 | 828 | 33.1 | 597.8 | 80.1[2] | 1149 | 201[2] | 1598 | 126[2] | 4.918 | 1.297[2] | 2.505 | 0.646[2] | 4.96 | 0.402[2] | 6.593 | 0.253[2] | 25.20 | 5.29[2] | 0.05 | 0.003 | 0.00018 | 1.82E-05 | 0.0011 | 0.0000059[5] | 0.077 | 0.011[2] | 0.001537 | 0.000488[2] | 0.063 | 0.0092 | 0.0000768[5] | 0.0000213 | 0.412 | 0.0481[2] |

*Notes:*

[1] *Composite sample qualified due to lack of representativeness (50%–75%).*

[2] *Composite sample qualified due to exceedance of 6.0° C .*

[3] *Analytical parameter is qualified due to being less than five times the value detected in the equipment blank.*

[4] *Relative percent difference was greater than 20% and both parent and QC samples were greater than five times the method detection limit. Values are considered estimates.*

[5] *Concentrations are below the method detection limit (MDL). A value of half the MDL was used in calculations.*

| Table 4. QC Sample Summary | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event Date | Parent Sample | Sample ID | QC Sample Type | Analytical Parameters | | | | | | | | | | | | | | | | | | | |
| | | | | E. coli | $BOD_5$ | COD | Chloride | Hardness as $CaCO_3$ | Turbidity | TSS | TDS | Total Phosphorus | Orthophosphate as P | Ammonia as N | Nitrate + Nitrite as N | TKN | Arsenic, total | Cadmium, dissolved | Cadmium, total | Copper, dissolved | Lead, dissolved | Lead, total | Mercury, total | Zinc, dissolved |
| | | | | MPN/100 mL | mg/L | mg/L | mg/L | mg/L | NTU | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| September 10, 2024 | -- | 240910-14-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | <0.0500 | <0.0100 | <0.0200 | 0.93 | <0.0100 | <0.0100 | <0.0100 | 4.0 |
| September 17, 2024 | -- | 240917-206-003 | Equipment blank | -- | <2.00 | <7.00 | -- | <0.100 | <0.3 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | <0.0500 | <0.0100 | <0.0200 | 0.37 | <0.0100 | <0.0100 | <0.0100 | 1.6 |
| December 14, 2024 | Americana grab | 241214-14-001 | Field blank | <1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Americana grab | 241214-14-101 | Field duplicate | 727.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | **Calculated parent/duplicate RPD** | | | **4%** | – | – | -- | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| February 23, 2025 | AS_6 Composite | 250223-206-103 | Lab duplicate/ composite split | -- | 6.18 | 61.0 | 18.3 | 14.4 | 46.3 | 36.8 | 75.0 | 0.222 | 0.103 | 0.0784 | 0.0970 | 0.941 | 2.0 | <0.0100 | 0.038 | 4.9 | 0.16 | 4.0 | <0.0100 | 9.6 |
| | **Calculated parent/duplicate RPD** | | | -- | **0%** | **9%** | **3%** | **0%** | **2%** | **2%** | **2%** | **1%** | **1%** | **9%** | **14%** | **4%** | **5%** | **0%** | **15%** | **28%** | **27%** | **5%** | **0%** | **5%** |
| September 9, 2025 | – | 250909-14-004 | Rinsate blank | – | <2.00 | <7.00 | <0.500 | <0.100 | 0.4 | <0.900 | <25.0 | <0.0120 | <0.003 | <0.0450 | <0.0250 | <0.100 | <0.0500 | <0.0100 | <0.0100 | 0.29 | <0.005 | 0.030 | <0.0100 | <0.500 |
| Allowable RPD | | | | 40% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |

