

AGENDA

UPPER YAMPA WATER CONSERVANCY DISTRICT SPECIAL BOARD OF DIRECTORS MEETING MONDAY, JUNE 29, 2026 (1:00 PM)

ONLINE MEETING:

[HTTPS://US06WEB.ZOOM.US/J/81942099008?PWD=WLY91GMPKHHATPSYV3N8JPG85iCW5G.1](https://us06web.zoom.us/j/81942099008?pwd=WLY91GMPKHHATPSYV3N8JPG85iCW5G.1)

MEETING ID: 819 4209 9008 - PASSCODE: 212874

INSTRUCTIONS ON HOW TO JOIN A ZOOM MEETING FOLLOW THE AGENDA

A Board of Directors meeting packet is available for public review on our website at <https://www.upperyampawater.gov/board-meetings> by the Friday before the meeting. Amendments to the Agenda and new documents that are generated or submitted after the original posting of the meeting materials will be posted under "Additional Documents" on the website for the relevant meeting.

QUESTIONS ON AGENDA AND/OR BOARD MATERIALS: Members of the public or Board of Directors with questions on the agenda or meeting materials, including the consent agenda, are welcome to contact the General Manager at the District offices prior to the meeting. You may reach the General Manager at: arossi@upperyampawater.com or (970) 871-1035 Ext. 2.

MEETING PROCEDURE: Comments from the Public are welcome at two different times during the course of the meeting: 1) Comments no longer than three (3) minutes on items **not** scheduled on the Agenda will be heard under Public Input and Comment; and 2) Comments no longer than three (3) minutes on all scheduled public hearing items will be heard following the presentation. Please wait until you are recognized by the President. Appropriate written materials or presentations should be submitted to the District no less than 24 hours in advance to be included in the meeting. With the exception of subjects brought up during Public Input and Comment, on which no action will be taken or a decision made, the Board may take action on, and may make a decision regarding, ANY item referred to in this agenda, including, without limitation, any item referenced for "review", "update", "report", or "discussion" whether or not listed as an "Action Item."

- (1) **1:00 PM** Establishment of Quorum and Call to Order
- (2) **1:01 PM** Approval of Agenda for Meeting **Action item**
- (3) **1:02 PM** Public Input and Comment
The Board will make no decision nor take action, except to direct the General Manager. Those addressing the Board are requested to identify themselves by name, organization, if any, and address. Comments shall not exceed three (3) minutes.
- (4) **1:08 PM** Stagecoach Mountain Ranch Routt County Comment Letter
- (5) **1:50 PM** Executive Sessions:
 - a. Executive session under CRS § 24-6-402(4)(b) to discuss legal issues on Water Resumes, Water Cases, Contract Negotiations and _____ (insert description) . Mere presence or participation of an attorney at an executive session is not sufficient to satisfy the requirements of CRS § 24-6-402(4)(b). Executive sessions to discuss legal matters are not recorded.
 - b. Executive session under CRS § 24-6-402(4)(e)(I) for the purpose of determining positions relative to matters that may be subject to negotiations; developing strategy for negotiations; and instructing

negotiators with respect to _____(insert brief description). This session will be recorded, and a copy of the recording maintained for not less than 90 days.

- c. At the conclusion of an executive session and the resumption of the public meeting, the Chairman will announce that if any person who participated in an executive session believes that any substantial discussion of any matters not included in the motion to go into executive session, or that any improper action occurred during an executive session in violation of the Open Meetings Law, that such person state their concern for the record.

(6) **1:58 PM** Board Actions in Regard to Executive Session

(7) **2:00 PM** Adjournment.



INSTRUCTIONS FOR MEETING ATTENDEES

JOIN A MEETING

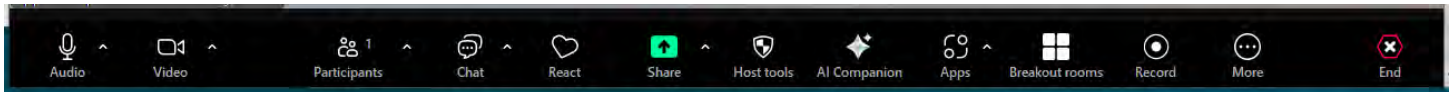
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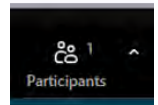
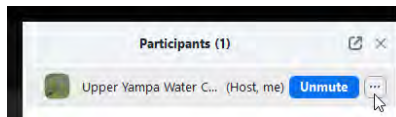
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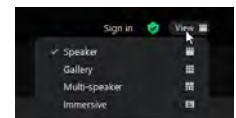
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ADDITIONAL RESOURCES (click to open)

[Getting Started](#) [Zoom Video Tutorials](#) [Using the Mobile App](#) [Zoom Help Center](#) [Zoom Training](#)

PUBLIC INPUT AND COMMENT

The Board will make no decision nor take action, except to direct the General Manager. Those addressing the Board are requested to identify themselves by name, organization, if any, and address. Comments shall not exceed three (3) minutes.

STAGECOACH MOUNTAIN RANCH ROUTT COUNTY COMMENT LETTER





BOARD COMMUNICATION FORM

From: Andy Rossi, General Manager

Date: 6/29/2026

Item: Stagecoach Mountain Ranch New Submittals to County

DIRECTION
 INFORMATION
 MOTION
 RESOLUTION

I. Summary Information:

New technical materials have been submitted by Stagecoach Mountain Ranch (SMR) to the Routt County Planning department since the last comment/referral period.

The relevant water resources documents that have been updated as part of the SMR proposal include Appendices BB, DDD, R, S, O, T, HH. Appendix S: *Nutrient Loading and Mitigation Report* is included as an attachment to this packet. All materials submitted to the county can be found on the Routt County SMR portal:

<https://cityview2.iharriscomputer.com/RouttCountyPortal/Planning/StatusReference?referenceNumber=PL20240088>

Attachments:

1. 10/16/2025 UYWCD Comment Letter to Routt County
2. SMR Nutrient Loading and Mitigation Report (Application Appendix S)



October 16, 2025

Kristy Winser
Routt County Planning Department
136 6th Street, Suite 200
Steamboat Springs, CO 80487

RE: Stagecoach Mountain Ranch Project

Dear Routt County Planning Department:

Thank you for the opportunity to comment on the proposed Stagecoach Mountain Ranch (SMR) Project. The proposed project is near Upper Yampa Water Conservancy District (UYWCD) property, which includes Stagecoach Reservoir and Stagecoach State Park. The UYWCD owns and operates Stagecoach Reservoir and has a long-term lease agreement with Colorado Parks and Wildlife to manage land use and recreation within Stagecoach State Park. As a neighboring property owner and raw water supply provider, UYWCD has concerns about the potential effects SMR may have on the surrounding area and the water resources of the Upper Yampa River Basin.

First, it is imperative for the protection of UYWCD property, infrastructure, and critical water supplies that all SMR development activities comply with applicable local, state, and federal regulatory agencies, including but not limited to Routt County Planning, United States Army Corps of Engineers (USACE), United States Fish and Wildlife Service (USFWS), Colorado Department of Public Health and Environment (CDPHE), Federal Energy Regulatory Commission (FERC), United States Forest Service (USFS), Bureau of Land Management (BLM), Environmental Protection Agency (EPA), and Colorado Division of Parks and Wildlife (CPW).

In addition to regulatory compliance, UYWCD's primary concerns about the proposed project are outlined below in the following four categories: Water Supply, Water Quality, Stagecoach State Park, and Long-term Performance Guarantee.

Water Supply

The total storage capacity of Stagecoach Reservoir is 36,439 acre-feet of water. Of that amount, 9,000 acre-feet is reserved in a municipal/industrial contract pool. Approximately 6,833 acre-feet remains available in that pool for new municipal or industrial water supply contracts.

Mailing Address
P.O. Box 775529
Steamboat Springs, CO 80477-5529

Location
2220 Curve Plaza, Suite 201
Steamboat Springs, CO 80487

Telephone
(970) 871-1035
Fax (888) 519-3464



Municipal Water

It is the understanding of UYWCD that potable water for the proposed project will be provided by Morrison Creek Water and Sanitation District (MCWSD) as outlined in an Inclusion Policy and Commitment to Serve Letters between SMR and MCWSD.

UYWCD provides raw water supplies from Stagecoach Reservoir and does not own or operate any water treatment facilities, making the UYWCD unable to provide treated water for human consumption. Routt County should verify the adequacy of the volume of potable water requested and the ability of MCWSD to reliably deliver the requested volumes with outside agencies and MCWSD directly.

Industrial Water

SMR representatives consulted with UYWCD staff on the scope and feasibility of using stored water from Stagecoach Reservoir for snowmaking at the proposed ski area. The scope and feasibility considered by SMR and the UYWCD include the availability of stored water for contract and the ability to deliver water to the desired location.

SMR reported an estimated need for approximately 400 acre-feet per year for snowmaking at a presentation to the UYWCD Board of Directors on May 21, 2025. The current volume of water available for contract in Stagecoach Reservoir is sufficient to meet the estimated snowmaking needs of SMR. To date, UYWCD has not received an application for a water storage contract for snowmaking or any other uses from SMR.

Any contractor's use or reuse of contracted UYWCD water must, in all instances, be in accordance with the terms of a water supply contract, the permits and decrees of UYWCD's water rights, UYWCD's adopted policies and procedures, as they may change from time to time, and in accordance with applicable law.

UYWCD delivers stored water for all current water supply contracts through the outlet works at Stagecoach Dam on the north end of the reservoir. Infrastructure to deliver water to the proposed ski area located south of the reservoir does not currently exist. New infrastructure would need to be constructed to deliver water from Stagecoach Reservoir to the desired location. At this time, UYWCD has no agreements with SMR regarding the construction of new water supply infrastructure.

Water Quality

The UYWCD's concerns about the potential water quality impacts associated with the proposed SMR project include wastewater treatment facility capacity, non-potable water systems use, and water quality regulatory compliance and permitting.



As a hydropower generating facility, UYWCD is required to operate Stagecoach Reservoir in accordance with a FERC License. Under the requirements of the UYWCD Stagecoach Dam and Reservoir FERC License, the UYWCD must monitor and manage the water quality of Stagecoach Reservoir, including the water quality of releases from Stagecoach Dam. While the FERC License does not explicitly state limits for nutrient loading within Stagecoach Reservoir, it does require the monitoring of nutrients in the reservoir and a commitment to limit nutrients released from the reservoir in compliance with all federal, state, and local regulations.

Water quality management, nutrient monitoring, and related requirements at Stagecoach Reservoir outlined in the FERC License are met in part through compliance with Colorado's 401 Certification Regulation (Regulation No. 82: 5 CCR 1002-82) and Section 401 of the federal Clean Water Act. The CDPHE administers the 401 Certification for Stagecoach Reservoir. As such, the UYWCD must ensure that its operations at the reservoir comply with CDPHE water quality standards.

Although point source and non-point source nutrient standards need to be clearly defined and no single cause or organization is to blame for nutrient loading, water quality in Stagecoach Reservoir and the Upper Yampa River Basin is a growing concern. As the owner and operator of Stagecoach Reservoir, it is critical to UYWCD operations and compliance with existing and future agency permits and agreements that water quality metrics are not negatively impacted.

Wastewater Treatment Facility Capacity

The proposed SMR project configuration contemplates all wastewater treatment and sanitary sewer needs will be undertaken by MCWSD. The MCWSD wastewater treatment facility (WWTF) discharges directly into Stagecoach Reservoir. MCWSD operates their WWTF in full compliance with all terms of the current discharge permit in a responsible and professional manner. However, the current discharge permit, issued in 2015, has expired. Prior to the expiration, MCWSD completed a timely application for permit renewal and the State of Colorado (State), who is currently backlogged on processing discharge permit renewals from across the state, granted a lawful administrative extension of the existing discharge permit while the application is processed. Since 2015, the State has also adopted new WWTF effluent standards that are not considered in the existing MCWSD discharge permit or in many other discharge permits around the state, adding to the backlog of application processing. While it is no fault of MCWSD, who responsibly operates their WWTF to the standards of the existing permit, the State will consider updated standards before a discharge permit renewal is issued. The timeline for the State's review process remains unknown.

The SMR project application materials include capacity and additional technical statements as to the adequacy of current MCWSD facilities and infrastructure to absorb the proposed additional wastewater and sanitary sewer needs from SMR. These application materials state that the existing MCWSD WWTF and sanitary sewer infrastructure is **not adequate** to provide the total needs for the proposed project. The requirements for potential



upgrades to a WWTF when treatment volumes exceed permitted capacity are triggered when 80% and 95% of the WWTF permitted capacity are reached. The 80% capacity threshold requires that engineering and financial planning for treatment expansion be initiated. The 95% capacity threshold requires that construction of the WWTF expansion must commence, or further expansion of treatment volume must cease. SMR estimates that the 80% and 95% capacity thresholds will be reached in 2034 and 2036, respectively.

MCWSD recently adopted a resolution for the possible inclusion (Inclusion Policy) into the MCWSD boundary for certain parcels of land associated with the SMR project. The terms of the Inclusion Policy are contingent on SMR receiving final development authorization from Routt County. In addition, MCWSD issued two Conditional Commitment to Serve Letters (Letters) for the proposed SMR project. These Letters include, among other details, terms for financial contributions to MCWSD in the event of specified levels of completed project development.

Given the importance of the permitting, financing and construction requirements associated with the WWTF and sanitary sewer infrastructure required to service the proposed SMR development, UYWCD requests that Routt County require the following as conditions for further review and approval of the SMR development applications:

1. Routt County should require that the current MCWSD WWTF discharge permit be renewed, including consideration of compliance with all current WWTF effluent water quality standards, before authorizing the recording of any SMR subdivision plat or the issuance of any building, grading or other construction permit for SMR improvements.
2. The WWTF capacity, engineering, and financial planning for treatment expansion as required by 5 CCR 1002-61 (80% capacity threshold) be initiated and completed before Routt County authorizes the recording of any SMR subdivision plat or the issuance of any building, grading or other construction permit for SMR improvements.
3. SMR and MCWSD be required to permit and construct all WWTF and sanitary sewer infrastructure improvements determined to be necessary to provide the total needs for the fully proposed project no later than the date a number of lots as determined by Routt County in consultation with MCWSD, SMR, and UYWCD have been separately platted within SMR.
4. Routt County should not accept any sewage vaults as part of the proposed SMR Project.

The SMR application materials include discussion of the potential use of treated wastewater effluent for snowmaking. This use is not legally permitted in Colorado. Any future



proposal and/or request by the SMR development team for the use of treated wastewater for snowmaking purposes should be considered by Routt County as a fundamental and significant change in the wastewater management of the SMR project and Routt County should require a new application by SMR to the Routt County Planning Department for full review before such use is contemplated.

Water Quality Regulatory Compliance and Permitting

Stagecoach Reservoir is already experiencing concerning levels of nutrient loading that may lead to impaired water body designations from the CDPHE. The CDPHE is proposing to adopt new nutrient standards for lakes and reservoirs and the implications of these standards and regulatory requirements at Stagecoach moving forward are unknown. Any additional nutrient input from any source would further complicate water quality management for the UYWCD and could negatively impact public use of aquatic resources at Stagecoach State Park

Both current and future project owners must take responsibility for water quality degradation, whether from point or non-point sources, that results from initial construction to full buildout of the proposed development. This includes meeting all applicable water quality standards for Stagecoach Reservoir as defined by current and future regulatory agencies. The proposed SMR project design must account for water quality impacts at every phase of the project, including during construction.

Moreover, the full extent of impacts on areas adjacent to or near the project site may not be known for several years after construction is completed. To address this uncertainty, Routt County should consider requiring the establishment of a long-term development impact fund. This fund would be used to mitigate ongoing or unforeseen effects from the project and could be structured as a revenue-based financial mechanism, rather than a one-time lump-sum payment.

UYWCD has significant water quality concerns regarding both the impacts of construction and the long-term effects of the proposed development, including any additional nutrient loading. Water quality could be impacted by a number of inputs from erosion during construction to on-going weed management, and storm water runoff. The current SMR application materials either lack sufficient detail or are entirely deficient in addressing mitigation design and management for these issues.

Monitoring of the potential water quality impacts from SMR construction and operations should be incorporated into the existing United States Geological Survey (USGS) water quality monitoring program currently managed by Routt County. The locations of new monitoring sites for the purpose of tracking potential effects of the SMR development on area water quality should be determined by Routt County in consultation with the USGS staff to expand agency oversight and avoid redundancy with existing program efforts. UYWCD is an active participant and financial contributor to the Routt County water quality monitoring program in addition to



water quality monitoring and modeling efforts specific to UYWCD facilities and contributing watersheds. SMR's long-term water quality monitoring plan should include participation in and financial contribution to the existing program.

Stagecoach State Park

In addition to addressing water quality concerns at Stagecoach Reservoir as detailed above, the UYWCD wishes to clarify public access and use authorizations related to Stagecoach Reservoir and Stagecoach State Park.

All public use of Stagecoach Reservoir, including boating and watercraft access, is limited to existing entry points, boat ramps, and designated access locations as managed by Colorado Parks and Wildlife (CPW) under current State Park operations. Any other access to UYWCD property will remain unchanged unless explicitly authorized by UYWCD. Currently, there are no approved authorizations or agreements for the construction of an additional marina on Stagecoach Reservoir.

Furthermore, any modifications to existing infrastructure, or the construction of any new infrastructure on UYWCD property, including effluent pipelines from the MCWSD WWTF, are subject to final approval by UYWCD. Such activities must comply with UYWCD's property management requirements, applicable permits and water rights decrees, adopted policies and procedures (as amended from time to time), and all relevant laws and authorizations governing the operation of Stagecoach Reservoir and Stagecoach State Park.

Long-term Performance Guarantee

Routt County should require a legally binding agreement with SMR that, if notwithstanding the best efforts of all other interested parties with jurisdiction over wastewater and water quality matters at Stagecoach Reservoir, the reservoir is experiencing a degradation in water quality or any injury to existing water rights occurs, then Routt County and the UYWCD have an enforceable right to compel the developer or some other financially capable party acceptable to Routt County and the UYWCD to develop and implement a mitigation plan to fix the problem. This guarantee should include a dispute resolution process and remedies available to Routt County and the UYWCD to compel performance and such other provisions as are typically included in agreements of this type. This guarantee would only be enforceable if other compliance mechanisms fail.

These comments are preliminary based on the application and supporting material submitted by the applicant to date. UYWCD reserves the right to supplement or revise these comments based on new or amended materials submitted by applicant, analysis and reports prepared by Routt County planning and other departments, and comments from other referral agencies and the public. In particular, the suggested time frames for completion of the WWTF



discharge permit renewal and the WWTF expansion planning and construction may be able to be adjusted when the number of lots in each plat and sequence of platting is determined with more specificity.

