SAN JUAN COUNTY, COLORADO BOARD OF COMMISSIONERS MEETING AGENDA

May 26, 2021

Due to the continuing COVID-19 emergency, San Juan County meetings will be conducted in a hybrid virtual/in-person format. All persons with appointments scheduled on the agenda may meet in person or via zoom. If you have been vaccinated, you are not required to wear a mask. If you have not been vaccinated, we strongly recommend that you wear a mask. We encourage community members to continue to participate via zoom. The information necessary to connect to the public meeting is listed below.

CALL TO ORDER: 6:30 P.M.

BOCC Meeting Minutes for May 12, 2021

APPOINTMENT

- 6:35 P.M. Tommy Wipf, Veterans Officer
- 7:00 P.M. Marcel Gaztambide-Outstanding Waters Designation
- 7:30 P.M. Marc Kloster-Courthouse Clock Chimes
- 7:45 P.M. Charlie Smith-Water Updates
- 8:00 P.M. OHV Discussion

CORRESPONDENCE

EPA – Site Update Pride of the West Mill Colorado Tire Recyclers, LLC DeAnne Gallegos – Iron Horse Bicycle Race Update Linda Test – OHV Parking

OLD BUSINESS

BLM Travel Management Petition of Stay Denied

NEW BUSINESS

CDPHE STEPP Contract 2019*131 AMD#1 Public Comment Commissioner and Staff Reports

Next Regular Meeting – June 9, 2021 8:30 A.M.

Join Zoom Meeting https://zoom.us/j/92136473203

Meeting ID: 921 3647 3203 One tap mobile +16699006833,,92136473203# US (San Jose) +12532158782,,92136473203# US (Tacoma)

Dial by your location +1 669 900 6833 US (San Jose) +1 253 215 8782 US (Tacoma) +1 346 248 7799 US (Houston) +1 646 876 9923 US (New York) +1 301 715 8592 US (Germantown) +1 312 626 6799 US (Chicago) Meeting ID: 921 3647 3203

SAN JUAN COUNTY BOARD OF COMMISSIONERS REGULAR MEETING WEDNESDAY, MAY 12, 2021 AT 8:30 A.M.

Call to Order: The meeting was called to order by Chairman Scott Fetchenhier. Present were Commissioners Ernie Kuhlman and Austin Lashley, and Administrator William Tookey. The meeting was held with the Commissioners and Administrator present in the Commissioner's Room and the general public attended via Zoom.

Payment of Bills: Commissioner Lashley moved to authorize payment of the warrants as presented. Commissioner Kuhlman seconded the motion. The motion passed unanimous.

Minutes: Commissioner Kuhlman moved to approve the minutes of April 28, 2021 as presented. Commissioner Kuhlman seconded the motion. The motion passed unanimous.

Public Health Director Becky Joyce, Emergency Manager Jim Donovan and Public Information Officer DeAnne Gallegos were present to provide the Commissioners with a COVID-19 update. San Juan County currently has the highest percentage of citizens vaccinated in the state. The public health order requiring the use of masks will expire on May 15, 2021. It was the consensus of the Commissioners to allow the County Public Health Order to expire and for San Juan County to alight with the State of Colorado's Public Health Order.

Social Services Director Martha Johnson was present to provide the Commissioners with a monthly update. Commissioner Kuhlman moved to certify the 2/28/21 Transmittal in the amount of \$20,857.65. Commissioner Lashley seconded the motion. The motion passed unanimous.

Clark Anderson of Community Builders was present to provide the Commissioners with an update on the Silverton/San Juan County visioning process.

Kimmet Holland and Tyler George of the Ambulance Association were present to provide the Commissioners with an update on the Ambulance Association. Kimmet Holland is retiring as the Ambulance Association's director and Tyler George will be appointed to fill the position. Commissioner Kuhlman moved to accept Kimmet's resignation with regrets. Commissioner Lashley seconded the motion. The motion passed unanimous.

Kimmet will also be resigning his position as San Juan County's representative to the SWRETAC Board. Commissioner Lashley moved to appoint Tyler George to be San Juan County's representative on the SWRETAC Board. Commissioner Kuhlman seconded the motion. The motion passed unanimous.