*-- = No data.*

# 2025 Attachment Q - Temperature Monitoring Summary WY 2025

# Temperature Monitoring Summary

## Water Year 2025

Prepared by
Ada County Highway District
January 8, 2026

# Table of Contents

1 Introduction ..... 1

2 Monitoring Sites, Equipment, and Sample Type ..... 1

3 Results ..... 2

Appendix A: Figures ..... A-1

# 1 Introduction

Ada County Highway District, Boise State University, City of Boise, City of Garden City, Drainage District #3, and the Idaho Transportation Department District #3 (Permittees) were issued a National Pollutant Discharge Elimination System Phase I Permit #IDS027561 (Permit) on October 1, 2021. The Permit authorizes the Permittees to discharge from municipal separate storm sewer (MS4) outfalls to the Boise River and its tributaries. According to Permit Part 4.1, *Temperature Monitoring,* Permittees must monitor temperature in stormwater discharges from the MS4 to the Boise River including assessment units 17050114SW005_06, 17050114SW005_06a, and 17050114SW005_06b. The Boise River assessment units (AU) within the Permit area are 17050114SW011a_06 and 17050114SW005_06. The remaining two AUs, 17050114SW005_06a and 17050114SW005_06b, are not in the Permit area and therefore do not receive Permittee stormwater contributions. Temperature data is collected from all water quality samples collected from the MS4 to the Boise River and other waterways. The following summary provides temperature data collected during water year (WY) 2025 (October 1, 2024 – September 30, 2025) from the MS4 directly to the Boise River assessment units 17050114SW011a_06 and 17050114SW005_06.

# 2 Monitoring Sites, Equipment, and Sample Type

Temperature monitoring occurred at 9 outfalls that discharge to the Boise River assessment units 17050114SW011a_06 and 17050114SW005_06. Temperature measurements are collected as either discrete or continuous. Discrete measurements represent one instance in time and were measured manually using In-Situ AquaTROLL multiparameter probes. Continuous measurements were taken at specified intervals by equipment installed at the outfall sites. In WY 2025, continuous temperature readings were taken at four outfall locations: three using ISCO area velocity sensors and one using a HOBO TidbiT temperature logger. Table 2-1 below shows the number of outfalls where temperature data was collected, the outfall ID, sample type, receiving water and assessment unit designation. Figure 1 is a map of the sampled outfall locations.

Table 2-1. Temperature Monitored Outfalls

| Receiving Water | Assessment Unit | # of Temperature Monitored Outfalls | Outfall ID (Station Name) | Sample Type |
|---|---|---|---|---|
| Boise River | 17050114SW011a_06 | 8 | 3n2e04_010 (Main/ Main Alt) | Discrete and Continuous |
| | | | 3n2e09_024 (Americana) | Discrete and Continuous |
| | | | 3n2e09_025 (AS_7) | Continuous |
| | | | 3n2e10_012 | Discrete |
| | | | 3n2e10_022 | Discrete |
| | | | 3n2e10_031 | Discrete |
| | | | 3n2e14_013 | Discrete |
| | | | 3n2e24_006 | Discrete |
| | 17050114SW005_06 | 1 | 4n2e30_012 (Plantation) | Continuous |

# 3 Results

All discrete dry weather and wet weather temperature results collected during WY 2025 are provided in Table 3-1, organized by outfall ID and date. Figure 2 provides a visual representation of the results derived from dry weather or wet weather discharges, symbolized by a circle or star, respectively.

| Table 3-1. Discrete Temperature Results | | | |
|---|---|---|---|
| Outfall ID (Station Name) | Date | Weather | Temperature (C) |
| 3n2e04_010 (Main/ Main Alt) | 12/14/2024<br>2/23/2025<br>5/17/2025 | Wet Weather | 6.56<br>7.74<br>17.60 |
| 3n2e09_024 (Americana) | 1/7/2025<br>9/17/2025 | Dry Weather | 14.03<br>19.46 |
| 3n2e09_024 (Americana) | 12/14/2024<br>2/23/2025<br>5/17/2025 | Wet Weather | 7.48<br>12.19<br>15.56 |
| 3n2e10_012 | 1/17/2025<br>9/23/2025 | Dry Weather | 10.6<br>17.28 |
| 3n2e10_022 | 1/7/2025<br>8/6/2025 | Dry Weather | 14.52<br>18.97 |
| 3n2e10_031 | 6/17/2025 | Dry Weather | 16.59 |
| 3n2e14_013 | 6/26/2025 | Dry Weather | 14.77 |
| 3n2e24_006 | 9/25/2025 | Dry Weather | 21.14 |

Graphs of continuous temperature results are found in Figures 3-6. Figure 3 depicts continuous temperature collected only during targeted storm events. The graphs from sites where temperature is recorded using ISCO area velocity sensors (Figures 3-5) display water temperature, water level, and hourly precipitation for reference. Temperature at the Plantation site is recorded using a HOBO TidbiT temperature logger that records data associated with the presence of water. Figure 6 displays Plantation temperature results and hourly precipitation for reference. Notable observations from these graphs are discussed below.

Beginning on approximately March 27, 2025, the Boise River water level rose enough to surcharge the Main and Americana monitoring stations. The May 17, 2025, data displayed in Figure 3 were collected at the Main Alternate site. All monitoring equipment was removed from Americana on March 27 and reinstalled on April 25 once the river water level decreased. This period is reflected by a data gap displayed in Figure 4.