Again, we appreciate the opportunity to comment on the proposed Stagecoach Mountain Ranch Project and remain interested in engaging with Routt County on this matter throughout the hearing process. Please feel free to contact us with any questions you may have about the contents of this letter and/or UYWCD operations in the Stagecoach area.

Sincerely,
On Behalf of the UYWCD Board of Directors

A handwritten signature in blue ink, appearing to read "James Haskins", written over a light blue circular stamp.

James Haskins
President, UYWCD Board of Directors

A handwritten signature in blue ink, appearing to read "Andy Rossi", written over a light blue circular stamp.

Andy Rossi
General Manager, UYWCD

arossi@upperyampawater.com



STAGECOACH MOUNTAIN RANCH

NUTRIENT LOADING AND MITIGATION REPORT

FEBRUARY 23, 2026

Prepared by:

Kimley»»Horn



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INTRODUCTION

This Nutrient Loading Report has been prepared for Steamboat Sponsor, LLC for the evaluation of existing conditions, as well as both unmitigated and mitigated conditions upon implementation of the proposed Stagecoach Mountain Ranch (SMR) with respect to nutrient loading (i.e., Phosphorus and Nitrogen) to Stagecoach Reservoir. This report discusses the sources of nutrients, their potential for leaching and runoff to ground and surface waters, and recommendations for the stormwater and wastewater management system design of the proposed development.

In general, phosphorus and nitrogen cycles are affected primarily by urban and agricultural development, resulting in non-point source pollution. Sources can include runoff from agriculture, urban settings, construction sites, septic tank leachate and logging, as well as the solution of naturally occurring Phosphorus in local soils and rocks. The nutrients wash into bodies of water and its tributaries through stormwater, primarily as snowmelt, and also leach through the soil and into groundwater, which flows into the reservoir over time.¹ Excess of these nutrients in ground and surface waters cause eutrophication, which can result in a variety of water quality problems when algal production accelerates, including harmful algal blooms (HABs).

The 228-square-mile watershed upstream of Stagecoach Reservoir contributes such non-point source pollution and represents a substantial portion of all loading to the Reservoir. A smaller portion of all nutrient loading to the Reservoir originates from point source discharges in the watershed, including several that discharge to the Yampa River or its tributaries, and two that discharge directly to the Reservoir: Colorado Parks & Wildlife's (CPW) domestic Wastewater Treatment Facility (WWTF) (Permit No. COX631074) and Morrison Creek Metropolitan Water & Sanitation District's (MCMWSD) WWTF (Permit No. CO0022969).

EXISTING CONDITIONS

STAGECOACH RESERVOIR

Pursuant to the Upper Yampa Conservancy District,² Stagecoach Dam & Reservoir was conceived in 1983 by the Board of Upper Yampa Water Conservancy District (UYWCD) and designed to provide a reliable source of water for the growing population and economy of Northwest Colorado. The reservoir provides stored water for agricultural irrigation, municipal and industrial contracts, and environmental releases that help bolster flows in the river during hot and dry summer months. Stagecoach Reservoir currently has a total capacity of approximately 36,439 acre-feet.

The Stagecoach Reservoir Watershed is 228 square miles, spanning from headwaters tributaries downstream to the Stagecoach Reservoir outlet, SMR comprises 1.5% of the watershed.

The sub-basin of the Stagecoach Reservoir Watershed that directly flows into the reservoir is approximately 14,222 AC and bounded by the upstream and downstream edges of Stagecoach Reservoir

¹ <https://www.epa.gov/nutrientpollution/sources-and-solutions-agriculture#:~:text=This%20excess%20nitrogen%20and%20phosphorus,cause%20eutrophication%20of%20water%20bodies.>

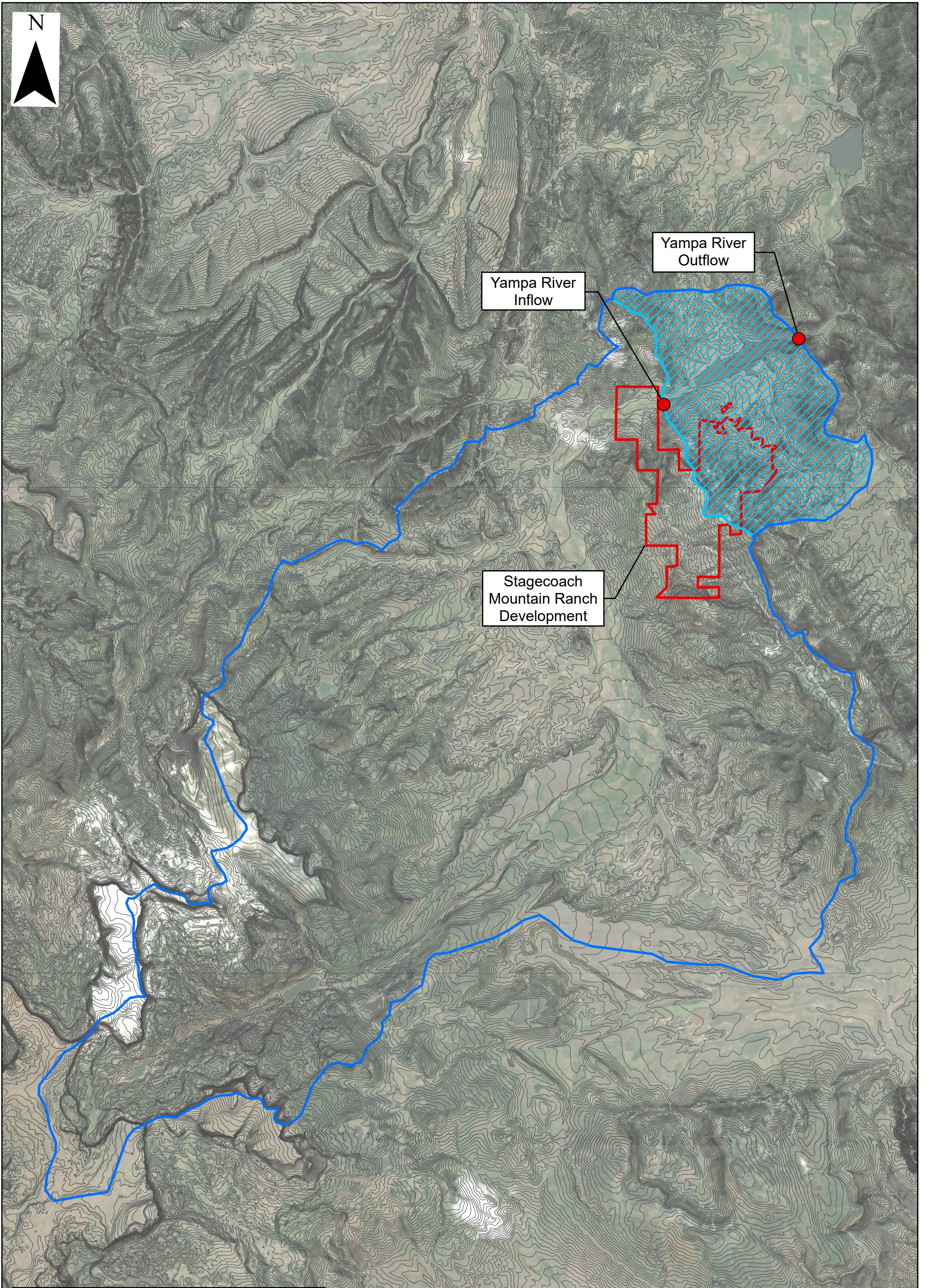
² <https://www.upperyampawater.gov/stagecoach-reservoir>

and includes all land on the north face of the mountain that drain directly into the reservoir. SMR comprises approximately 15% of this sub-basin.

Two sets of sampling data were analyzed to calculate the nutrient loads for Stagecoach Reservoir, those compiled by United States Geological Survey (USGS) and LRE Water (LRE), which both have sampling stations located up and downstream of the Stagecoach Reservoir. In 2024, LRE performed a study on the nutrient loading around Stagecoach Reservoir on behalf of UYWCD with sampling points on the up and downstream edges of the reservoir, herein referred to as the UYWCD Report/Data. The UYWCD data represents the Stagecoach Reservoir sub-basin, approximately 14,222 AC. The USGS data encompasses a larger drainage area, approximately 194,000 AC, from the upstream edge of the reservoir south along the Yampa River near Oak Creek. This area also encompasses the sub-basin represented by UYWCD data.

As such, the UYWCD sampling points represent a smaller, more discrete drainage area with minimal in-stream modification between the sampling location and the reservoir. UYWCD data more accurately reflects the land use, hydrology, and source conditions that directly influence reservoir loading. In contrast, the USGS sampling points integrate runoff from much larger upstream drainage areas and reflect the influence of channel storage, diversions, land uses and other in-stream processes that can modify nutrient concentrations prior to measurement at the sampling location. Although USGS data are useful for characterizing watershed-scale conditions and long-term trends, the UYWCD data are more spatially representative of direct reservoir inflows and provide a more defensible basis for estimating loads associated with land development in the sub-basin, as well as developing area-based load ratios.

Phosphorus and nitrogen loading associated with the SMR project has been estimated using two different methods, one of which is included in Appendix B. The more relevant method is utilized below and based on the direct watershed area of Stagecoach Reservoir and the nutrient loading values produced by UYWCD. It is noted that both analyses yielded similar results for nutrient loading per acre, but this method is the most applicable for estimating the nutrient loads for Stagecoach Reservoir. Excerpts from the UYWCD report outlining the data utilized in this analysis are included in Appendix A. Figure 1 below shows the described watershed and sub-basins.

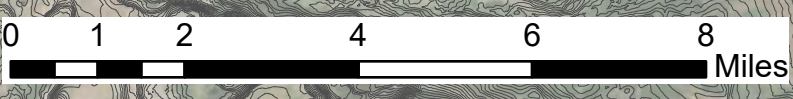


Yampa River Inflow

Yampa River Outflow

Stagecoach Mountain Ranch Development

- Site Boundary
- Watershed to Reservoir
- Direct Reservoir Drainage Area (14,222 Acres)
- Monitoring Location
- 10' Contour



PWGC
 ENVIRONMENTAL ENGINEERING & CONSULTING
 P.W. GROSSER CONSULTING ENGINEER
 AND HYDROGEOLOGIST, D.P.C.
 630 Johnson Avenue, Suite 7
 Bohemia, NY • 516-662-2618
 Phone: 631.589.6953 • Fax: 631.589.8705
 Email: pwgc.info@pwgrosser.com

Stagecoach Mountain Ranch - Watershed

Site Address:	Project: DLC2301	Drawn by: KM
Stagecoach, Colorado	Date: 2/18/2026	Approved by: HS
Client:	Coord. Sys: NAD83 StatePlane CO - North	Figure No:
Steamboat Sponsor, LLC. 14605 N 73rd Street Scottsdale, AZ 85260		

EXISTING NUTRIENT LOADS ACROSS STAGECOACH RESERVOIR

LRE prepared the Upper Yampa River (Bear River Sub-Basin) Watershed and Stagecoach Reservoir Water Quality Monitoring Report (UYWCD Report) – 2024 for UYWCD to better understand the nutrient sources in the Bear River sub-basin of the Upper Yampa watershed and the conditions contributing to potentially harmful cyanobacteria blooms in Stagecoach Reservoir. The sampling points from the UYWCD Report utilized in this analysis are on the upstream and downstream edges of the reservoir, outlining the Stagecoach Reservoir sub-basin and representing the impact on nutrient loading across the reservoir.

Pursuant to the UYWCD Report, nutrient loading to Stagecoach Reservoir was estimated using long-term median concentrations of phosphorus and nitrogen from surface water samples of the Yampa River, combined with annual discharge data at upstream tributaries and mainstem above Stagecoach Reservoir gauges during 2024.

Within the UYWCD Report, nutrient loading from the Morrison Creek WWTF was calculated using 2024 Discharge Monitoring Report (DMR) data (see Table 1 below). Later sections in this report include the most recent DMR data from 2025, the recent data was utilized in place of what is listed below. The UYWCD report provides data on the stormwater loading. These estimates provide an initial assessment of the relative contributions of the Yampa River, the reservoir's primary inflow and source of reservoir loading, and the MCMWSD WWTF, the primary point source discharging directly to the Reservoir.

Table 1 – Estimated Nutrient Input to Stagecoach Reservoir from the Yampa River and MCMWSD (Excerpted from the WQM Report)

Location	Annual Flow (AF)	Annual Loading (tons)	
		Total Phosphorus	Nitrogen
Yampa River Inflow	56,644*	3.8	29.5 (Total)
MCMWSD*	70	0.42	0.5 (NH3)
Outflow	-47,808*	-5.3	-40.9 (Total)

*2024 Values from the UYWCD Report. 2025 Data was utilized for this analysis.

The Stagecoach Reservoir sub-basin was produced using two UYWCD monitoring points (located on the inlet and outlet of Stagecoach Reservoir) and surrounding topography. This sub-basin, which is approximately 14,222 acres, can be utilized to estimate the existing phosphorus and nitrogen loads across Stagecoach Reservoir. It is important to note that this analysis uses instream concentrations, which does account for groundwater inflow, sedimentation or resuspension of sediments in the reservoir and atmospheric deposition of nutrients to the reservoir. Data inherently includes groundwater sub-flow on account that the reservoir inflow and outflow sites measure loading based on surface water samples.

SMR analyzed the difference between the two sampling points to understand the impact of the sub-basin on the Reservoir. Within the sub-basin, both stormwater runoff and effluent discharge from MCMWSD's WWTF contribute to the nutrient loading conditions in the Reservoir.

Phosphorus

The annual total Phosphorus load at the *Yampa River Inflow* site is approximately 3.8 tons per year (20.8 lbs./day) and the annual total Phosphorus load at the *Yampa River Outflow* site, which is located downstream of SMR, is approximately 5.3 tons per year (29.0 lbs./day) (see Table 1 above and Figure X below). As such, the increase in phosphorus across Stagecoach Reservoir is currently approximately 8.2 lbs./day (i.e., 29 minus 20.8).

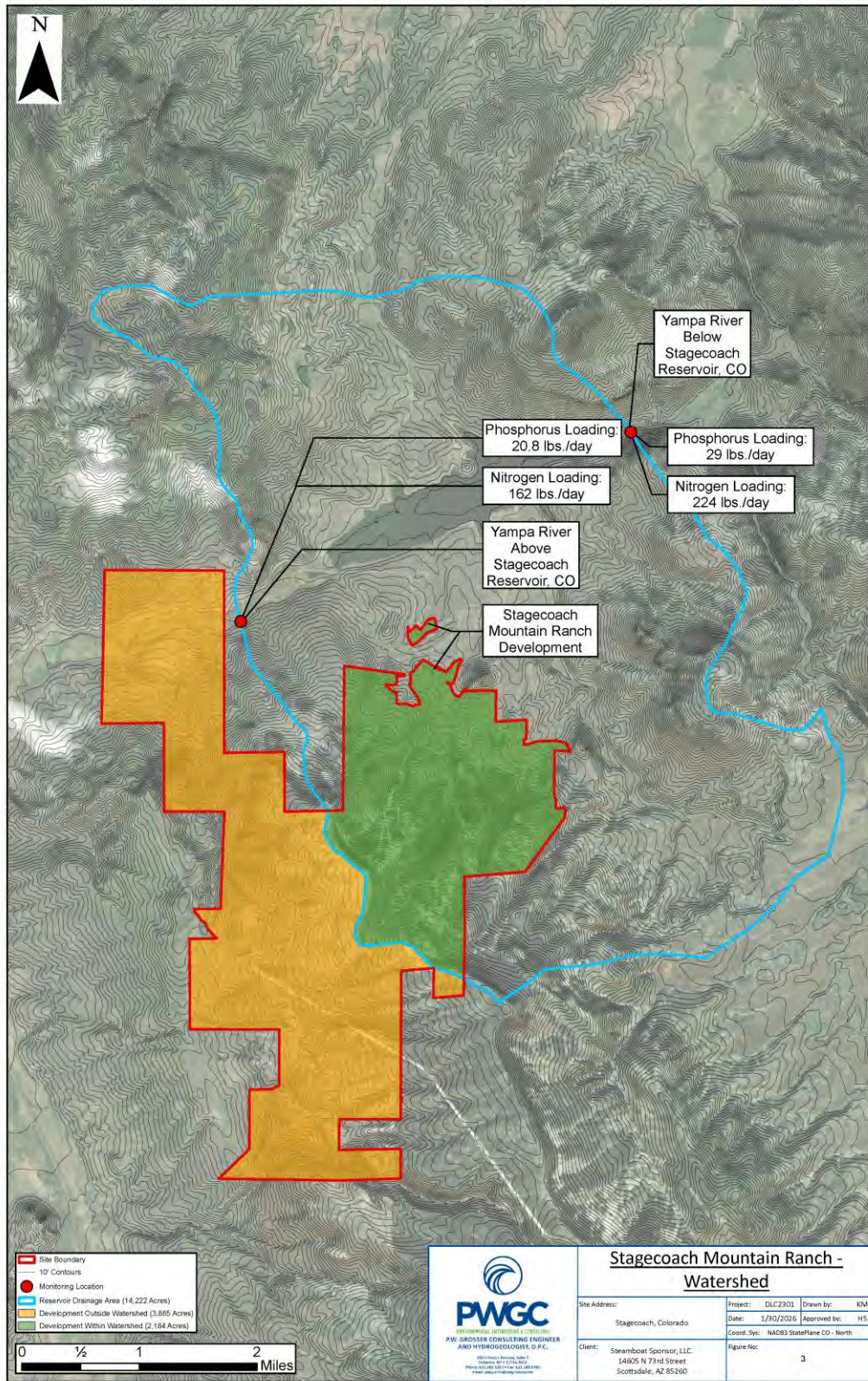


Figure 1 – Nutrient Loading in LRE Water Sampling Points Contributing Watershed

Nitrogen

In the same manner as above with Phosphorus loading, the existing Nitrogen load across Stagecoach Reservoir can be determined utilizing the estimated annual yields at the same LRE sampling points in the Upper Yampa River Basin. As the same sampling points were used, the same watershed area was produced from the surrounding topography.

Specifically, the annual total Nitrogen loads at the monitoring points upstream and downstream of the Stagecoach Reservoir are 29.5 tons per year (162 lbs./day) and 40.9 tons per year (224 lbs./day), respectively. As such, the increase in Nitrogen across Stagecoach Reservoir is currently approximately 62 lbs./day (i.e., 224 minus 162).