Kimmet and Tyler requested that the Commissioners proclaim May 16th to May 22nd as Annual EMS Week in recognition of Emergency Medical Services. Commissioner Lashley moved to proclaim EMS week as requested. Commissioner Kuhlman seconded the motion. The motion passed unanimous. Holland and George requested that the County renew the licenses for the Association's ambulances. Commissioner Lashley moved to approve the annual licenses for the Ambulance Association as presented. Commissioner Kuhlman seconded the motion. The motion passed unanimous. Kirsten Brown of DRMS was present to provide the Commissioners with an update on the proposed reclamation of Campground 7 aka Eclipse Smelter. She also discussed the forfeited bond and potential reclamation work of the Howardsville mill site.

The Commissioners discussed the BLM Silverton Travel Management Plan concerning the proposed construction of a single-track trail in Minnie Gulch. The County had received BLM's Opposition for the Petition to Stay the construction until the appeal was determined. The County also received a CORA request from Holsinger Law, LLC representing the Trails Preservation Alliance for any documentation from the County concerning the BLM Silverton Travel Management Plan. It was also the consensus of the Commissioners to send a letter to Colorado State Director Jamie Connell requesting that the director rescind the decision to allow the Minnie Gulch motorized trail authorization in the Silverton Travel Management Plan

Having no further business, the meeting was adjourned at 12:36 P.M.

Scott Fetchenhier, Chairman

Ladonna L. Jaramillo, County Clerk

COLORADO'S OUTSTANDING WATERS DESIGNATIONS HELP SAFEGUARD WATER QUALITY

Outstanding Waters

Outstanding Waters (OW) is a designation awarded to reaches of streams, rivers or other bodies of water with high water quality and exceptional recreational or ecological significance that are deemed worthy of increased protections by the State of Colorado. The intent of the designation is to preserve the high quality of the designated reaches for future generations. For a stream or part of a stream to qualify, it must meet specific water-quality criteria gathered across a wide range of measures.

Protection of Colorado's highest quality streams is vital to our state and our way of life. Clean water is not only critical for drinking water for our communities, but also for habitat for fish and other wildlife, farming and ranching, recreation and the long-term economic development of Colorado's towns.

A river or water body that is designated as an OW receives special water quality protections within and upstream of the reach, protecting it from long-term degradation, that is, from deterioration of existing water quality conditions.

An OW designation is awarded through the Water Quality Control Commission (WQCC) of the Colorado Department of Public Health and Environment (CDPHE): Designation occurs through a three-year rulemaking hearing process that includes three public hearings.¹



How are Outstanding Waters designated?

Any person may nominate any state water for designation as an OW.

OW nominations are evaluated by basin on a rotating triennial (everythree-years) review schedule by the CDPHE's WQCC. The process to propose an OW nomination takes multiple years and includes substantial water sampling across all seasons, rigorous data analysis and evaluation, extensive public outreach, and three public hearings where public comment is encouraged.

Pictured Right: Hermosa Creek – designated OW in 2009



[1] https://cdphe.colorado.gov/wqcc-public-participation

What does an Outstanding Waters designation do?

An OW designation protects a defined reach of a stream, river or lake that has a very high level of existing water quality from future degradation of that water quality. Waters designated as OW have to be maintained and protected at their existing quality. Only short-term degradation of existing quality is allowed and only for activities that result in long-term ecological or water quality benefit or clear public interest.

Does Outstanding Waters Designation Affect Water Rights?

No. OW is about water quality; it does not affect water rights, which are about flow. OWs offer a unique, state-level designation (within the legal framework of the federal Clean Water Act) to protect existing water quality, while allowing for the exercise of valid water rights.

Are Preexisting Activities Such As Grazing Affected?

OW protections only prevent new or increased sources of pollution in designated streams. Preexisting uses, such as grazing and recreation, as well as Water Quality Control Division (WQCD) permitted activities can continue at the levels and intensities in place at the time of designation. In other words, as long as a preexisting use does not increase pollution in a stream, OW would not limit that use. If a use (such as grazing or recreation) does not currently require a permit from WQCD, that would not change under an OW designation – no new permit would be required.