Throughout WY 2025, low water levels were often observed at AS_7. According to the sensor manufacturer, accuracy of the area velocity sensor decreases at water levels below one inch. It is difficult to discern the accuracy of the low flow data and distinguish between air and water temperature under these conditions. Therefore, all recorded temperature data from AS_ 7 has been included in the graph shown in Figure 5.

Gaps in the Plantation temperature data, shown in Figure 6, indicate water was not present, the data was rejected due to sediment interference, or a gap in data collection. Unlike the other graphs of

continuous temperature results, water level data is not available at this monitoring site. From October 1 through November 6, sediment was observed on the temperature logger, which yielded results that water was present when the logger was observed to be dry. Therefore, temperature readings recorded during this period have been rejected. Sediment interference has since been mitigated by an increased frequency of inspection, cleaning, and scheduled maintenance. Another data gap occurred from January 7 – February 12, 2025, when the logger failed to collect readings and was replaced.

Plantation temperature data shown in Figure 6 display water presence when no rain data was recorded. An unknown dry weather flow was observed from late March through mid-April. Attempts were made to trace and characterize the flow; however, a source has yet to be confirmed due to the short flow duration. Additionally, visual observations have suggested that sources of dry weather flow in this system can often be attributed to sprinkler runoff. From mid-June through the end of September, daily intermittent water temperature readings were recorded. Due to the daily occurrences of these readings, temperature in Figure 6 appears to be continuous despite being intermittent throughout each day.