NUTRIENT LOADS ASSOCIATED WITH WASTEWATER IN STAGECOACH RESERVOIR

EXISTING NUTRIENT LOADS DIRECTLY FROM MCMWSD WWTF

Pursuant to the SMR Water and Sanitary Sewer Master Plan prepared by Kimley-Horn included in the preliminary plan submittal to Routt County, the Morrison Creek WWTF currently treats approximately 65,493 gallons per day (gpd) of wastewater. 2025 laboratory data indicates that Morrison Creek WWTF treated effluent contributes an average of 4.6 mg/L (2.5 lbs./day) of phosphorus and 19 mg/L (11 lbs./day) of nitrogen to Stagecoach Reservoir (Appendix A). These values represent a 12-month rolling average and therefore capture any seasonal inflow and infiltration (I/I).

Nutrient	Total - Sub-basin Contribution	WWTF Contribution	WWTF % of Sub-basin Contribution
Phosphorus	8.2 lbs./day	2.5 lbs./day	30%
Nitrogen	62 lbs./day	11 lbs./day	18%

*The table above focuses on only the WWTF contribution to the total sub-basin nutrient load

MCMWSD PROJECTED LOADS FROM CURRENT PERMITTED CAPACITY

The existing Morrison Creek WWTF has a permitted treatment capacity of 350,000 gpd and is capable of operating at this capacity independent of the implementation of SMR. If the WWTF were to utilize its full permitted capacity, nutrient loading from the WWTF to Stagecoach Reservoir is estimated to increase to approximately 13.4 lbs./day of phosphorus and 59 lbs./day of nitrogen. At this maximum flow rate, the WWTF would account for approximately 70 percent of the total phosphorus loading and 54 percent of the total nitrogen loading to the reservoir, when analyzing the Stagecoach Reservoir sub-basin. Again, these values represent the estimated future loading associated with MCMWSD's fully permitted and legally authorized discharge.

NUTRIENT LOADS ASSOCIATED WITH STORMWATER IN STAGECOACH RESERVOIR

Phosphorus and nitrogen loading from stormwater associated with the SMR project has been estimated using three different methods, two of which are included in Appendix C. The most accurate method is utilized below and based on the watershed area of Stagecoach Reservoir and the nutrient loading values outlined in UYWCD's Report. It is noted that all three analyses yielded similar results, but this method is the most applicable for estimating the nutrient loads due to stormwater directly entering the Stagecoach Reservoir.

Phosphorus

The UYWCD Report indicates that in 2024 the annual phosphorus inflow was 3.8 tons (20.8 lbs./day) and the outflow was 5.3 tons (29.0 lbs./day). Based on the UYWCD Report's estimated nutrient from the MCMWSD (wastewater) of 0.42 tons/year (2.3 lbs./day), the difference in phosphorus loads across the reservoir would be 8.2 lbs./day (i.e., 29.0 minus 20.8), which represents the total amount of phosphorus contributing to Stagecoach Reservoir (from both wastewater and stormwater). The 2.5 lbs./day of phosphorus from MCMWSD's WWTF represents approximately 30% of this. Subtracting out the 2.5 lbs./day due to wastewater, the phosphorus contribution due to stormwater within the sub-basin is calculated to be 5.7 lbs./day. It is noted that because groundwater monitoring and other analysis is unavailable, stormwater loading calculations in this section inherently incorporate loading associated with groundwater flow (or sub-flow) into the reservoir as well as sedimentation or resuspension of sediments, and therefore stormwater calculations in this section overestimate the amount of loading associated with stormwater (for both existing conditions and stormwater associated with SMR). Because this loading associated with groundwater flow and resuspension of sediment is attributed to stormwater loading, this methodology results in a conservative estimate of stormwater loading associated with the SMR project.

Phosphorus Loading from Stormwater Associated with SMR Project Located within the Stagecoach Reservoir Sub-basin

The SMR project located within Stagecoach Reservoir's direct watershed (depicted above) is 2,184 acres. Utilizing this value, the average Phosphorus loading over the contributing watershed to Stagecoach Reservoir can be calculated.

As such, based on this method, stormwater associated with the SMR project in the Stagecoach Reservoir's direct watershed would contribute approximately 0.9 lbs./day of Phosphorus without the use of Best Management Practices (BMPs).

Phosphorus Loading from Stormwater Associated with SMR Project Located outside the Stagecoach Reservoir Sub-basin

Assuming the same ratio as above, the Phosphorus loading from stormwater associated with the 3,885 acres of SMR development located outside of the Stagecoach Reservoir "direct watershed area," is calculated below. This represents the amount of Phosphorus that would contribute to surface waterbodies upstream of the *Yampa River Inflow* sampling point. When nutrients are contributing upstream, their source is located in the higher-elevation headwaters of a river or watershed. These nutrients are then transported downstream by the flow of water, affecting the ecosystems and water quality below. Factors such as stream length and land cover affect the levels of nutrient loads as they travel downstream.

The total preliminary Phosphorus load from stormwater for the SMR development would be approximately 2.5 lbs./day, with 0.9 lbs./day contributing directly to Stagecoach Reservoir. This also represents the existing conditions without the implementation of BMPs.

Nitrogen

Utilizing the LRE sampling points, the difference in Nitrogen loads across the reservoir would be 62 lbs./day, which represents the total amount of Nitrogen directly released to Stagecoach Reservoir (from both wastewater and stormwater). The estimated Nitrogen loading from MCMWSD's WWTF to Stagecoach Reservoir is 11 lbs./day according to 2025 averaged lab data. As such, excluding the 11

lbs./day loading associated with MCMWSD's WWTF, the Nitrogen loading from stormwater is 51 lbs./day (see Figure 1 above).

As the Nitrogen contribution due to stormwater is 51 lbs./day and the contributing watershed area between the two (2) sampling points is approximately 14,222± acres, the average Nitrogen loading over the contributing watershed to Stagecoach Reservoir can be calculated. The development areas used for the Phosphorus calculations are used below as well.

Nitrogen Loading from Stormwater Associated with SMR Development Located outside the Stagecoach Reservoir Direct Watershed

As such, the proposed SMR would contribute approximately 7.8 lbs./day of Nitrogen due to stormwater directly to the reservoir. This is also the existing conditions without the use of BMPs.

Nitrogen Loading from Stormwater Associated with SMR Development Located outside the Stagecoach Reservoir Direct Watershed

Assuming the same ratio as above, the Nitrogen loading from stormwater associated with the 3,885 acres of SMR development located outside of the Stagecoach Reservoir "direct watershed area" is 13.9 lbs./day. This represents the amount of Nitrogen that would contribute to surface waterbodies upstream of the *Yampa River Above Stagecoach Reservoir* sampling point. These nutrients are then transported downstream by the flow of water. Factors such as stream length and land cover can affect the levels of nutrient loads as they travel downstream. This represents the existing condition of nitrogen that enters the reservoir at the upstream entrance.

Based on the above calculations, the total preliminary Nitrogen load from stormwater for the SMR development would be approximately 21.7 lbs./day, with 7.8 lbs./day contributing directly to Stagecoach Reservoir and other downstream surface waterbodies. This is without the implementation of BMPs and also represents existing conditions.

PROJECTED SMR NUTRIENT LOADS & MITIGATION STRATEGIES

PROJECTED NUTRIENT LOADS ASSOCIATED WITH MCMWSD'S FUTURE WASTEWATER

SMR IMPACT ASSOCIATED WITH WASTEWATER WITHOUT MITIGATION

The area of the old ski base lodge on the subject property is currently serviced by the existing sanitary collection system, although only approximately 1,460 acres of the northern portion of the SMR development is within the MCMWSD boundaries, a large portion of the remainder of the SMR project (6040 acres) will also be included in the MCMWSD boundaries upon inclusion. The existing average sanitary flow rate for the Morrison Creek WWTF is approximately 65,493 gpd, which discharges a conservative 2.5 lbs./day of Phosphorus and 11 lbs./day of Nitrogen to the Stagecoach Reservoir (based on sampling results provided by MCMWSD). Pursuant to the SMR Water and Sanitary Sewer Demand Analysis (2026), the projected total daily sanitary sewer flow at full buildout for the proposed SMR would be 251,201± gpd. This value is based on the conservative assumption that the SMR development will have an occupancy rate of 50%³. Using a ratio of the sanitary flow of the Morrison Creek WWTF to the projected sanitary flow of the SMR development, the nutrient loads associated with MCMWSD's wastewater can be calculated as follows.

Phosphorus

The SMR development would yield 9.6 lbs./day of Phosphorus loading associated with MCMWSD wastewater at full build out. As indicated previously, the existing permitted capacity for the Morrison Creek WWTF is 350,000 gpd. If the WWTF expanded to its full capacity, an additional 13.4 lbs./day of Phosphorus would be discharged to Stagecoach Reservoir.

Nitrogen

The SMR development would yield 42 lbs./day of Nitrogen loading associated with MCMWSD wastewater at full build out. If the WWTF expanded to its full existing permitted capacity (i.e., 350,000 gpd), an additional 59 lbs./day of Nitrogen would be discharged to Stagecoach Reservoir.

In the context of the larger Stagecoach Reservoir watershed, phosphorus and nitrogen loads associated with the SMR project are estimated to represent approximately 16% of total phosphorus loading and 10% of total nitrogen loading before accounting for standard stormwater BMPs and additional mitigations measures.

³ Note that 50% occupancy rate is conservative. An anticipated occupancy rate would be approximately 35%.

IMMEDIATE WWRF MITIGATION – OPERATIONAL IMPROVEMENTS

MCMWSD recently upgraded the WWTF to SBR technology with construction completed in 2024. The data utilized in the existing condition analysis is an average of all monthly testing data for all of 2025, showing the effectiveness of the new plant operations. As discussed in the existing conditions section of this report, the plant currently (with SBR technology) produces average phosphorus and nitrogen concentrations of 4.6 mg/L and 19 mg/L respectively.

In discussions with MCMWSD, it is understood that effluent quality can likely be enhanced with operational improvements achieved through SMR's financial support. The following outlines the anticipated steps to investigate the potential operational improvements:

- Operational modeling to test the various influent conditions and potential process adjustments to lower the effluent nutrient loading. Possible improvements could include, but aren't limited to the following:
 - Chemical feed addition, specifically metal salts to reduce phosphorus
 - Denitrification process improvements
 - Controls improvement and automation
 - Process optimization
 - Equalization Basin at the headworks of the plant
- Full characterization of the influent and effluent in various operational conditions throughout the year.
 - Average Flow, High I/I days, and days where sewer vault trucks deposit waste will be evaluated throughout the year ensuring seasonal and influent conditions are captured in the evaluation

This evaluation is currently in discussion with MCMWSD to understand the best pathway for implementation, testing, and modeling. It is anticipated that the evaluation will take place over the course of the next year in partnership with MCMWSD to ensure that the potential improvements are viable and realistic options for MCMWSD to implement. As part of the investigation, a cost analysis will be performed to aid MCMWSD in the selection of an operational improvement alternative.

According to the EPA's SBR factsheet, SBR is capable of producing concentrations of 5-8 mg/L of nitrogen and 1-2 mg/L of phosphorus on average. Understanding that an investigation is still needed to confirm, SMR took a conservative estimate on the potential reduction from operational improvements and included the decrease in the overall mitigation strategy.

It is anticipated that with operational improvements the existing WWTF could produce concentrations of 2 mg/L of phosphorous 8 mg/L of nitrogen by 2028 given the proposed investigation timeline.

Phosphorus & Nitrogen Loading with Operational Improvements

Nutrient	Existing Load	2028 Expected Discharge from MCMWSD*	Expected Load w/o Improvements	Expected Load w/ Improvements
Phosphorus	2.5 lbs./day	76,138 GPD	2.9 lbs./day	1.3 lbs./day
Nitrogen	11 lbs./day		12.3 lbs./day	5.1 lbs./day

*Discharge includes projected SMR wastewater flows based on the phasing plan

WWTF TECHNOLOGY IMPROVEMENTS AND EXPANSION

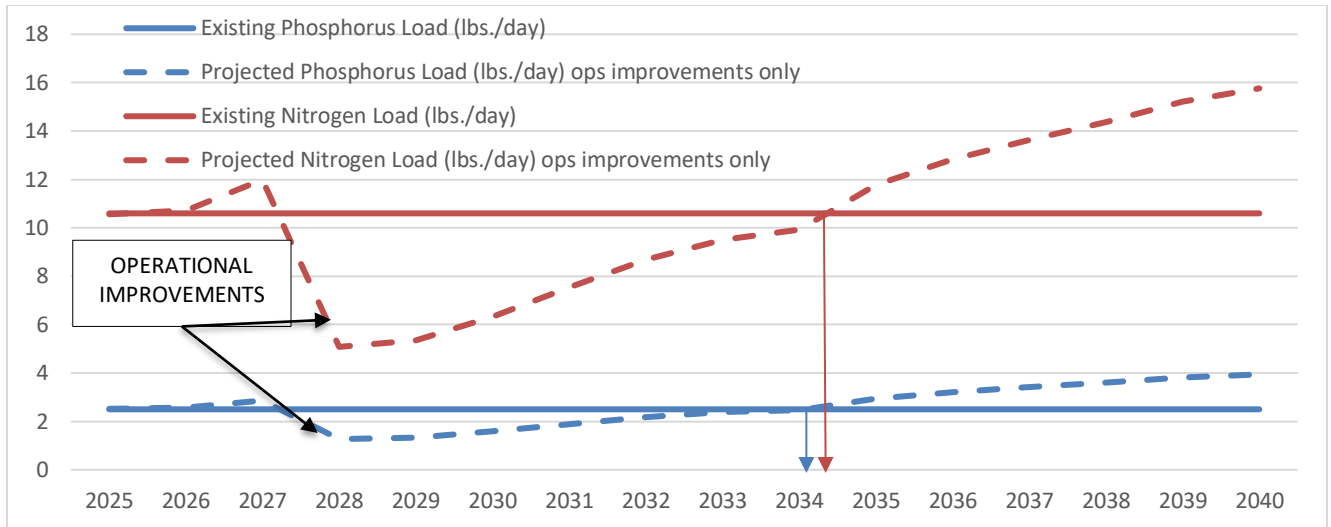
Due to SMR's anticipated demand and the agreement of service with MCMWSD, the WWTF will need to be expanded at some point in the future to treat the anticipated SMR build out wastewater flows while maintaining capacity for existing undeveloped lots within the MCMWSD. Refer to the SMR Water and Wastewater Master Plan (2026) for further details on the phased development approach, WWTF capacity analysis, and timing of the impending expansion.

It is understood that in 2030, the Water Quality Control Division will be proposing, for the Water Quality Control Commission's adoption, statewide nutrient regulations that will impact design requirements for any expansion. MCMWSD has expressed a desire to understand the new regulations prior to beginning the expansion process so that the new regulations can inform future design of any treatment technology upgrades.

Although MCMWSD's discharges constitute a relatively small portion of total watershed loading to Stagecoach Reservoir, in an effort to decrease the nutrient load into the reservoir prior to expansion, SMR has delayed the phasing plan to accomplish slower growth in the first phases to limit the amount of additional wastewater being treated in the system prior to future treatment technology upgrades. In addition to the slow-paced start to development, operational improvements may be implemented as early as 2027-2028, further mitigating nutrient loading and delaying the need for a full expansion/treatment upgrade.

A full capacity expansion of the Wastewater Treatment Facility (WWTF) is planned for post-SMR buildout in 2051. SMR proposes implementing operational improvements and/or major treatment technology upgrades before this full expansion. This proactive approach would help lower nutrient loading early in the development process and provide MCMWSD with the flexibility to calibrate the final capacity of the expansion to actual, rather than anticipated, future flows associated with SMR. Given the 20+ year buildout schedule for SMR, the MCMWSD service area and projected development beyond SMR may evolve. Delaying the full plant expansion allows for these possible changes to be considered. It also prevents potential complications associated with MCMWSD operating a plant at a small percentage of full capacity, which generally makes operations more difficult.

Timing of the treatment technology improvements will be based on the definition of *Significant Degradation* to the reservoir. Pursuant to site approvals and discharge permit issued by the State, MCMWSD is legally entitled to discharge at its full permitted capacity of 350,000 gpd. As such, "significant degradation" may be defined based on any loading *in excess* of the loading associated with MCMWSD discharging at 350,000 gpd. However, SMR proposes defining "significant degradation" in the most conservative manner possible: preventing nutrient loading from exceeding existing conditions, or, in other words, preventing any degradation. The chart below shows the projected loading from the WWTF only, inclusive of the immediate operational improvements described in the previous section. The chart is limited to 2040 for clarity.



As shown in the chart above, the immediate operational improvements reduce nutrient loading, and then as SMR develops, loading would increase above the existing condition line for both phosphorus and nitrogen in 2034. Because these loading trends are based on estimated demand projections as outlined in the Water and Wastewater Master Plan, SMR instead that the trigger for technology improvements be based on the observed nutrient load (rather than a future year). SMR will work with MCMWSD to continually track the effluent nutrient load and schedule the technology improvements to prevent loading from exceeding existing conditions while maintaining the same overall plant capacity.

The timing of the technological improvements shown above will allow for integration of the new effluent regulations expected in 2030. However, if analysis of the immediate operational improvements discussed in the previous section deems it prudent, MCMWSD may decide to proceed with technology improvements earlier than anticipated. This doesn't allow for full integration of the anticipated regulations; however, it is understood that a form of MBR technology will be needed to meet the anticipated new effluent nutrient limits and MCMWSD would be voluntarily upgrading their treatment technology resulting in an extended grace period with the State when the anticipated effluent regulations are published.

SMR could begin the design alternatives analysis prior to the new regulations being formally adopted in order to confirm design needs and begin permitting and construction as soon as possible following the adoption of nutrient regulations. The following items will be investigated as part of the design alternatives analysis:

- Evaluation of biological capacity
- Additional treatment volumes
- Physical site constraints
- Chemical feeds
- Metal Salts additions
- Filtration methods

A 4-stage Bardenpho Membrane Bioreactor treatment system or similar MBR technology is the most advanced technology treatment available that does not entail the significant adverse impacts associated with reverse osmosis. According to the EPA's Life Cycle Analysis, these type of systems are capable of producing concentrations as low as 0.1 mg/L of phosphorus and 3.0 mg/L of nitrogen.

As a conservative estimate, SMR estimated concentrations of 0.2 mg/L of phosphorus and 3 mg/L of nitrogen to represent nutrient load, assuming MBR, or alternative equivalent, technology is implemented before nutrient levels exceed existing condition. Based on the SMR phasing plan, the nutrient load exceeds existing conditions in 2034.