Are New, Long-Term Activities Allowed Near Or Along Outstanding Waters Reaches?

New activities may also take place so long as they do not result in any degradation of the high levels of water quality of the given reach (relative to the quality at the time of OW designation).

Are Short-Term, Temporary Activities Allowed?

Short-term water quality degradation of a waterbody designated as an OW may be allowed to occur for activities that result in long-term ecological or water quality benefit or clear public interest– for example, for restoration of a campground- so long as that degradation is minimized and water quality returns to its prior high-quality condition after the activity is completed.



Can an Outstanding Waters designation go through private land?

Yes. OW designations can go through private land as long as the designation criteria for OW are met. An OW designation prohibits any new activity or any expanded activity that could degrade water quality below designated levels for a given reach, ensuring clean water for rivers flowing through private property.

How are downstream water users affected by an Outstanding Waters designation?

Downstream water users are not impacted by an OW designation other than benefiting from the protection and delivery of high-quality water downstream.

OUTSTANDING WATERS – HOW ARE THEY DESIGNATED?

Outstanding Waters (OW) is a designation awarded to reaches of streams, rivers or other bodies of water with high water quality and exceptional recreational or ecological significance that are deemed worthy of increased protections by the State of Colorado. The intent of the designation is to prevent degradation, thus preserving existing high water quality for future generations.

An OW designation is made through the Water Quality Control Commission (Commission) in the Colorado Department of Public Health and Environment (CDPHE). Designations are made as part of the Commission's triennial rulemakings held on a rotating basis for basins around the state; each basin rulemaking process is spread over three calendar years from scoping, through issues formulation, to final action.

To qualify as an OW, a waterbody must meet three key criteria:



Waters must constitute an outstanding natural resource, with "exceptional recreational or ecological significance" and not modified by human activities in ways that substantially detract from their natural resource values. Examples include Gold Medal trout fisheries, native cutthroat trout recovery waters, waters with outstanding opportunities for recreation such as boating, swimming, and fishing, as well as waters within national parks, monuments, wildlife refuges, and wilderness areas.



Waters must require protection in addition to that provided by water quality classifications, standards, and protections from the CDPHE. For example, the Commission has recognized the need for native trout to have water quality maintained at existing high levels in light of those species' sensitivity to water pollution. Similarly, wilderness areas require protection at their existing high-quality levels to maintain that "untrammeled by man" wilderness quality.





Waters must be equal to or better than the water quality standards for 12 key parameters to support aquatic life, recreation, and/or domestic water supply uses.

These parameters are:

pH affects many chemical and biological processes in surface water. For example, at low pH metals are typically more soluble and more toxic to aquatic life.

Nutrients are essential for living organisms and exist in different forms that naturally cycle through the atmosphere, terrestrial and aquatic ecosystems. Excess nutrients, however, can adversely affect aquatic habitat and become toxic to sensitive aquatic species. Nutrients used in evaluating potential OWs are:

• chronic ammonia

Source: 5 CCR 1002-31.8 (2)(a)

• nitrate

E. coli is a group of bacteria that have the

potential to cause sickness and disease; excessive E. coli in surface water could harm humans that inadvertently swallow water while recreating.

Dissolved oxygen (DO) is a

measure of oxygen available to aquatic organisms; some aquatic organisms require abundant DO while others are adapted to survive with less.

• chronic selenium

• chronic silver

• chronic zinc

Metals and other trace elements are found in surface water from natural sources such as the weathering of rock, but can also be elevated due to disturbances such as wildfire or historic mining, causing harmful impacts on aquatic life. Metals measured in evaluating potential OWs are:

- chronic cadmium
- chronic copper
- chronic lead
- chronic manganese
- Representative data across multiple seasons should be sampled to demonstrate that water quality is indeed equal to or better than these water quality requirements.