# Appendix A: Figures

Figure 1. Overview Map WY 2025

Figure 2. Discrete Temperature Results WY 2025

Figure 3. Continuous Temperature Results – Main WY 2025

Figure 4. Continuous Temperature Results – Americana WY 2025

Figure 5. Continuous Temperature Results – AS_7 WY 2025

Figure 6. Continuous Temperature Results – Plantation (4n2e30_012) WY 2025

Figure 1. Overview Map – Temperature Monitored Outfalls WY 2025

Created: 12/2/2025



Figure 2. Discrete Temperature Results WY 2025

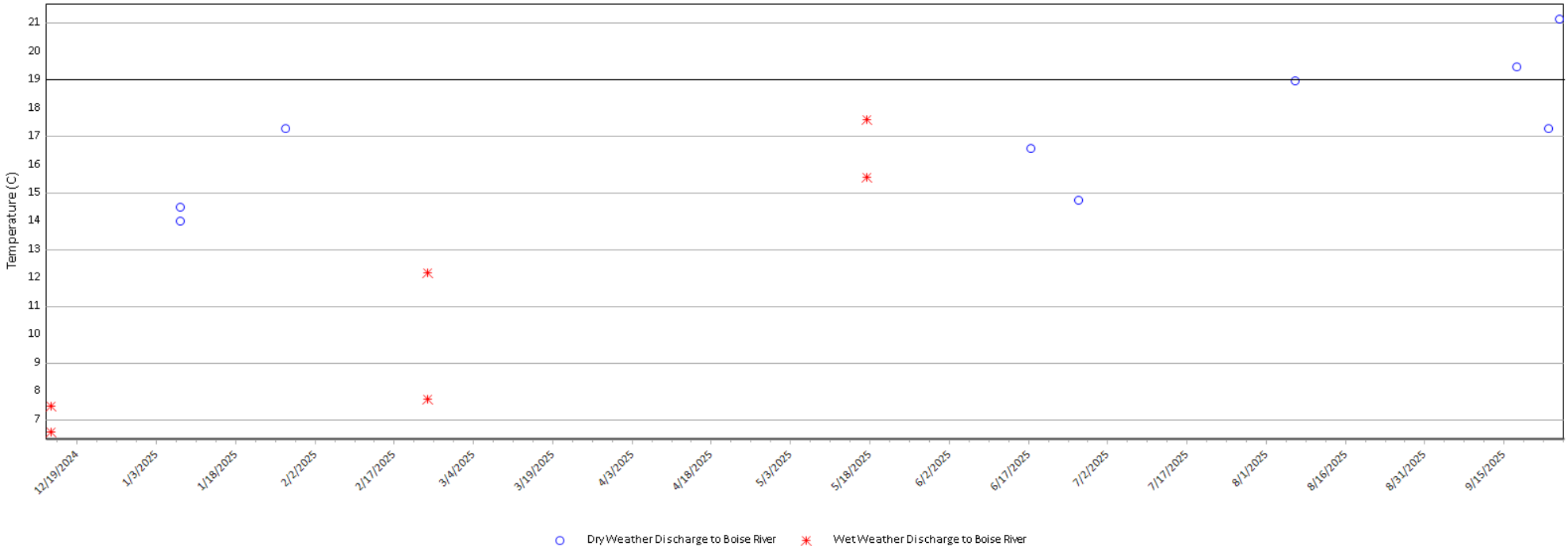


Figure 3. Continuous Temperature Results - Main WY 2025

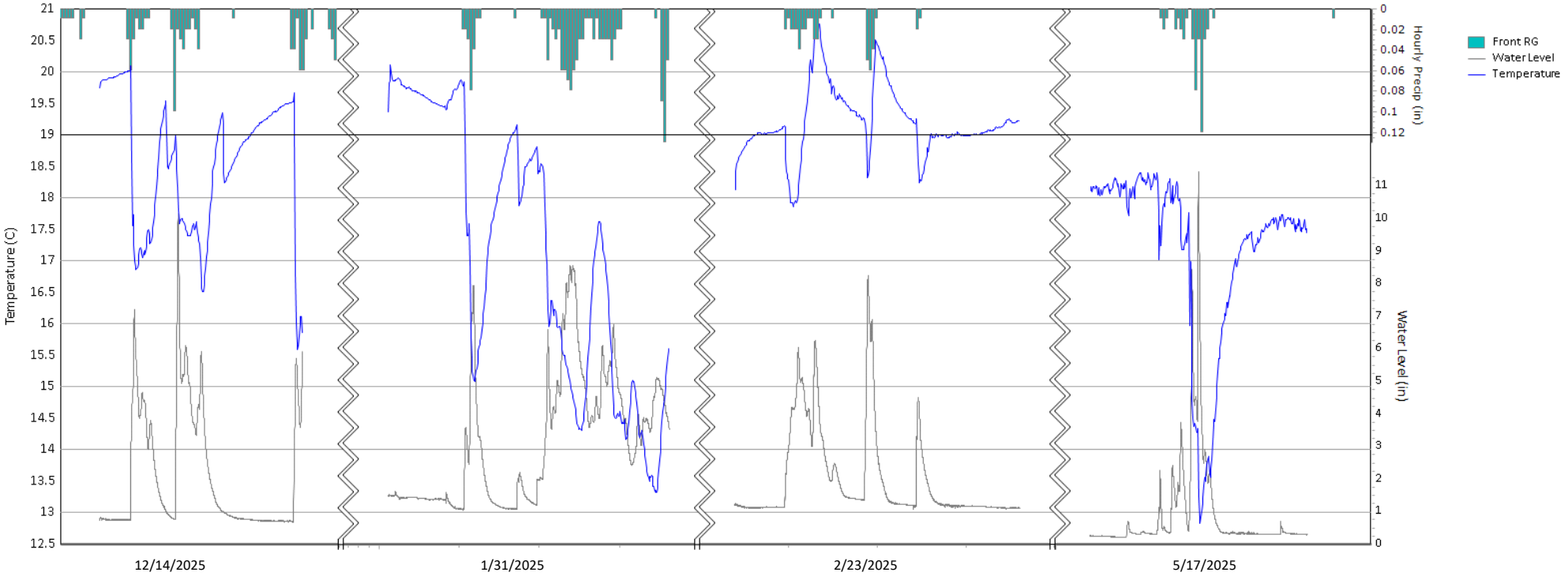


Figure 4. Continuous Temperature Results - Americana WY 2025

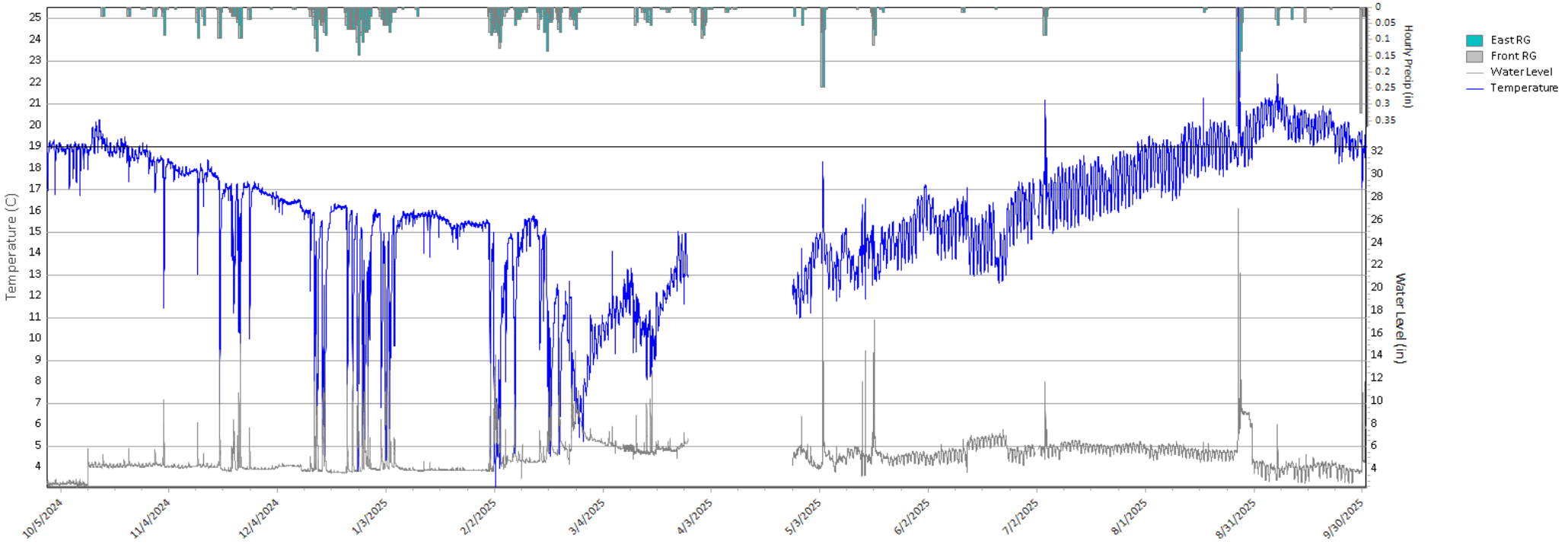


Figure 5. Continuous Temperature Results - AS_7 WY 2025

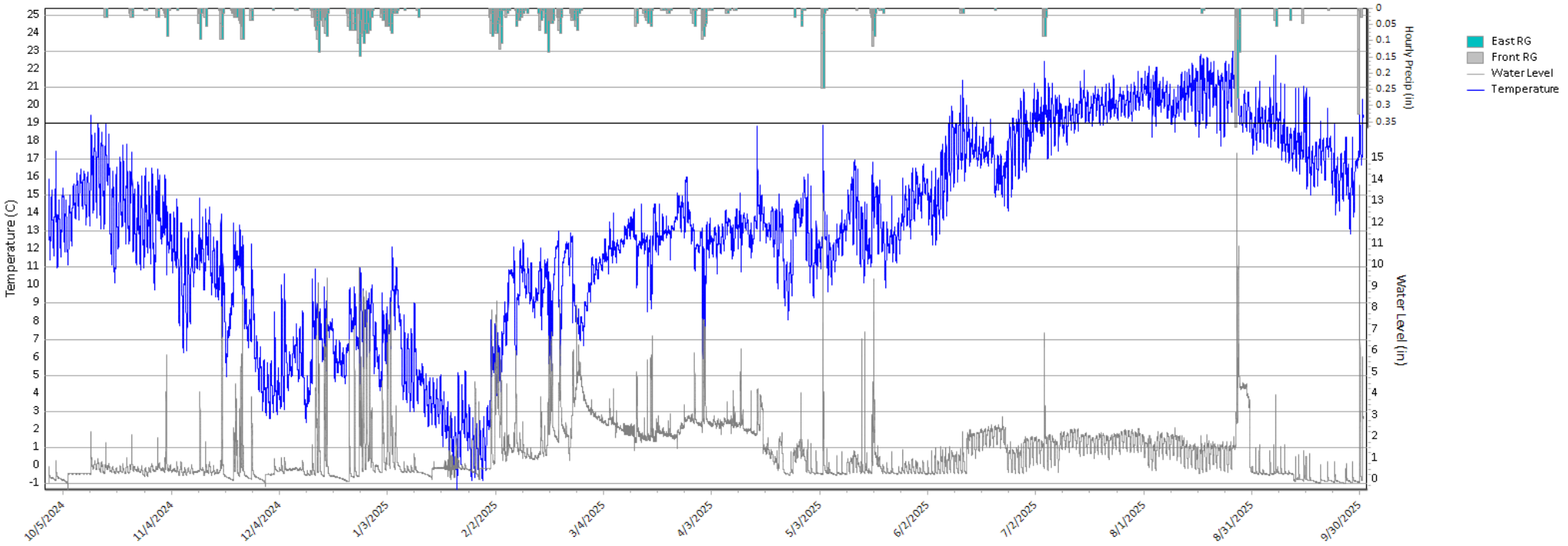


Figure 6. Continuous Temperature Results - Plantation (4n2e30_012) WY 2025