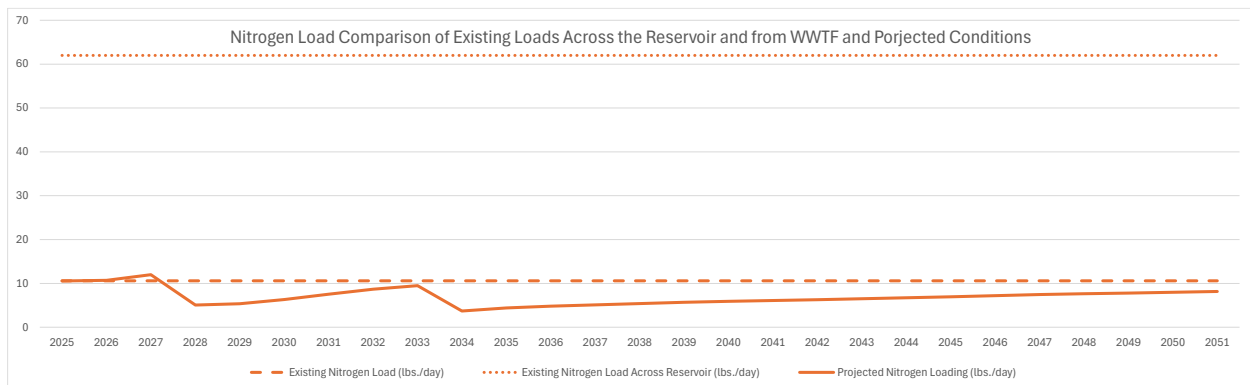
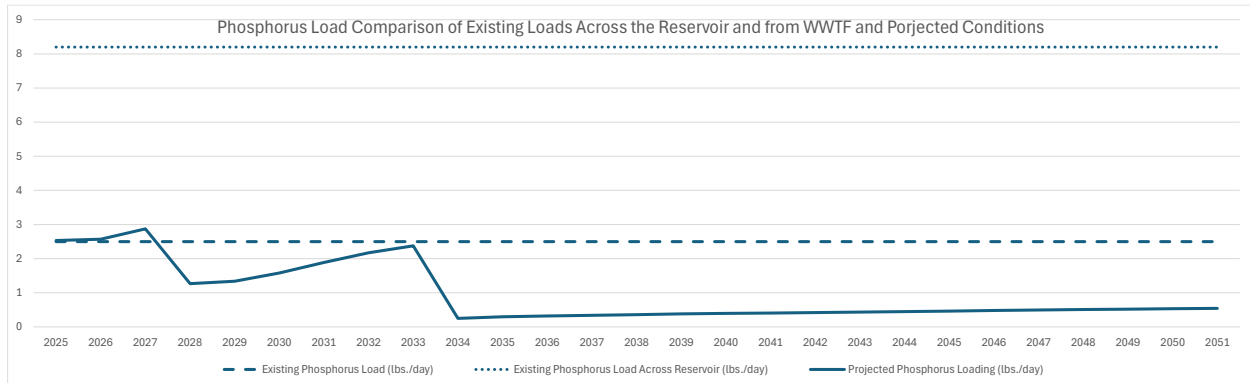
Phosphorus

The additional MBR technology upgrade and expansion will produce an expected future discharge of 0.2 mg/L for Phosphorus. As such, the Phosphorus loading for the proposed SMR with MBR technology would be 0.2 lbs./day based on the SMR phasing plan in 2034.

Nitrogen

An expected future discharge of Nitrogen in 2034 is 3 mg/L. As such, the Nitrogen loading for the proposed SMR with MBR technology would be 3.7 lbs./day based on the SMR phasing plan in 2034.

In summary, SMR proposes that a study should be conducted to understand the potential operational improvements that can be made at the WWTF to reach the full capabilities of the existing SBR technology. During this analysis, an upgrade to MBR technology should also be evaluated as opposed to delaying to the significant degradation trigger described in the previous section. The charts below outline the nutrient loading throughout the SMR buildout timeline incorporating immediate operational improvements and the MBR technology upgrades taking place in 2034, in line with the significant degradation trigger point, allowing the anticipated 2030 effluent regulations to be integrated into the design.



PROJECTED NUTRIENT LOADS DUE TO STORMWATER

PROPOSED STORMWATER DESIGN

Stormwater associated with the proposed Stagecoach Mountain Ranch will be managed through a comprehensive stormwater management system designed to control runoff quantity and protect downstream water quality. Based on a Colorado Discharge Permit System (CDPS) construction stormwater permit, SMR will be required to develop, implement, and adaptively maintain a Stormwater Management Plan (SWMP), which must include control measures and incorporate appropriate engineering, hydrologic and pollution control practices. The SWMP will contain the following components:⁴

- Qualified Stormwater Manager
- Other Permits
 - The plan must list the applicable CDPS permits and low-risk discharge guidance documents associated with the permitted site and the activities occurring on the permitted site.
- Spill Prevention and Response Plan
- Materials Handling
 - The plan must describe handling procedures of all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff.
- Potential Sources of Pollution
 - The plan must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site.
- Implementation of Control Measures
 - The plan must include design specifications that contain information on the implementation of all the control measures in use on the site in accordance with good engineering, hydrologic and pollution control practices.
- Site Description
- Site Map
- Temporary Stabilization, Final Stabilization and Long Term Stormwater Management
 - Document the constraints that require an alternative temporary stabilization schedule, provide the alternate schedule, and identify applicable locations on the site map.
 - Identify all residential lots using the Sale of Residence to Homeowner option, including lots that received temporary stabilization and meet permit requirements, and show their locations on the site map.
 - Describe and locate all final stabilization methods used on the site (e.g., pavement, vegetative cover).
 - Explain how final stabilization will be achieved through vegetative or alternative methods, and describe and locate any temporary control measures used during the process.

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- Describe and locate all planned permanent stormwater control measures that will operate after construction is complete (e.g., detention ponds, rain gardens, stormwater vaults).
- Inspection Reports
- The plan must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee.

The main source of Phosphorus to Stagecoach Reservoir is from stormwater runoff, primarily snowmelt, bringing sediments that are naturally high in Phosphorus into the Reservoir⁵. The proposed stormwater management program for SMR will incorporate 100-year design storm detention ponds with 72-hour holding times for the containment and recharge of stormwater.

Furthermore, the Mile High Flood District published three (3) volumes of the *Urban Storm Drainage Criteria Manual*, the third (3) of which focuses on stormwater quality.⁶ The following were recommended for volume reduction and better integration of water quality facilities:

- Consider stormwater quality needs early in the development process.
- Take advantage of the entire site when planning for stormwater quality treatment.
- Place stormwater in contact with the landscape and soil.
- Minimize unnecessary imperviousness, while maintaining functionality and safety.
- Select treatment areas that promote greater infiltration.

The proposed SMR will incorporate the above five (5) recommendations, which were adapted from the Denver Water Quality Management Plan. The implementation of these recommendations is detailed in the site design report developed by Kimley-Horn and Associates.

BEST MANAGEMENT PRACTICES

Kimley-Horn and Associates have indicated that approximately 281 acres of new impervious surface is proposed at the subject property. Specifically, approximately 130 acres of impervious surface are proposed for the development area within the Stagecoach Reservoir's direct watershed, and 151 acres of impervious area are proposed for development outside the Stagecoach Reservoir's direct watershed. It is anticipated that approximately 80% of this entire area will be treated through traditional stormwater BMPs. By implementing BMPs, nutrient inputs are anticipated to be mitigated upon implementation of the proposed action.

PERMANENT STORMWATER CONTROL MEASURES NUTRIENT LOAD REDUCTION

Permanent PCMs/SCMs (e.g. full spectrum detention, bioretention, pocket wetlands, infiltration trenches, and vegetated conveyance (where feasible)) will adhere to Routt County and Steamboat Engineering Standards regarding triggers and MHFD Volume 3 for selection, sizing, and maintenance. Performance expectations will be supported by the International Stormwater BMP Database.

⁵ <https://pubs.usgs.gov/wri/1995/4101/report.pdf>

⁶ <https://mhfd.org/resources/criteria-manual>

Table A. Stormwater BMPs/SCMs—Planning-Level Nutrient Removal Ranges (SMR context)

BMP / PCM (as in Stormwater Report)	TN removal	TP removal	Evidence / Notes
Full Spectrum Detention	N/A	25% Median Up to 70%	International BMP Database Median (95% confidence interval). Literature sited max range.
Bioretention / Raingarden	24% Median Up to 70%	N/A	International BMP Database Median (95% confidence interval). Literature supported max range.
Wetland Basin or Channel	17% Median Up to 70%	28% Median Up to 80%	International BMP Database Median (95% confidence interval). Literature sited max range.
Media Filter (i.e. sand filters, engineered vaults)	16% Median Up to 80%	45% Median Up to 90%	International BMP Database Median (95% confidence interval). Literature sited max range.

Proper design, construction, and operation and maintenance (O&M) can achieve higher removal (closer to top of range).

Pursuant to Kimley-Horn and Associates, the proposed stormwater ponds are expected to have median total Phosphorus removal efficiencies of 25%.⁷ Based on this design, the mitigated levels of Phosphorus can be calculated. It is noted that there is no evidence to show a reduction in Nitrogen from stormwater detention ponds. As such, the Nitrogen loads due to stormwater calculated in Section 2.2 would not be reduced via detention ponds.

SMR Area within the Stagecoach Reservoir Sub-basin

As indicated in Section 2.2, the total preliminary Phosphorus load from stormwater within the Stagecoach Reservoir Watershed would be approximately 0.9 lbs./day over 2,184 acres (see Figure 3). Through the use of stormwater ponds, the Phosphorus load can be reduced by 0.01 lbs./day for the 104 acres being treated (80% of 130 acres), as calculated below.

This reduces the stormwater Phosphorus load contributing directly to Stagecoach Reservoir nominally by 0.01 lbs./day.

SMR Area outside the Stagecoach Reservoir Sub-basin

The development area outside of the direct reservoir watershed area would be approximately 3,885 acres, which has a preliminary Phosphorus load of 1.6 lbs./day. As indicated above, approximately 151 acres of new impervious area is proposed for development outside the Stagecoach Reservoir Watershed. 80% of this, or 121 acres, will be treated through stormwater ponds.

As such, the mitigated Phosphorus load from stormwater would be reduced to 2.4 lbs./day, with 0.9 lbs./day contributing directly to Stagecoach Reservoir. This reduction in Phosphorus loading is anticipated to be effective by 2028.

⁷ https://www.waterrf.org/system/files/resource/2020-11/DRPT-4968_0.pdf

Stormwater impacts were also evaluated. Approximately 281 acres of new impervious surface area proposed, with 80% treated using stormwater BMPs. Stormwater detention ponds are assumed to remove 25% of Phosphorus, though they are not expected to reduce nitrogen.

- Both within and outside the Stagecoach Reservoir watershed, stormwater BMPs would reduce Phosphorus loading by approximately 0.01 lbs./day.

Overall, the proposed BMPs that will be implemented will result in a slight improvement to the nutrient loading in the reservoir due to stormwater. This is a baseline requirement for any development per County code, and additional stormwater mitigation measures are being considered to further improve the loading to the reservoir and associated water quality concerns.

NATURE BASED MITIGATION STRATEGY

Nature based solutions including riparian buffers, stream enhancement/restoration, and wetland enhancement/creation are intended as complements to engineered controls and are framed by (i) local design criteria (Steamboat/MHFD), (ii) regional policy (NWCCOG 208 Plan), and (iii) site hydrology and water-quality context of both the site and larger Yampa River and Stagecoach Reservoir watershed. Quantification below provides planning-level ranges that will be further refined through additional detailed design and analysis to ensure that the selected nature-based solutions effectively achieve the project's objectives for reducing nitrogen and phosphorus loading to Stagecoach Reservoir and the Yampa River, resulting in a final restoration plan that will be approved as part of the Preliminary Subdivision Approval.

NUTRIENT BENEFITS OF NATURE-BASED SOLUTIONS

Buffers

Site application. The Stormwater Report documents UDC buffer setbacks, approximately 50–200 ft for streams/other waterbodies, with road/ski-run crossings minimized and envisions buffers as part of the permanent stormwater program (treatment trains, dispersion, temperature moderation).

Mechanisms. Buffers reduce nutrients by (1) interception and plant uptake in vegetation/soils, (2) particulate trapping of sediment-bound TP and organic N, and (3) subsurface denitrification where anoxic microsites and organic carbon are present. Wider buffers and shallow groundwater interception generally increase nitrate removal reliability; MHFD Vol. 3 and EPA syntheses provide design and performance context.

Table B. Riparian Buffer Nutrient Removal—Selected References for Planning

Reference / Program	TN removal	TP removal	Notes
Chesapeake Bay TMDL Commission policy brief	Forest: 19–65%; Grass: 13–46%	30–45%	TP is dominated by sediment transport and ability of buffer to reduce. TN is dominated by both surface and groundwater.

Regional calibration note. When correlating upper Chesapeake headwater guidance to Routt County (snowmelt hydrograph, cooler soils, slower vegetation growth), planning values will be lower than Appalachian (WV/PA/VA) ranges; the calibrated values below reflect that local adjustment while keeping methodology consistent with CBP/EPA sources.

Table C. Riparian Buffer Nutrient Removal—Estimated Removals

Method	TN removal	TP removal	Notes
Calibrated Removal Rates (See attached Calculations)	5-15 lb./ac-yr Depending on Valley Slope	0.4-0.9 lb./ac-yr Depending on Valley Slope	East Coast Removal Values would be 4x these values. See Attached for methods

Stream Enhancement and Restoration

Site application. The Stormwater Report emphasizes avoidance/minimization, stable conveyance, and selective enhancement where erosion potential is highest (steeper ditches, culvert outlets, road crossings, etc.). Where channel instability and fine-bank materials are documented, stream restoration may be considered for prevented sediment and floodplain reconnection benefits.

Crediting framework. The most widely accepted methodology in the U.S. is the Unified Stream Restoration Guide by the Chesapeake Bay Program (CBP), prepared by the Center for Watershed Protection and the Chesapeake Stormwater Network (2021). While developed for the Chesapeake Bay TMDL, its protocols are frequently referenced for planning by other programs (e.g., MHFD). The Guide defines Protocols 1–3: prevented sediment (and attached TP/TN), instream hyporheic TN processing, and floodplain deposition/trapping, respectively, each requiring project-specific inputs and meeting qualifying conditions

Table D. Stream Restoration—Planning-Level Quantification Pathways for TN and TP-Level Quantification Pathways for TN and TP

Element	How quantified	Typical planning inputs	Outcome metric	References
Protocol 1: Prevented Sediment	Pre/post bank retreat x bank height/length x bulk density; convert with measured %N/%P in bank material	Field retreat rates; geotechnical bulk density; laboratory %N/%P	lb/ft/yr of TP & TN avoided (attached to sediment)	Unified Stream Restoration Guide (CBP)
Protocol 2: Instream Processing	Reach-scale denitrification/assimilation uplift from hyporheic exchange and roughness	Hydraulic residence time; baseflow fraction; temperature; carbon	% TN reduction across restored reach (often 5–20% at planning stage)	Unified Stream Restoration Guide (CBP)
Protocol 3: Floodplain Reconnection	Event-based overbank engagement and depositional trapping	Bench elevation/area; event frequency; sediment gradation	% TP reduction during engaging events (10–30%); incremental TN retention	Unified Stream Restoration Guide (CBP)

Table E. Stream Restoration Nutrient Removal—Estimated for Routt County

Type of Method Table D	TN removal	TP removal	Notes/Assumptions
Unstable Section of River/Stream	0.07 lb./LF-yr	0.03 lb./LF-year	Bank Heights 2X bankfull max with High BEHI and Low NBS

Note: Protocol 1 delivers most of the TN and TP reductions as reduced sediment sources. Where design supports it, add Protocol 2 TN credit and Protocol 3 TP/TN credit (treatable flow in the floodplain trapping zone with wetland-type removal efficiencies) to produce stacked, reach-scale totals.

Table F. Proposed Nature-based Solution Site Removal Estimates

Element	Quantity (AC)	Estimated TN Removal	Estimated TP Removal	Notes/Assumptions
Riparian Buffer Enhancement (Yampa River) (1-3% slope)	91.5	914 lb/yr	54.9 lb/yr	Within the geomorphic floodplain of the Yampa River, cattle to be removed and land to be restored to diverse native plant communities. Assumes moderate nutrient removal due to slope and adjacency to the Yampa River.
Riparian Buffer Enhancement (Yampa River) (1-2% slope)	24.9	373 lb/yr	22.41 lb/yr	Within the inner buffer of the Yampa River, immediately adjacent to riverbank. Assumes high nutrient removal due to slope and proximity to the Yampa River.
Riparian Buffer Enhancement (Jack Creek) (3-9% Slope)	5.9	59 lb/yr	3.54 lb/yr	Within the inner buffer of Jack Creek, a tributary to the Yampa River. Assumes moderate nutrient removal due to the removal of cattle and adjacency to the Yampa River.
Riparian Buffer Enhancement (Unnamed drainage into Yampa River) (3-10% slope)	6.4	32 lb/yr	1.92 lb/yr	Within the inner buffer of the stream/wetland drainage complex west of Jack Creek. Assumes low nutrient removal due to the removal of cattle, slope, and adjacency to the Yampa River.
Riparian Buffer Enhancement (Raspberry Creek) (5-10% slope)	6.0	30 lb/yr	1.8 lb/yr	Within the inner buffer of Raspberry Creek. Assumes low nutrient removal due to slope and adjacency to the Yampa River.
Total		1,408 lb/yr 3.86 lb/day	84.57 lb/yr 0.23 lb/day	

22 SUMMARY AND CONCLUSIONS

The 228-square-mile watershed upstream of Stagecoach Reservoir contributes significant non-point source pollution and represents a substantial portion of total nutrient loading to the Reservoir. Non-point sources, primarily stormwater runoff and snowmelt transporting sediment-bound phosphorus, are understood to be the dominant contributor. A smaller, but measurable, portion of nutrient loading originates from point source discharges within the watershed. Several facilities discharge to the Yampa River or its tributaries, and two discharge directly to Stagecoach Reservoir: Colorado Parks and Wildlife’s domestic wastewater treatment facility (WWTF) and the Morrison Creek Metropolitan Water & Sanitation District (MCMWSD) WWTF.

Using data within the UYWCD Report, the observed increase in nutrient concentrations across Stagecoach Reservoir is approximately 8.2 lbs/day of phosphorus and 62 lbs/day of nitrogen. The charts below detail the breakdown of point and non-point source contributions.