Target Analyte	Fraction Evaluated	Use classified by Water Quality Control Division	Water quality standard	Assessment statistic		
ρН	N/A	Aquatic Life	6 5 - 9 0	15 th - 85 th percentile		
Dissolved Oxygen	N/A	Aquatic Life	6.0 / 7.0 mg/l	15 th percentile		
E. coli	N/A	Recreation	1267100ml	Geometric mean		
Ammonia	Total	Aquatic Life - Chronic	pH and temperature dependent standard	85 th percentile		
Nitrate or Nitrate-Nitrite	Total	Domestic Water Supply Use	10 mg/l	85 th percentile		
Cadmium	Dissolved	Aquatic Life - Chronic	Hardness-based standard	0.01		
Copper	Dissolved	Aquatic Life - Chronic	Hardness-based standard	85 th percentile or		
Lead Dissolved		Aquatic Life - Chronic	Hardness-based standard	exceedances in less than 159 of samples		
Manganese	Dissolved	Aquatic Life - Chronic	Hardness-based standard	or Sampies		
Selenium	Dissolved	Aquatic Life - Chronic	4.6 ug/	85 th percentile		
Silver	Dissolved	Aquatic Life - Chronic	Hardness-based standard	85 th percentile or		
Zinc	Dissolved	Aquatic Life - Chronic	Hardness-based standard	exceedances in less than 159 of samples		
		Additional parameter.	s			
Water temperature	N/A	N/A	N/A	N/A		
Calcium	Dissolved	N/A	N/A	N/A		
Magnesium	Dissolved	N/A	N/A	N/A		
Arsenic	Total	Domestic Water Supply Use	0.02 ug/l	50 th percentile		

Water quality parameters required for Outstanding Waters consideratior





Southwest Colorado Outstanding Waters water quality assessment of candidate reaches



March 2021

Prepared For: PEW Charitable Trusts and Colorado Trout Unlimited Publication Date: March, 2021
Cover Photo Credit: Scott Roberts
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Contents

Introduction1
Methods2
1 Monitoring Locations and Frequency of Sampling
2 Field Survey Methodology
.3 Laboratory Methods
4 Data Analysis 3 2.4.1 Existing data 3 2.4.2 Water Quality Standards 3 2.4.3 Laboratory Detection 3
esults4
1 Water Quality Conditions and Standards. 4 3.1.1 pH
.2 Summary
ecommendations6
1 Recommendations and Sampling Implications 6 4.1.1 Tabeguache - dissolved oxygen 7 4.1.2 Coal Creek - E. coli 7 4.1.3 Stoner Creek - E. coli 7 4.1.4 Cascade Creek - Lime Creek and upper and lower Cascade monitoring locations 7 4.1.5 Big Dominguez Creek - E. coli 7 4.1.6 Upper Taylor River - arsenic 8 4.1.7 Escalante Creek - arsenic 8 4.1.8 Waterfall Creek - benthic macroinvertebrates 8 4.1.9 All sites - benthic macroinvertebrates 8

3. Works Cited

4. Tables

Appendix A: Water quality sampling protocol

Appendix B: Water quality results from OW candidate monitoring locations - "scorecard" for each location

Appendix C: Assessment of water quality results using CDPHE assessment statistics

List of Tables

Table 1. Water quality parameters required for Outstanding Waters consideration	2
Table 2. Sampling locations in the San Juan Basin	3
Table 3. Sampling locations in the Gunnison Basin	4
Table 4. Analytical method for water quality parameters	5

Abbreviations and Acronyms

CDPHEColorado Department of Public Health and EnvironmentMSIMountain Studies InstituteOWOutstanding Waters

1. Introduction

In September 2019, a coalition of local, state, and national organizations was formed around a common goal of increasing protections for Colorado's freshwater ecosystems. This coalition comprises the following organizations: American Rivers, American Whitewater, Conservation Colorado, High Country Conservation Advocates, The Pew Charitable Trusts, San Juan Citizens Alliance, Trout Unlimited & Colorado Trout Unlimited, and Western Resource Advocates. Mountain Studies Institute (MSI), based in the San Juan Mountains of Colorado, is a non-advocacy organization committed to providing the best available science to decision makers and was contracted to provide expertise in water quality and aquatic life to the coalition.