Stormwater (Existing Conditions – No BMP Implementation)

Preliminary estimates indicate that stormwater from the SMR development would generate approximately:

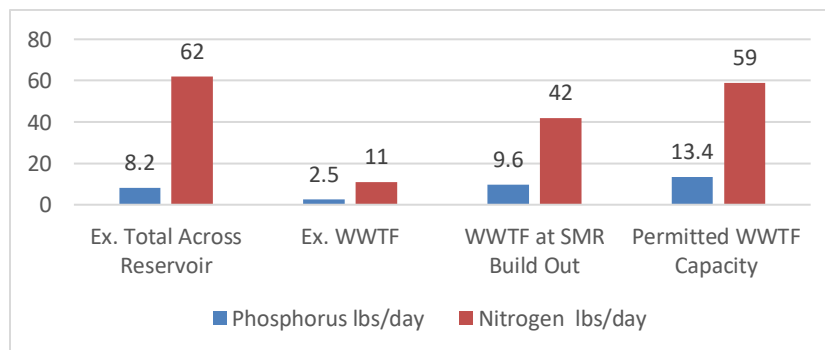
- Phosphorus: 2.5 lbs/day (0.9 lbs/day directly contributing to Stagecoach Reservoir)
- Nitrogen: 21.7 lbs/day (7.8 lbs/day directly contributing to Stagecoach Reservoir)

These values represent existing conditions and do not account for implementation of Best Management Practices (BMPs).

Wastewater – Full Buildout

- At full buildout, the SMR development is projected to yield:
 - Phosphorus: 9.6 lbs/day
 - Nitrogen: 42 lbs/day

These loads are associated with MCMWSD wastewater discharges prior to advanced treatment upgrades. The chart below compares the existing condition of the reservoir to the project SMR buildout and MCMWSD permitted capacity nutrient loading.



Proposed Mitigation Strategies

1. Immediate MCMWSD WWTF Operational Improvements

Near-term operational improvements are proposed to reduce nutrient concentrations prior to full facility expansion. These include:

- Chemical feed addition (metal salts) to reduce phosphorus
- Denitrification process improvements
- Controls upgrades and automation
- Process optimization
- Construction of an equalization basin at the plant headworks

These operational enhancements are anticipated to achieve the below effluent concentrations by 2028, consistent with the proposed investigation and implementation timeline.

- Phosphorus: 2 mg/L
- Nitrogen: 8 mg/L

2. WWTF Advanced Treatment Technology and Expansion

It is anticipated that in 2030, the Water Quality Control Division will propose statewide nutrient regulations for adoption by the Water Quality Control Commission. These forthcoming regulations are expected to influence design criteria and effluent limits for any facility expansion. MCMWSD has expressed its intent to align expansion planning with the final adopted regulatory framework to ensure that treatment upgrades are designed to meet future nutrient standards and avoid retrofits.

A 4-stage Bardenpho Membrane Bioreactor (MBR) system, or similar advanced MBR technology, represents the highest level of nutrient removal currently available without the substantial environmental and operational impacts associated with reverse osmosis. According to U.S. Environmental Protection Agency life-cycle analyses, such systems are capable of achieving effluent concentrations as low as:

- 0.1 mg/L phosphorus
- 3.0 mg/L nitrogen

For planning purposes, SMR conservatively assumes the below effluent concentrations beginning in 2034 following implementation of MBR technology:

- 0.2 mg/L phosphorus
- 3.0 mg/L nitrogen

As described, there are multiple pathways for improving the effluent water quality at MCMWSD's WWTF. The demand projections outlined in the Water and Wastewater Master Plan are estimates. Therefore, SMR proposes that the trigger for technology improvements be based on observed nutrient load rather than a specific year. SMR will collaborate with MCMWSD to continually monitor effluent nutrient loads and schedule the technology improvements to prevent the loading from exceeding current conditions, while maintaining the same overall plant capacity.

The timing of the technological improvements in 2034 will allow for the integration of new effluent regulations expected in 2030. However, if analysis of the immediate operational improvements, as discussed earlier, suggests that it is prudent, MCMWSD may decide to proceed with technology improvements sooner instead of starting with operational improvements. Although this approach may not fully integrate the anticipated regulations, it is understood that some form of MBR technology will be necessary to meet the expected new effluent nutrient limits. By voluntarily upgrading their treatment technology, MCMWSD would potentially receive an extended grace period from the State when the new effluent regulations are published.

3. *Stormwater Temporary and Permanent Control Measures*

The main source of Phosphorus to Stagecoach Reservoir is from stormwater runoff, primarily snowmelt, bringing sediments that are naturally high in Phosphorus into the Reservoir. The proposed stormwater management program for SMR will incorporate 100-year design storm detention ponds with 72-hour holding times for the containment and recharge of stormwater. Permanent PCMs/SCMs (e.g. full spectrum detention, bioretention, pocket wetlands, infiltration trenches, and vegetated conveyance (where feasible)) will adhere to Routt County and Steamboat Engineering Standards regarding triggers and MHFD Volume 3 for selection, sizing, and maintenance. Performance expectations will be supported by the International Stormwater BMP Database. Phosphorus loading is anticipated to be negligible with the immediate and permanent stormwater control measures, while nitrogen reduction will be achieved through treatment plant upgrades.

Additional Mitigation Options:

1. *Nature-based Solutions*

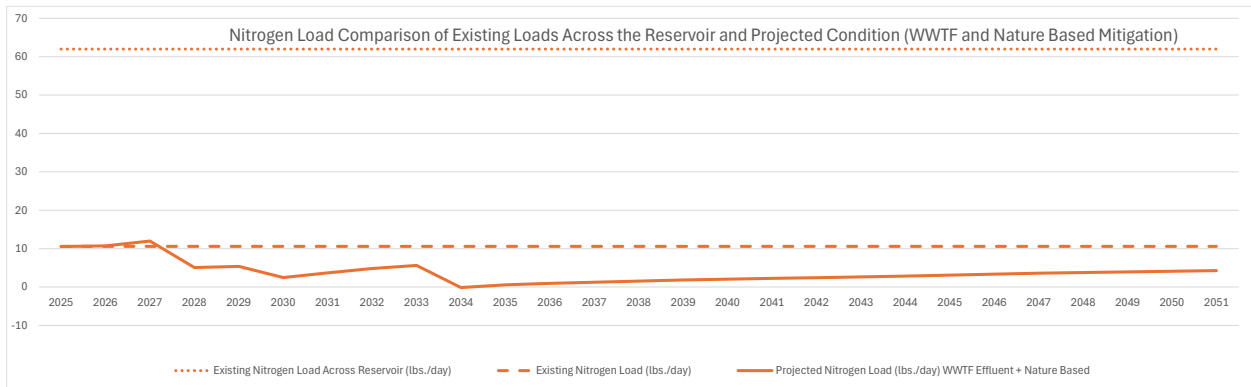
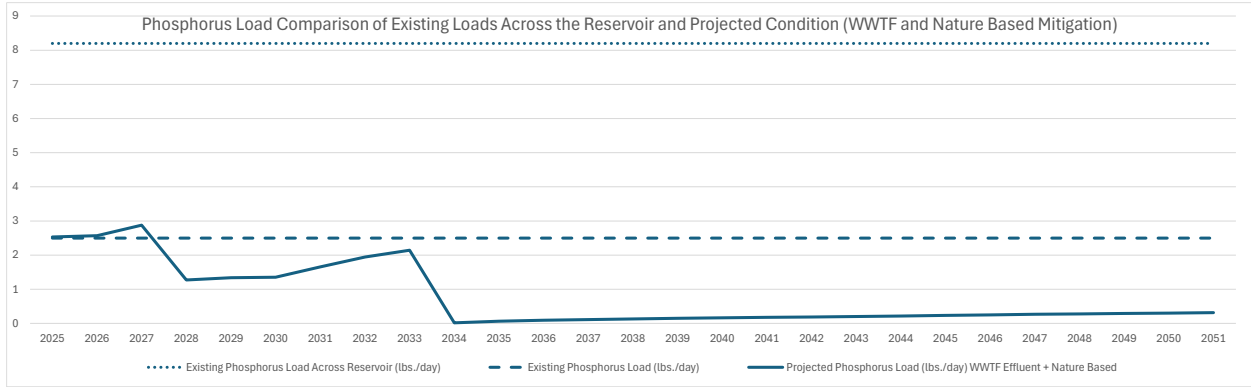
Nature based solutions including riparian buffers, stream enhancement/restoration, and wetland enhancement/creation are intended as complements to engineered controls and are framed by (i) local design criteria (Steamboat/MHFD), (ii) regional policy (NWCCOG 208 Plan), and (iii) site hydrology and water-quality context of both the site and larger Yampa River and Stagecoach Reservoir watershed. Buffers reduce nutrients by (1) interception and plant uptake in vegetation/soils, (2) particulate trapping of sediment-bound TP and organic N, and (3) subsurface denitrification where anoxic microsites and organic carbon are present. Wider buffers and shallow groundwater interception generally increase nitrate removal reliability. This option is currently in planning stages and project commitments are to be refined in furthermore detailed design and analysis.

In conclusion, the proposed phased mitigation strategy combining immediate operational improvements, advanced wastewater treatment expansion, comprehensive stormwater management, and integrated nature-based solutions, provides a robust and adaptive framework for addressing SMR's nutrient contributions to Stagecoach Reservoir.

While preliminary projections indicate measurable phosphorus and nitrogen loading associated with full buildout, the phased incorporation of advanced MBR treatment technology, enhanced stormwater controls, and watershed-based ecological interventions is expected to substantially reduce net nutrient contributions relative to existing watershed loading dynamics and address nutrient loading as phased SMR operations become online. Importantly, the phased approach allows MCMWSD to align capital investments with forthcoming statewide nutrient regulations, ensuring regulatory compliance, long-term cost efficiency, and avoidance of premature infrastructure retrofits.

Collectively, these strategies not only mitigate project-related impacts but also contribute to broader watershed resilience objectives. By pairing high-performance engineered systems with landscape-scale nutrient attenuation measures, the SMR development positions itself to minimize incremental loading, support water quality protection in Stagecoach Reservoir, and adapt proactively to evolving regulatory standards and scientific understanding of nutrient management.

If all mitigation measures described in this report are utilized, including the nature-based estimates on nutrient reduction, the following charts depict the phosphorus and nitrogen loadings into the reservoir throughout the SMR buildout timeline.



APPENDIX A – 2025 MCMWSD WWTF DISCHARGE MONITORING REPORT

EPA may make all the information submitted through this form (including all attachments) available to the public without further notice to you. Do not use this online form to submit personal information (e.g., non-business cell phone number or non-business email address), confidential business information (CBI), or if you intend to assert a CBI claim on any of the submitted information. Pursuant to 40 CFR 2.203(a), EPA is providing you with notice that all CBI claims must be asserted at the time of submission. EPA cannot accommodate a late CBI claim to cover previously submitted information because efforts to protect the information are not administratively practicable since it may already be disclosed to the public. Although we do not foresee a need for persons to assert a claim of CBI based on the types of information requested in this form, if persons wish to assert a CBI claim we direct submitters to contact the [NPDES eReporting Help Desk](#) for further guidance. Please note that EPA may contact you after you submit this report for more information.

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Permit			
Permit #:	CO0022969	Permittee:	Morrison Creek Metropolitan Water and Sanitation District
Major:	No	Permittee Address:	24490 Uncompahgre Rd Oak Creek, CO 80467
Permitted Feature:	001 External Outfall	Discharge:	001-A Discharge to Stagecoach Reservoir
Facility:		Facility Location:	MORRISON CREEK METRO WWTF 24490 UNCOMPAHGRE RD OAK CREEK, CO 80467

Report Dates & Status			
Monitoring Period:	From 01/01/25 to 01/31/25	DMR Due Date:	02/28/25
Status:	NetDMR Validated		

Considerations for Form Completion
Oil and grease - see I.A.2, pg 3. If no chlorine was used, report "NCT" (no chlorine treatment). Report influent samples on DMR marked 300I.

Principal Executive Officer			
First Name:	William	Title:	ORC Wastewater
Last Name:	Queen	Telephone:	970-736-8250

No Data Indicator (NODI)
Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	6.4	=	6.4	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	30.0 30DA AVG	<=	45.0 MX 7D AV	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00400	pH	1 - Effluent Gross	0	--	Sample						=	6.96	=	7.11	12 - SU	0	01/07 - Weekly	GR - Grab	
					Permit Req.						>=	6.5 MINIMUM	<=	9.0 MAXIMUM	12 - SU		01/07 - Weekly	GR - Grab	
					Value NODI														
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	3.67	=	3.67	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	30.0 30DA AVG	<=	45.0 MX 7D AV	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	1	--	Sample						=	0.435	=	0.435	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	31.0 30DA AVG	<=	46.0 DAILY MX	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00610	Nitrogen, ammonia total [as N]	P - See Comments	1	--	Sample						=	4.2			19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	19.6 ROLL AVG			19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample	=	1.86	=	1.86	26 - lb/d	=	4.83	=	4.83	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.		Req Mon 30DA AVG		Req Mon DAILY MX	26 - lb/d		Req Mon 30DA AVG		Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
03582	Oil and grease	1 - Effluent Gross	0	--	Sample											0	77/77 - Contingent	GR - Grab	
					Permit Req.									<=	10.0 INST MAX		19 - mg/L		
					Value NODI										B - Below Detection Limit/No Detection				
					Sample	=	0.061574	=	0.0782	03 - MGD						99/99 - Continuous	RC - Recorder (auto)		

50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Permit Req.	<=	0.35 30DA AVG	Req Mon DAILY MX	03 - MGD									0	99/99 - Continuous	RC - Recorder (auto)		
					Value NODI																	
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample									=	0.03				19 - mg/L	02/30 - Twice Per Month	GR - Grab	
					Permit Req.	<=	0.086 INST MAX												19 - mg/L	0	02/30 - Twice Per Month	GR - Grab
					Value NODI																	
51040	E. coli	1 - Effluent Gross	0	--	Sample									=	21.41				13 - #/100mL	01/07 - Weekly	GR - Grab	
					Permit Req.	<=	126.0 30DA GM							<=	252.0 MX 7D GM				13 - #/100mL	0	01/07 - Weekly	GR - Grab
					Value NODI																	
81010	BOD, 5-day, percent removal	K - Percent Removal	0	--	Sample									=	93.0				23 - %	01/30 - Monthly	CA - Calculated	
					Permit Req.	>=	85.0 MO AV MN												23 - %	0	01/30 - Monthly	CA - Calculated
					Value NODI																	
81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample									=	95.0				23 - %	01/30 - Monthly	CA - Calculated	
					Permit Req.	>=	85.0 MO AV MN												23 - %	0	01/30 - Monthly	CA - Calculated
					Value NODI																	
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample			=	0.0	AB - abst=0;prst=1										02/07 - Twice Every Week	VI - Visual	
					Permit Req.				Req Mon INST MAX	AB - abst=0;prst=1										0	02/07 - Twice Every Week	VI - Visual
					Value NODI																	

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

Morrison Creek Metropolitan Water and Sanitation District

User: BILL@MCWATER.ORG
 Name: William Queen
 E-Mail: bill@mcwater.org
 Date/Time: 2025-02-21 13:31 (Time Zone: -07:00)

Report Last Signed By

User: BILL@MCWATER.ORG
 Name: William Queen
 E-Mail: bill@mcwater.org
 Date/Time: 2025-02-21 13:35 (Time Zone: -07:00)

EPA may make all the information submitted through this form (including all attachments) available to the public without further notice to you. Do not use this online form to submit personal information (e.g., non-business cell phone number or non-business email address), confidential business information (CBI), or if you intend to assert a CBI claim on any of the submitted information. Pursuant to 40 CFR 2.203(a), EPA is providing you with notice that all CBI claims must be asserted at the time of submission. EPA cannot accommodate a late CBI claim to cover previously submitted information because efforts to protect the information are not administratively practicable since it may already be disclosed to the public. Although we do not foresee a need for persons to assert a claim of CBI based on the types of information requested in this form, if persons wish to assert a CBI claim we direct submitters to contact the [NPDES eReporting Help Desk](#) for further guidance. Please note that EPA may contact you after you submit this report for more information.

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Major:	No	Permittee Address:	24490 Uncompahgre Rd Oak Creek, CO 80467
Permitted Feature:	001 External Outfall	Discharge:	001-A Discharge to Stagecoach Reservoir
Facility:		Facility Location:	MORRISON CREEK METRO WWTF 24490 UNCOMPAHGRE RD OAK CREEK, CO 80467

Report Dates & Status			
Monitoring Period:	From 02/01/25 to 02/28/25	DMR Due Date:	03/28/25
Status:	NetDMR Validated		

Considerations for Form Completion
Oil and grease - see I.A.2, pg 3. If no chlorine was used, report "NCT" (no chlorine treatment). Report influent samples on DMR marked 300I.

Principal Executive Officer			
First Name:	William	Title:	ORC Wastewater
Last Name:	Queen	Telephone:	970-736-8250

No Data Indicator (NODI)
Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	6.2	=	6.2	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	30.0 30DA AVG	<=	45.0 MX 7D AV	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00400	pH	1 - Effluent Gross	0	--	Sample						=	6.74	=	6.89	12 - SU	0	01/07 - Weekly	GR - Grab	
					Permit Req.						>=	6.5 MINIMUM	<=	9.0 MAXIMUM	12 - SU		01/07 - Weekly	GR - Grab	
					Value NODI														
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	2.67	=	2.67	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	30.0 30DA AVG	<=	45.0 MX 7D AV	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	2	--	Sample						=	0.105	=	0.105	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	31.0 30DA AVG	<=	51.0 DAILY MX	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00610	Nitrogen, ammonia total [as N]	P - See Comments	2	--	Sample						=	4.138			19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.						<=	19.9 ROLL AVG			19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample	=	1.89	=	1.89	26 - lb/d	=	3.64	=	3.64	19 - mg/L	0	01/30 - Monthly	CP - Composite	
					Permit Req.		Req Mon 30DA AVG		Req Mon DAILY MX	26 - lb/d		Req Mon 30DA AVG		Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - Composite	
					Value NODI														
03582	Oil and grease	1 - Effluent Gross	0	--	Sample											0	77/77 - Contingent	GR - Grab	
					Permit Req.									<=	10.0 INST MAX		19 - mg/L		
					Value NODI										B - Below Detection Limit/No Detection				
					Sample	=	0.06845	=	0.0929	03 - MGD						99/99 - Continuous	RC - Recorder (auto)		

50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	--	Permit Req.	<=	0.35 30DA AVG	Req Mon DAILY MX	03 - MGD									0	99/99 - Continuous	RC - Recorder (auto)			
					Value NODI																		
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample								=	0.04					19 - mg/L	02/30 - Twice Per Month	GR - Grab		
					Permit Req.	<=	0.086 INST MAX												19 - mg/L	0	02/30 - Twice Per Month	GR - Grab	
					Value NODI																		
51040	E. coli	1 - Effluent Gross	0	--	Sample							=	17.3	=	35.0				13 - #/100mL	01/07 - Weekly	GR - Grab		
					Permit Req.	<=	126.0 30DA GM												13 - #/100mL	0	01/07 - Weekly	GR - Grab	
					Value NODI																		
81010	BOD, 5-day, percent removal	K - Percent Removal	0	--	Sample							=	94.66						23 - %	01/30 - Monthly	CA - Calculated		
					Permit Req.	>=	85.0 MO AV MN												23 - %	0	01/30 - Monthly	CA - Calculated	
					Value NODI																		
81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample							=	97.9						23 - %	01/30 - Monthly	CA - Calculated		
					Permit Req.	>=	85.0 MO AV MN												23 - %	0	01/30 - Monthly	CA - Calculated	
					Value NODI																		
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample		=	0.0	AB - abst=0;prst=1											0	02/07 - Twice Every Week	VI - Visual	
					Permit Req.			Req Mon INST MAX	AB - abst=0;prst=1												0	02/07 - Twice Every Week	VI - Visual
					Value NODI																		

Submission Note
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Edit Check Errors
No errors.

Comments

Attachments
No attachments.

Report Last Saved By
Morrison Creek Metropolitan Water and Sanitation District

User: BILL@MCWATER.ORG
Name: William Queen
E-Mail: bill@mcwater.org
Date/Time: 2025-03-06 14:25 (Time Zone: -07:00)

Report Last Signed By

User: BILL@MCWATER.ORG
Name: William Queen
E-Mail: bill@mcwater.org
Date/Time: 2025-03-06 14:26 (Time Zone: -07:00)

					Value NODI														
81010	BOD, 5-day, percent removal	K - Percent Removal	0	--	Sample	=	96.0								23 - %		01/30 - Monthly	CA - Calculated	
					Permit Req.	>=	85.0 MO AV MN						23 - %	0	01/30 - Monthly	CA - Calculated			
					Value NODI														
81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample	=	90.5								23 - %		01/30 - Monthly	CA - Calculated	
					Permit Req.	>=	85.0 MO AV MN						23 - %	0	01/30 - Monthly	CA - Calculated			
					Value NODI														
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample	=	0.0	AB - abst=0;prst=1									02/07 - Twice Every Week VI - Visual		
					Permit Req.		Req Mon INST MAX AB - abst=0;prst=1									0	02/07 - Twice Every Week VI - Visual		
					Value NODI														

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

Morrison Creek Metropolitan Water and Sanitation District

User: BILL@MCWATER.ORG
 Name: William Queen
 E-Mail: bill@mcwater.org
 Date/Time: 2025-04-22 12:49 (Time Zone: -06:00)

Report Last Signed By

User: BILL@MCWATER.ORG
 Name: William Queen
 E-Mail: bill@mcwater.org
 Date/Time: 2025-04-22 12:49 (Time Zone: -06:00)

May 02, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L94168

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 22, 2025. This project has been assigned to ACZ's project number, L94168. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L94168. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 01, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
 Sample ID: EFF 1

ACZ Sample ID: **L94168-01**
 Date Sampled: 04/22/25 14:00
 Date Received: 04/22/25
 Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								04/30/25 10:37	ptw
Phosphorus, total	EPA 365.1								04/30/25 13:18	krs

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	630			umhos/cm	1	10	04/29/25 23:08	jck
Lab Filtration (0.45um filter)	SOPWC050	1							04/23/25 18:48	jck
Nitrate as N	Calculation (NO3NO2-NO2)		14.0			mg/L	0.2	1	05/02/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	10	14.0		*	mg/L	0.2	1	04/23/25 1:10	pjb
Nitrite as N	EPA 353.2	1	0.020	B	*	mg/L	0.01	0.05	04/23/25 1:04	pjb
Nitrogen, ammonia	EPA 350.1	1	<0.1	U	*	mg/L	0.1	0.2	04/30/25 13:38	gfm
Nitrogen, organic	Calculation (TKN-NH3)		2.9			mg/L	0.2	0.5	05/02/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	1	2.91		*	mg/L	0.2	0.5	05/01/25 1:11	pjb
Phosphorus, total	EPA 365.1	10	2.71		*	mg/L	0.1	0.5	04/30/25 16:34	ems
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		17			mg/L	0.1	0.5	05/02/25 0:00	calc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L94168**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L94168-01	WG609981	Nitrate/Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG610419	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG610457	Nitrogen, total Kjeldahl	EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
WG610448	Phosphorus, total	EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).	

Morrison Creek Water District

ACZ Project ID: **L94168**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L94168
 Date Received: 04/22/2025 15:43
 Received By:
 Date Printed: 4/23/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA44864	4.3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Morrison Creek Water District

ACZ Project ID: L94168
Date Received: 04/22/2025 15:43
Received By:
Date Printed: 4/23/2025

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

June 04, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L94757

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 19, 2025. This project has been assigned to ACZ's project number, L94757. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L94757. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after July 04, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF 1

ACZ Sample ID: **L94757-01**
Date Sampled: 05/19/25 14:30
Date Received: 05/19/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								05/28/25 12:27	erh/ma d
Phosphorus, total	EPA 365.1								05/27/25 14:50	erh

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	766			umhos/cm	1	10	05/27/25 22:45	emk
Lab Filtration (0.45um filter)	SOPWC050	1							05/23/25 9:57	cjk
Nitrate as N	Calculation (NO3NO2-NO2)		9.20			mg/L	0.1	0.5	06/04/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	5	9.27		*	mg/L	0.1	0.5	05/21/25 0:52	pjb
Nitrite as N	EPA 353.2	1	0.069		*	mg/L	0.01	0.05	05/21/25 0:15	pjb
Nitrogen, ammonia	EPA 350.1	1	3.88		*	mg/L	0.1	0.2	06/03/25 15:01	gfm
Nitrogen, organic	Calculation (TKN-NH3)		3.4			mg/L	0.6	1.5	06/04/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	3	7.24		*	mg/L	0.6	1.5	05/29/25 23:04	pjb
Phosphorus, total	EPA 365.1	10	3.31		*	mg/L	0.1	0.5	05/29/25 11:45	gfm
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		17			mg/L	0.1	0.5	06/04/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L94757**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L94757-01	WG611617	Nitrate/Nitrite as N	EPA 353.2	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG612517	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG612222	Nitrogen, total Kjeldahl	EPA 351.2	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG612157	Phosphorus, total	EPA 365.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
EPA 365.1	RA		Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).		

Morrison Creek Water District

ACZ Project ID: **L94757**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L94757
 Date Received: 05/19/2025 16:28
 Received By:
 Date Printed: 5/20/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
7530	1.6	<=6.0	15	Yes

Was this a domestic shipment?

Yes - This is a domestic shipment.

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Morrison Creek Water District

ACZ Project ID: L94757

Date Received: 05/19/2025 16:28

Received By:

Date Printed: 5/20/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

July 11, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L95254

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 10, 2025. This project has been assigned to ACZ's project number, L95254. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L95254. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 10, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF2

ACZ Sample ID: **L95254-01**
Date Sampled: 06/10/25 14:00
Date Received: 06/10/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								06/17/25 8:52	erh
Phosphorus, total	EPA 365.1								06/16/25 14:23	erh

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	782			umhos/cm	1	10	07/07/25 19:22	asn cjk
Lab Filtration (0.45um filter)	SOPWC050	1							06/18/25 12:38	ptw
Nitrate as N	Calculation (NO3NO2-NO2)		0.160			mg/L	0.02	0.1	07/11/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	1	0.180		*	mg/L	0.02	0.1	06/11/25 2:17	pjb
Nitrite as N	EPA 353.2	1	0.020	B	*	mg/L	0.01	0.05	06/11/25 2:17	pjb
Nitrogen, ammonia	EPA 350.1	1	12.3		*	mg/L	0.1	0.2	06/16/25 17:35	gfm
Nitrogen, organic	Calculation (TKN-NH3)		10			mg/L	2	5	07/11/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	10	22.4		*	mg/L	2	5	06/21/25 2:56	pjb
Phosphorus, total	EPA 365.1	10	4.62		*	mg/L	0.1	0.5	06/17/25 15:06	ems
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		23			mg/L	0.1	0.5	07/11/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L95254**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95254-01	WG613041	Nitrate/Nitrite as N	EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
			EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.	
	WG613501	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG613934	Nitrogen, total Kjeldahl	EPA 351.2	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
WG613597	Phosphorus, total	EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).	

Morrison Creek Water District

ACZ Project ID: **L95254**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L95254
 Date Received: 06/10/2025 16:32
 Received By:
 Date Printed: 6/11/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA45303	0.5	<=6.0	15	Yes

Was this a domestic shipment?

Yes - This is a domestic shipment.

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Morrison Creek Water District

ACZ Project ID: L95254
Date Received: 06/10/2025 16:32
Received By:
Date Printed: 6/11/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

July 21, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L95783

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 07, 2025. This project has been assigned to ACZ's project number, L95783. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L95783. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 20, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF1

ACZ Sample ID: **L95783-01**
Date Sampled: 07/07/25 10:00
Date Received: 07/07/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								07/09/25 13:42	erh
Phosphorus, total	EPA 365.1								07/09/25 12:18	erh

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	805			umhos/cm	1	10	07/15/25 0:35	jck
Lab Filtration (0.45um filter)	SOPWC050	1							07/14/25 12:37	rap
Nitrate as N	Calculation (NO3NO2-NO2)		1.96			mg/L	0.02	0.1	07/21/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	1	2.13		*	mg/L	0.02	0.1	07/09/25 1:09	pjb
Nitrite as N	EPA 353.2	1	0.170		*	mg/L	0.01	0.05	07/09/25 0:35	pjb
Nitrogen, ammonia	EPA 350.1	1	9.55			mg/L	0.1	0.2	07/16/25 14:37	gfm
Nitrogen, organic	Calculation (TKN-NH3)		4			mg/L	1	2.5	07/21/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	5	13.5			mg/L	1	2.5	07/11/25 2:16	pjb
Phosphorus, total	EPA 365.1	10	5.51			mg/L	0.1	0.5	07/10/25 12:31	gfm
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		16			mg/L	0.1	0.5	07/21/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L95783**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95783-01	WG615085	Nitrate/Nitrite as N	EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.

Morrison Creek Water District

ACZ Project ID: **L95783**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L95783
 Date Received: 07/07/2025 16:32
 Received By:
 Date Printed: 7/8/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
7697	1.2	<=6.0	15	Yes

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Morrison Creek Water District

ACZ Project ID: L95783
Date Received: 07/07/2025 16:32
Received By:
Date Printed: 7/8/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

September 11, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L96510

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 11, 2025. This project has been assigned to ACZ's project number, L96510. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L96510. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after October 11, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF-1

ACZ Sample ID: **L96510-01**
Date Sampled: 08/11/25 10:30
Date Received: 08/11/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								08/18/25 10:49	bls
Phosphorus, total	EPA 365.1								08/14/25 11:20	erh

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	944			umhos/cm	1	10	09/08/25 13:34	jck
Lab Filtration (0.45um filter)	SOPWC050	1							08/26/25 9:56	jqr
Nitrate as N	Calculation (NO3NO2-NO2)		4.82			mg/L	0.06	0.3	09/10/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	3	5.62		*	mg/L	0.06	0.3	08/13/25 1:31	pjb
Nitrite as N	EPA 353.2	1	0.804		*	mg/L	0.01	0.05	08/13/25 0:53	pjb
Nitrogen, ammonia	EPA 350.1	1	8.89		*	mg/L	0.1	0.2	08/13/25 15:28	gfm
Nitrogen, organic	Calculation (TKN-NH3)		1.7	B		mg/L	0.8	2	09/10/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	4	10.6		*	mg/L	0.8	2	08/21/25 3:07	pjb
Phosphorus, total	EPA 365.1	10	5.75		*	mg/L	0.1	0.5	08/19/25 11:40	gfm
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		16			mg/L	0.1	0.5	09/10/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Idarado Mining Company

ACZ Project ID: **L96510**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Conductivity @25C

SM 2510 B-2011

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG619356													
WG619356LCSW2	LCSW	09/08/25 13:15	PCN628874	1409		1430	umhos/cm	101	90	110			
L96826-01DUP	DUP	09/08/25 15:01			78	77	umhos/cm				1	20	
WG619356LCSW5	LCSW	09/08/25 16:37	PCN628874	1409		1425	umhos/cm	101	90	110			

Nitrate/Nitrite as N

EPA 353.2

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG617506													
WG617506ICV	ICV	08/13/25 0:47	WI250708-3	2.416		2.413	mg/L	100	90	110			
WG617506ICB	ICB	08/13/25 0:48				U	mg/L		-0.02	0.02			
WG617506LFB	LFB	08/13/25 0:52	WI250801-9	2		1.963	mg/L	98	90	110			
L96516-01AS	AS	08/13/25 0:58	WI250801-9	2	.08	2.07	mg/L	100	90	110			
L96517-01DUP	DUP	08/13/25 1:00			U	U	mg/L				0	20	RA

Nitrite as N

EPA 353.2

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG617506													
WG617506ICV	ICV	08/13/25 0:47	WI250708-3	.609		.61	mg/L	100	90	110			
WG617506ICB	ICB	08/13/25 0:48				U	mg/L		-0.01	0.01			
WG617506LFB	LFB	08/13/25 0:52	WI250801-9	1		.995	mg/L	100	90	110			
L96516-01AS	AS	08/13/25 0:58	WI250801-9	1	U	1.027	mg/L	103	90	110			
L96517-01DUP	DUP	08/13/25 1:00			U	U	mg/L				0	20	RA

Nitrogen, ammonia

EPA 350.1

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG617558													
WG617558ICV	ICV	08/13/25 11:38	WI250716-14	11.988		12.648	mg/L	106	90	110			
WG617558ICB	ICB	08/13/25 11:40				U	mg/L		-0.1	0.1			
WG617603													
WG617603LFB1	LFB	08/13/25 14:58	WI250618-5	10		9.991	mg/L	100	90	110			
L96516-01AS	AS	08/13/25 15:35	WI250618-5	10	.726	10.483	mg/L	98	90	110			
L96517-01DUP	DUP	08/13/25 15:38			U	U	mg/L				0	20	RA
WG617603LFB2	LFB	08/13/25 15:40	WI250618-5	10		9.921	mg/L	99	90	110			

Nitrogen, total Kjeldahl

EPA 351.2

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG618030													
WG618030ICV	ICV	08/21/25 2:28	WI250807-5	4		3.84	mg/L	96	90	110			
WG618030ICB	ICB	08/21/25 2:29				U	mg/L		-0.2	0.2			
WG617843LRB	LRB	08/21/25 2:31				U	mg/L		-0.2	0.2			
WG617843LFB	LFB	08/21/25 2:32	WI250807-3	2.5		2.58	mg/L	103	90	110			
L96527-02LFM	LFM	08/21/25 2:44	WI250807-3	2.5	U	2.26	mg/L	90	90	110			
L96528-01DUP	DUP	08/21/25 2:46			U	U	mg/L				0	20	RA

Idarado Mining Company

ACZ Project ID: **L96510**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Phosphorus, total EPA 365.1

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG617952													
WG617952ICV	ICV	08/19/25 11:23	WI250725-3	.65228		.669	mg/L	103	90	110			
WG617952ICB	ICB	08/19/25 11:25				U	mg/L		-0.01	0.01			
WG617663LRB	LRB	08/19/25 11:26				U	mg/L		-0.01	0.01			
WG617663LFB	LFB	08/19/25 11:28	WI250804-2	.5		.501	mg/L	100	90	110			
L96504-04DUP	DUP	08/19/25 11:33			U	U	mg/L				0	20	RA
L96527-01LFM	LFM	08/19/25 11:42	WI250804-2	.5	U	.432	mg/L	86	90	110			M2

Morrison Creek Water District

ACZ Project ID: **L96510**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L96510-01	WG617506	Nitrate/Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG617603	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG618030	Nitrogen, total Kjeldahl	EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG617952	Phosphorus, total	EPA 365.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Morrison Creek Water District

ACZ Project ID: **L96510**

∅ certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L96510
 Date Received: 08/11/2025 15:34
 Received By:
 Date Printed: 8/12/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
7471	5.9	<=6.0	15	Yes

Ice Present? Yes - Wet ice was present in the shipment container(s).

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Morrison Creek Water District

ACZ Project ID: L96510
Date Received: 08/11/2025 15:34
Received By:
Date Printed: 8/12/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

October 27, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L97357

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 24, 2025. This project has been assigned to ACZ's project number, L97357. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L97357. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 26, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
 Sample ID: EFF 1

ACZ Sample ID: **L97357-01**
 Date Sampled: 09/24/25 14:00
 Date Received: 09/24/25
 Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								09/29/25 13:30	bls
Phosphorus, total	EPA 365.1								09/30/25 9:47	ems

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	953			umhos/cm	1	10	10/20/25 18:12	jck
Lab Filtration (0.45um filter)	SOPWC050	1							10/07/25 10:54	aar
Nitrate as N	Calculation (NO3NO2-NO2)		23.0			mg/L	0.2	1	10/27/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	10	23.3		*	mg/L	0.2	1	09/25/25 1:11	pjb
Nitrite as N	EPA 353.2	1	0.300		*	mg/L	0.01	0.05	09/25/25 1:08	pjb
Nitrogen, ammonia	EPA 350.1	1	0.291		*	mg/L	0.1	0.2	09/28/25 17:53	gfm
Nitrogen, organic	Calculation (TKN-NH3)		1.5			mg/L	0.2	0.5	10/27/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	1	1.76		*	mg/L	0.2	0.5	10/01/25 2:38	pjb
Phosphorus, total	EPA 365.1	10	6.09		*	mg/L	0.1	0.5	10/01/25 10:31	bls
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		25			mg/L	0.1	0.5	10/27/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L97357**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L97357-01	WG620602	Nitrate/Nitrite as N	EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG620780	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG620953	Nitrogen, total Kjeldahl	EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG620967	Phosphorus, total	EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Morrison Creek Water District

ACZ Project ID: **L97357**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L97357
 Date Received: 09/24/2025 16:06
 Received By:
 Date Printed: 9/25/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA46290	-2.2	<=6.0	15	Yes

Ice Present? Yes - Wet ice was present in the shipment container(s).

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Morrison Creek Water District

ACZ Project ID: L97357

Date Received: 09/24/2025 16:06

Received By:

Date Printed: 9/25/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc. **L97357**

CHAIN of CUSTODY

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report to:

Name: William Owen
 Company: Morrison Creek Metro Dist
 E-mail: Bill@McWater.org

Address: 2449a Uncompahgre Rd
O.C., CO 80467
 Telephone: 970 736 8250

Copy of Report to:

Name:
 Company:

E-mail:
 Telephone:

Invoice to:

Name:
 Company: Morrison Creek Metro Dist
 E-mail: TAEO@McWater.org

Address: " "
 Telephone: " "

Copy of Invoice to:

Name:
 Company:
 E-mail:

Address:
 Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes No

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: William Owen Sampler's Site Information State CO Zip code 80467 Time Zone MTA

*Sampler's Signature: William Owen I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the Sample Location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: 3056974
 PO#:
 Reporting state for compliance testing: CO
 Check box if samples include NRC licensed material?

SAMPLE IDENTIFICATION	DATE/TIME	Matrix	# of Containers																
<u>EFF1</u>	<u>9/24 14:00</u>	<u>WW</u>	<u>3</u>																

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
<u>William Owen</u>	<u>9/24 15:10</u>	<u>[Signature]</u>	<u>9/24/03</u> <u>6:50</u>

Qualtrax ID: 1984 Revision #: 3 White - Return with sample. Yellow - Retain for your records.

L97357 Chain of Custody

November 11, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L97838

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 22, 2025. This project has been assigned to ACZ's project number, L97838. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L97838. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after December 11, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF 1

ACZ Sample ID: **L97838-01**
Date Sampled: 10/22/25 13:00
Date Received: 10/22/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								10/28/25 14:22	bls
Phosphorus, total	EPA 365.1								10/24/25 13:10	bls

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	948			umhos/cm	1	10	11/04/25 20:43	jck
Lab Filtration (0.45um filter)	SOPWC050	1							10/27/25 13:18	nls
Nitrate as N	Calculation (NO3NO2-NO2)		3.01			mg/L	0.02	0.1	11/10/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	1	3.15		*	mg/L	0.02	0.1	10/23/25 0:54	pjb
Nitrite as N	EPA 353.2	1	0.142		*	mg/L	0.01	0.05	10/23/25 0:54	pjb
Nitrogen, ammonia	EPA 350.1	1	13.7		*	mg/L	0.1	0.2	10/30/25 16:15	gfm
Nitrogen, organic	Calculation (TKN-NH3)		3	B		mg/L	2	5	11/10/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	10	16.4		*	mg/L	2	5	10/29/25 23:10	pjb
Phosphorus, total	EPA 365.1	10	5.73		*	mg/L	0.1	0.5	10/28/25 16:20	ems
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		20			mg/L	0.1	0.5	11/10/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L97838**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L97838-01	WG622427	Nitrate/Nitrite as N	EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG623053	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG622969	Nitrogen, total Kjeldahl	EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG622847	Phosphorus, total	EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Morrison Creek Water District

ACZ Project ID: **L97838**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L97838
 Date Received: 10/22/2025 16:01
 Received By:
 Date Printed: 10/23/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA46543	2.3	<=6.0	15	Yes

Ice Present? Yes - Wet ice was present in the shipment container(s).

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Morrison Creek Water District

ACZ Project ID: L97838

Date Received: 10/22/2025 16:01

Received By:

Date Printed: 10/23/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

L97838

CHAIN of CUSTODY

Report to:

Name: William Queen
Company:
E-mail: Bill@Mcwater.org

Address: 24490 Uncompahgre Rd
O.C. CO 80467
Telephone: 970 736 8250

Copy of Report to:

Name:
Company:

E-mail:
Telephone:

Invoice to:

Name:
Company:
E-mail: INFO@Mcwater.org

Address: "
Telephone: "

Copy of Invoice to:

Name:
Company:
E-mail:

Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES NO

Are samples for SDWA Compliance Monitoring? Yes No

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: William Queen Sampler's Site Information State CO Zip code 80467 Time Zone MTN

*Sampler's Signature: William Queen

PROJECT INFORMATION ANALYSES REQUESTED (attach list or use quote number)

Quote #	PO#	Reporting state for compliance testing	Check box if samples include NRC licensed material?	SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers												
BO 56975		CO		EFF1	10/22 13:00	WW	3												

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Gregory Rowe	10/22/05 16:00	[Signature]	10/22/05 17:00

L97838 Chain of Custody

December 08, 2025

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L98294

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 13, 2025. This project has been assigned to ACZ's project number, L98294. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L98294. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 07, 2026. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:

Sample ID: EFF 1

ACZ Sample ID: **L98294-01**

Date Sampled: 11/13/25 13:40

Date Received: 11/13/25

Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								11/17/25 14:50	bls
Phosphorus, total	EPA 365.1								11/19/25 10:33	jqr

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	1050		*	umhos/cm	1	10	12/06/25 0:33	jck
Lab Filtration (0.45um filter)	SOPWC050	1							11/24/25 15:02	nls
Nitrate as N	Calculation (NO3NO2-NO2)		14.5			mg/L	0.3	1.5	12/08/25 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	15	14.9		*	mg/L	0.3	1.5	11/14/25 0:34	pjb
Nitrite as N	EPA 353.2	1	0.420		*	mg/L	0.01	0.05	11/14/25 0:20	pjb
Nitrogen, ammonia	EPA 350.1	1	13.6		*	mg/L	0.1	0.2	11/24/25 12:43	gfm
Nitrogen, organic	Calculation (TKN-NH3)		<2	U		mg/L	2	5	12/08/25 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	10	14.4		*	mg/L	2	5	11/23/25 1:55	pjb
Phosphorus, total	EPA 365.1	20	6.20		*	mg/L	0.2	1	11/20/25 14:21	ems
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		29			mg/L	0.1	0.5	12/08/25 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L98294**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98294-01	WG625357	Conductivity @25C	SM 2510 B-2011	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
	WG624029	Nitrate/Nitrite as N	EPA 353.2	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N	EPA 353.2	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
			EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			EPA 353.2	ZU	Analysis date/time precedes filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG624698	Nitrogen, ammonia	EPA 350.1	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
	WG624643	Nitrogen, total Kjeldahl	EPA 351.2	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
			EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG624532	Phosphorus, total	EPA 365.1	QT	Sample(s) collected and received same day on ice. Sample temperature deemed acceptable (40 CFR Part 136.6 Table II Footnote 16)(2016 TNI Std V1M4 Sec 1.7.4.a.i)
			EPA 365.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Morrison Creek Water District

ACZ Project ID: **L98294**

No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L98294
 Date Received: 11/13/2025 16:10
 Received By:
 Date Printed: 11/14/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA46778	13.6	<=6.0	15	Yes

Ice Present? Yes - Wet ice was present in the shipment container(s).

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Morrison Creek Water District

ACZ Project ID: L98294
Date Received: 11/13/2025 16:10
Received By:
Date Printed: 11/14/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc. L98294

CHAIN of CUSTODY

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report to:

Name: William Queen
Company: Morrison Creek Metro
E-mail: Bill@Mcwaters.org

Address: 24490 Uncompahgre Rd
Telephone: 970-736-8250

Copy of Report to:

Name:
Company:

E-mail:
Telephone:

Invoice to:

Name:
Company:
E-mail: J.AFO@Mcwaters.org

Address:
Telephone:

Copy of Invoice to:

Name:
Company:
E-mail:

Address:
Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO []

Are samples for SDWA Compliance Monitoring? Yes [] No [X]

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: William Queen Sampler's Site Information State CO Zip code 80467 Time Zone MTN

Sampler's Signature: [Signature]

PROJECT INFORMATION

ANALYSES REQUESTED: attach list or use quote number

Quote #: B0 56977
PO#:
Reporting state for compliance testing: CO
Check box if samples include NRC licensed material?

Table with columns for Sample Identification, Date/Time, Matrix, and # of Containers. Row 1: EFF1, 11-13 13:40, WW, 3

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY: [Signature] DATE/TIME: 15:48 11/13/25 RECEIVED BY: [Signature] DATE/TIME: 11/13/25 15:49

98294 Chain of Custody

January 16, 2026

Report to:
Bill Queen
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Bill to:
Morrison Creek W+S District
Morrison Creek Water District
24490 Uncompahgre Road
Oak Creek, CO 80467

Project ID:
ACZ Project ID: L98928

Bill Queen:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 29, 2025. This project has been assigned to ACZ's project number, L98928. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L98928. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 15, 2026. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray
Madeleine Murray has reviewed
and approved this report.



Morrison Creek Water District

Project ID:
Sample ID: EFF1

ACZ Sample ID: **L98928-01**
Date Sampled: 12/29/25 13:40
Date Received: 12/29/25
Sample Matrix: Waste Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Nitrogen, total Kjeldahl	EPA 351.2								01/05/26 14:27	bls
Phosphorus, total	EPA 365.1								01/07/26 11:04	gfm/bls

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Conductivity @25C	SM 2510 B-2011	1	925			umhos/cm	1	10	01/13/26 10:54	jck
Lab Filtration (0.45um filter)	SOPWC050	1							12/30/25 9:35	nls
Nitrate as N	Calculation (NO3NO2-NO2)		14.3			mg/L	0.2	1	01/15/26 0:00	calc
Nitrate/Nitrite as N	EPA 353.2	10	14.7		*	mg/L	0.2	1	12/31/25 0:13	pjb
Nitrite as N	EPA 353.2	1	0.446		*	mg/L	0.01	0.05	12/30/25 23:52	pjb
Nitrogen, ammonia	EPA 350.1	1	8.54		*	mg/L	0.1	0.2	01/07/26 16:08	gfm
Nitrogen, organic	Calculation (TKN-NH3)		2	B		mg/L	1	2.5	01/15/26 0:00	calc
Nitrogen, total Kjeldahl	EPA 351.2	5	10.9		*	mg/L	1	2.5	01/07/26 1:50	pjb
Phosphorus, total	EPA 365.1	10	4.73			mg/L	0.1	0.5	01/08/26 15:08	gfm
Total Nitrogen, calc	Calculation (NO3NO2+TKN)		26			mg/L	0.1	0.5	01/15/26 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Morrison Creek Water District

ACZ Project ID: **L98928**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98928-01	WG626611	Nitrate/Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N	EPA 353.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG626948	Nitrogen, ammonia	EPA 350.1	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG626874	Nitrogen, total Kjeldahl	EPA 351.2	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Morrison Creek Water District

ACZ Project ID: **L98928**



No certification qualifiers associated with this analysis

Morrison Creek Water District

ACZ Project ID: L98928
 Date Received: 12/29/2025 15:25
 Received By:
 Date Printed: 12/30/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		X	

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? ¹	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA47128	6	<=6.0	15	Yes

Ice Present? Yes - Wet ice was present in the shipment container(s).

Was this a domestic shipment?

No - The samples were hand delivered on ice on the day collected.

Morrison Creek Water District

ACZ Project ID: L98928

Date Received: 12/29/2025 15:25

Received By:

Date Printed: 12/30/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

APPENDIX B – USGS ALTERNATIVE METHOD FOR NUTRIENT LOAD



Alternative Method for Nutrient Loads Across Stagecoach Reservoir

An additional method to calculate the Phosphorus and Nitrogen loads across Stagecoach Reservoir was based upon a larger watershed area of Stagecoach Reservoir between United States Geological Survey (USGS) upstream and downstream sampling points.

Method 2: USGS Sampling Points

The USGS estimated monthly loads and annual yields based on normalized hydrographs of suspended sediment, Kjeldahl Nitrogen, and total Phosphorus for several monitoring sites in the Upper Yampa River Basin for water years 2010–2018.¹ Two (2) USGS sampling points and the surrounding topography were analyzed to produce the direct watershed to Stagecoach Reservoir. This watershed can be utilized to estimate the existing Phosphorus and Nitrogen loads across Stagecoach Reservoir. It is important to note that this analysis uses instream concentrations, which does not account for sub-flow to the reservoir from the Yampa River alluvium. As a result, this artificially decreases the estimate of existing conditions of watershed loading, and therefore artificially increases the projected calculations of nutrient loading to the reservoir.

Phosphorus

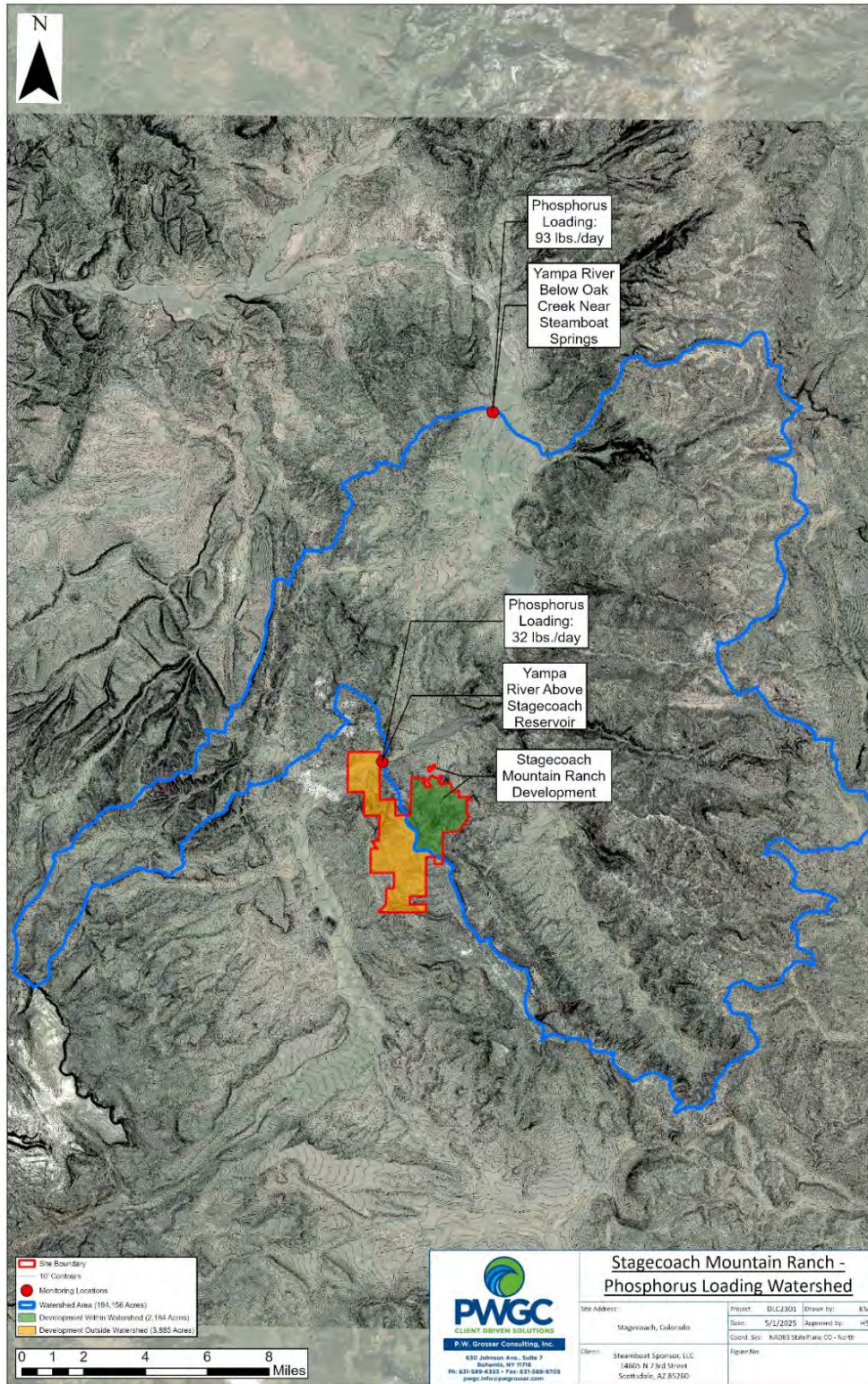
The annual total Phosphorus load at the Yampa River above Stagecoach Reservoir site is approximately 5.9 tons per year (32 lbs./day) and the annual total Phosphorus load at the Yampa River below Oak Creek near Steamboat Springs site, which is located downstream of SMR, is approximately 17 tons per year (93 lbs./day) .

Table 1 – Estimated monthly and annual loads and annual yields, based on normalized hydrographs, of suspended sediment for 5 sites, and Kjeldahl nitrogen and total phosphorus for 7 sites listed in downstream order in the Upper Yampa River Basin, Colorado (CO), for water years 2010–18, and changes in annual loads at Yampa River sites (Excerpted Portion of Table 6)

USGS site name	Load, in tons												Annual	Change ^a	Annual Yield, in tons per square mile
	Month														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec			
Total phosphorus															
Yampa River above Stagecoach Reservoir, CO	0.11	0.12	0.37	0.90	1.4	0.94	1.0	0.46	0.19	0.19	0.14	0.11	5.9	NA	0.03
Yampa River below Oak Creek near Steamboat Springs, CO ^b	0.33	0.44	1.1	3.0	5.8	3.7	0.90	0.48	0.42	0.48	0.41	0.32	17	11	0.05

¹ <https://pubs.usgs.gov/sir/2021/5016/sir20215016.pdf>

Figure 1 – Phosphorus Loading in USGS Sampling Points Contributing Watershed



We warrant that the data provided in this drawing are accurate to the best of our knowledge as of the date of this drawing. We do not warrant the accuracy of the data provided by third parties. We do not warrant the accuracy of the data provided by third parties. We do not warrant the accuracy of the data provided by third parties.



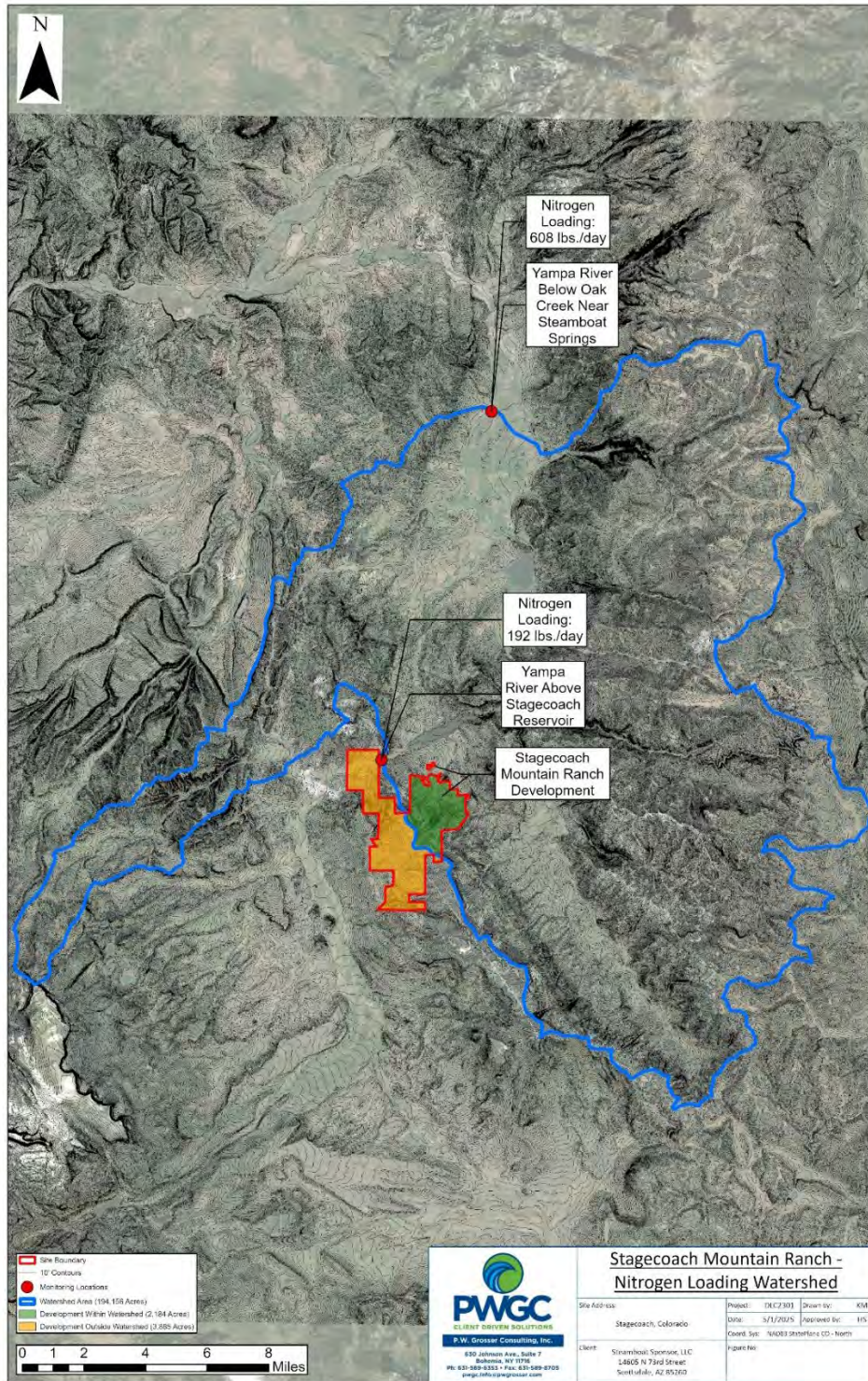
Nitrogen

In the same manner as above with Phosphorus loading, the existing Nitrogen load across Stagecoach Reservoir can be determined utilizing the estimated annual yields at the same USGS sampling points in the Upper Yampa River Basin. As the same sampling points were used, the same watershed area was produced from the surrounding topography. Specifically, the annual total Nitrogen loads at the monitoring points upstream and downstream of the Stagecoach Reservoir are 35 tons per year (192 lbs./day) and 111 tons per year (608 lbs./day), respectively (see Table 2 and Figure 2 below). As such, the increase in Nitrogen across Stagecoach Reservoir is currently approximately 416 lbs./day (i.e., 608 minus 192). The 11 lbs./day of Nitrogen from the Morrison Creek WWTF represents an estimated 3 percent of the total Nitrogen across the Reservoir.

Table 2 – Estimated monthly and annual loads and annual yields, based on normalized hydrographs, of suspended sediment for 5 sites, and Kjeldahl nitrogen and total phosphorus for 7 sites listed in downstream order in the Upper Yampa River Basin, Colorado (CO), for water years 2010–18, and changes in annual loads at Yampa River sites. (Excerpted Portion of Table 6)

USGS site name	Load, in tons												Annual	Change ^a	Yield, in tons per square mile
	Month														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec			
	Kjeldahl nitrogen														
Yampa River above Stagecoach Reservoir, CO	0.71	0.76	1.9	4.6	7.6	6.0	6.2	2.8	1.1	1.1	0.89	0.74	35	NA	0.17
Yampa River below Oak Creek near Steamboat Springs, CO ^b	2.5	2.8	5.9	16	34	24	6.4	4.0	3.9	4.7	3.9	2.8	111	77	0.30

Figure 2 – Nitrogen Loading in USGS Sampling Points Contributing Watershed



APPENDIX C – ALTERNATIVE METHODS FOR NUTRIENT LOADS IN STORMWATER

Alternative Methods for Nutrient Loads in Stormwater

Two (2) additional methods to calculate the Phosphorus and Nitrogen loads in stormwater are as follows: (1) based upon an estimate of Phosphorus in stormwater per square kilometer in the State of Colorado generated by the USEPA; and (2) based upon the watershed area of Stagecoach Reservoir between the upstream and downstream sampling points.

Method 2: USEPA

Phosphorus

In order to calculate the proposed Phosphorus load from stormwater, the total Phosphorus yield for Colorado was used. According to the USEPA, the estimated total Phosphorus, aggregated yield, for Colorado is 17.51 kg/km², as predicted by the 2012 regional USGS Spatially Referenced Regression On Watershed Attributes (SPARROW) models.¹ As indicated in Section 1.1 of the report, the subject property consists of approximately 6,040 acres, or 24.4 km².

$$\begin{aligned}x \text{ lbs./day} &= \frac{17.5 \text{ kg}}{\text{km}^2} (24.4 \text{ km}^2) \left(\frac{2.2 \text{ lbs.}}{\text{kg}}\right) \\ &= 2.6 \text{ lbs./day}\end{aligned}$$

As such, the preliminary Phosphorous load in stormwater from Method 2 resulting from the proposed SMR is approximately 2.6 lbs./day.

Nitrogen

According to the USEPA, the estimated total Nitrogen, aggregated yield, for Colorado is 123.5 kg/km².²

$$\begin{aligned}x \text{ lbs./day} &= \frac{123.5 \text{ kg}}{\text{km}^2} (24.4 \text{ km}^2) \left(\frac{2.2 \text{ lbs.}}{\text{kg}}\right) \\ &= 18.2 \text{ lbs./day}\end{aligned}$$

As such, the preliminary Nitrogen load in stormwater from Method 2 resulting from the proposed SMR would be approximately 18.2 lbs./day.

¹ <https://www.epa.gov/nutrientpollution/estimated-total-nitrogen-and-total-phosphorus-loads-and-yields-generated-within>

² <https://www.epa.gov/nutrientpollution/estimated-total-nitrogen-and-total-phosphorus-loads-and-yields-generated-within>

Method 3: Watershed Between USGS Sampling Points Analysis

Phosphorus

As the USEPA Phosphorus estimation is based upon an average for the entire state of Colorado, the sampling points generated by the USGS discussed in Section 4.2.1 of the report were utilized to obtain a more accurate calculation for the area. The contributing watershed area between the *Yampa River above Stagecoach Reservoir* and *Yampa River below Oak Creek near Steamboat Springs* sampling points is approximately 194,156± acres (see Figure below). The increase in Phosphorus across the Stagecoach Reservoir is approximately 61 lbs./day. As the Morrison Creek WWTP currently discharges 4.1 lbs./day of Phosphorus to the Stagecoach Reservoir from wastewater, 56.9± lbs./day is assumed to be from runoff. Utilizing these values, the preliminary stormwater Phosphorus load from the SMR property can be calculated.

Development within the USGS Sampling Points Watershed Area

Approximately 2,184 acres of the proposed SMR would be developed within this watershed area. As such, the preliminary Phosphorus loading from stormwater calculated below (i.e., 0.6 lbs./day) would contribute to surface waterbodies downstream of the *Yampa River Above Stagecoach Reservoir* sampling point.

$$\begin{aligned}x \text{ lbs./day} &= \frac{56.9 \text{ lbs./day}}{194,156 \text{ acres}} (2,184 \text{ acres}) \\ &= \mathbf{0.6 \text{ lbs./day}}\end{aligned}$$

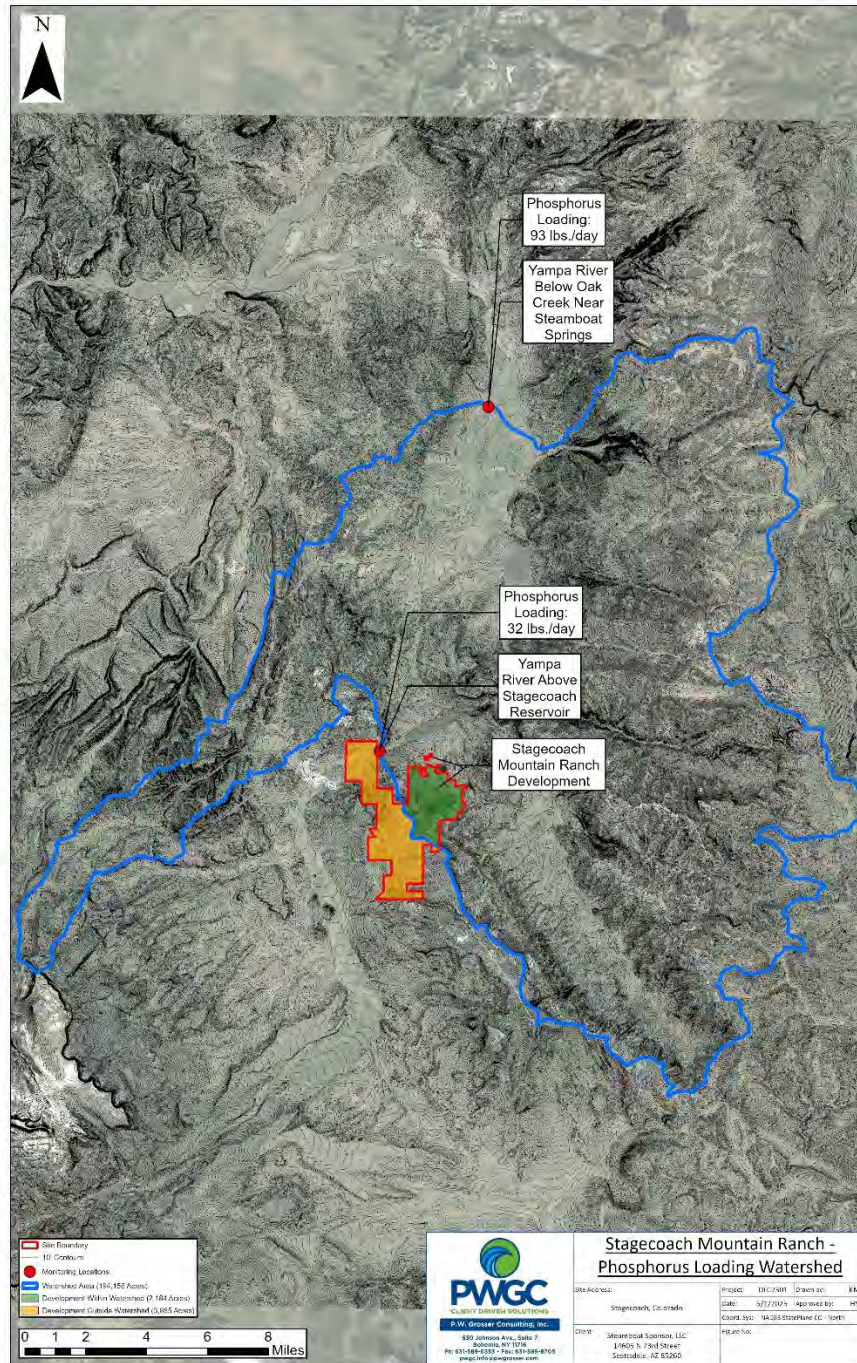
Development outside the USGS Sampling Points Watershed Area

Assuming the same ratio of Phosphorus loading to the watershed area, the Phosphorus loading for development outside of the watershed area, which includes approximately 3,885 acres of the proposed SMR, would be 1.1 lbs./day. This represents the amount of Phosphorus that would contribute to surface waterbodies upstream of the *Yampa River Above Stagecoach Reservoir* sampling point.

$$\begin{aligned}x \text{ lbs./day} &= \frac{56.9 \text{ lbs./day}}{194,156 \text{ acres}} (3,885 \text{ acres}) \\ &= \mathbf{1.1 \text{ lbs./day}}\end{aligned}$$

Based on the above calculations, the total preliminary Phosphorus load from stormwater for the proposed SMR from Method 3 would be approximately 1.7 lbs./day, with 0.6± lbs./day contributing directly to Stagecoach Reservoir and other downstream surface waterbodies.

Phosphorus Loading in Contributing Watershed



Nitrogen

The contributing watershed area between the *Yampa River above Stagecoach Reservoir* and *Yampa River below Oak Creek near Steamboat Springs* sampling points is approximately 194,156± acres. As indicated above, the increase in Nitrogen across the Stagecoach Reservoir is approximately 416 lbs./day (see Figure below). As the Morrison Creek WWTP discharges 26 lbs./day of Nitrogen to the Stagecoach Reservoir from wastewater, 390± lbs./day is assumed to be from runoff. Utilizing these values, the preliminary stormwater Nitrogen load from the proposed SMR can be calculated.

Development within the USGS Sampling Points Watershed Area

Approximately 2,184 acres of the proposed SMR would be developed within this watershed area. As such, the preliminary Nitrogen loading from stormwater calculated below (i.e., 4.4 lbs./day) would contribute to surface waterbodies downstream of the *Yampa River Above Stagecoach Reservoir* sampling point.

$$\begin{aligned}x \text{ lbs./day} &= \frac{390 \text{ lbs./day}}{194,156 \text{ acres}} (2,184 \text{ acres}) \\ &= \mathbf{4.4 \text{ lbs./day}}\end{aligned}$$

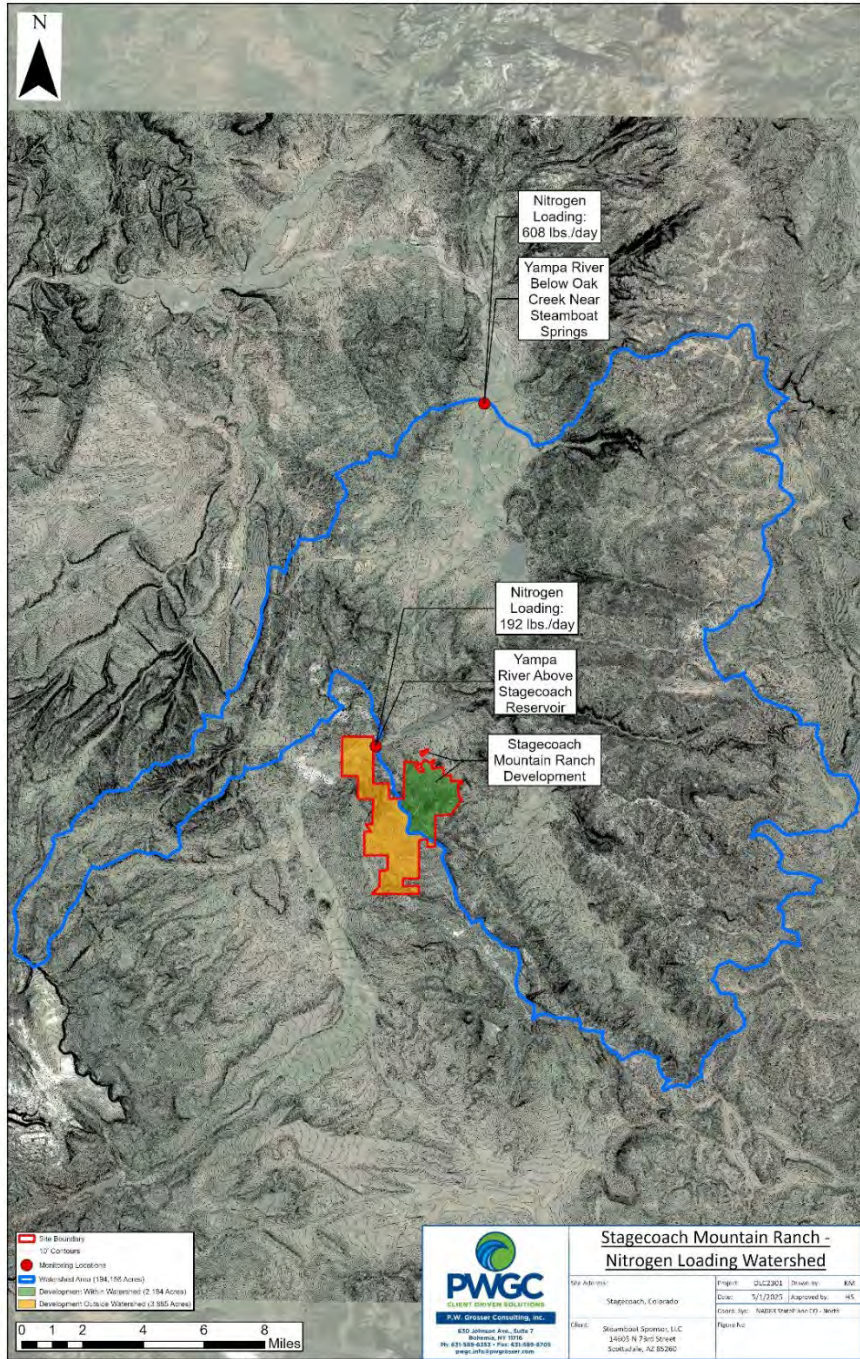
Development outside the USGS Sampling Points Watershed Area

Assuming the same ratio of Nitrogen loading to the watershed area, the Nitrogen loading for development outside of the watershed area, which includes approximately 3,885 acres of the proposed SMR, would be 7.8 lbs./day. This represents the amount of Nitrogen that would contribute to surface waterbodies upstream of the *Yampa River Above Stagecoach Reservoir* sampling point.

$$\begin{aligned}x \text{ lbs./day} &= \frac{390 \text{ lbs./day}}{194,156 \text{ acres}} (3,885 \text{ acres}) \\ &= \mathbf{7.8 \text{ lbs./day}}\end{aligned}$$

Based on the above calculations, the total preliminary Nitrogen load from stormwater for the proposed SMR from Method 3 would be approximately 12.2 lbs./day, with 4.4 lbs./day contributing directly to Stagecoach Reservoir and other downstream surface waterbodies.

Nitrogen Loading in Contributing Watershed



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EXECUTIVE SESSIONS

Executive session under CRS § 24-6-402(4)(b) to discuss legal issues on Water Resumes, Water Cases, Contract Negotiations and _____. Mere presence or participation of an attorney at an executive session is not sufficient to satisfy the requirements of CRS § 24-6-402(4)(b). Executive sessions to discuss legal matters are not recorded.

Executive session under CRS § 24-6-402(4)(e)(I) for the purpose of determining positions relative to matters that may be subject to negotiations; developing strategy for negotiations; and instructing negotiators with respect to _____. This session will be recorded, and a copy of the recording maintained for not less than 90 days.

BOARD ACTIONS IN REGARD TO EXECUTIVE SESSION