The current focus of the coalition is to evaluate and propose surface water reaches in Colorado's San Juan and Gunnison Basins for Outstanding Waters (OWs) designations during the state's triennial review process. The coalition's objectives include: identify priority waterways in these regions; conduct the necessary water quality sampling and testing; involve appropriate stakeholders and build community support for protection of these waters; and to engage with relevant agencies to craft a precise, compelling proposal for protecting Outstanding Waters in these regions.

Outstanding Waters designations offer the highest level of water quality protection under Colorado state regulations to water bodies of an outstanding state or national resource (CDPHE 2018). In order for water bodies to receive such a designation, the State of Colorado Water Quality Control Commission requires three main criteria be met:

- 1) The waters constitute an outstanding natural resource, based on the water body being a significant attribute or have exceptional recreational or ecological significance not modified by human activities in a manner that detracts from their value as a natural resource.
- 2) The waters require additional protection than already provided by water quality classifications, standards, and protections from the Colorado Department of Public Health & Environment (CDPHE).
- 3) Existing water quality must be in attainment of water quality standards for twelve parameters as specified by CDPHE Regulation 31 (CDPHE 2018). We present the twelve required water quality parameters and their associated specified standards in Table 1.

2. Methods

2.1 Monitoring Locations and Frequency of Sampling

Monitoring locations were selected based on input from numerous organizations and agencies who shared their regional expertise and priorities through a series of collaborative meetings (Table 2-3 and in ArcGIS Online Map: <u>https://arcq.is/1KzD81</u>). In the monitoring site selection process, we choose sites that are representative of the spatial variability that may occur in the candidate watersheds. In some cases, that necessitated establishing more than one monitoring site in one watershed to capture potential differences in water quality between tributaries.

We plan to sample each location four times a year so that data are representative of variable hydrologic conditions including:

- 1. Feb/March: Pre-runoff winter baseflow
- 2. May/June: Peak Spring Runoff
- 3. July: Descending limb of spring runoff
- 4. Oct: Fall baseflow

When certain candidate streams are seasonally dry (e.g., Potter Creek and Roubideau Creek), we will adjust our sampling dates to ensure that these streams are sampled at numerous times throughout their individual annual hydrographs.

Thus far, our coalition has conducted two sampling events: the summer and fall of 2020. Winter baseflow sample collection will occur between January and March of 2021.

2.2 Field Survey Methodology

Sampling events are coordinated and conducted by staff and volunteers with the Mountain Studies Institute, Trout Unlimited, Dolores River Anglers, San Juan Citizens Alliance, American Whitewater, and High Country Conservation Advocates. Measurements of pH and dissolved oxygen are collected instantaneously in the field using a probe such as a YSI Pro-Plus or equivalent. Discrete water grab samples are appropriately persevered and analyzed for additional parameters in laboratories. For applicable analytes, sampler collectors utilize pre-preserved bottles and filter through a 0.45 membrane syringe filter (EPA 2014). To ensure consistency of methodology and data quality, field blanks and duplicate samples are collected at a frequency of one blank and one duplicate sample for every ten samples (i.e., 10%).

Detailed sampling protocols are outlined in Appendix A.

2.3 Laboratory Methods

Samples are analyzed by Green Analytical Laboratory, San Juan Basin Public Health Department in Durango Colorado, and the City of Gunnison Water Lab in Gunnison, CO. The analytical list includes analytes required by CDPHE for Outstanding Waters consideration (Table 1 and 4). Additionally, samples are analyzed for magnesium and calcium in order to calculate hardness. Hardness is a necessary component of water quality standards for several metals.

2.4 Data Analysis

2.4.1 Existing data

MSI obtained existing water quality and benthic macroinvertebrate data for the selected locations from the Environmental Protection Agency's Water Quality Data Portal (also known as WQX), Colorado Data Sharing Network, and other sources. After evaluation of available historical data, it was evident that additional data collection efforts were necessary in order to demonstrate attainment of the twelve required parameters for OW consideration.

2.4.2 Water Quality Standards

The CDPHE Water Quality Control Commission (WQCC) establishes water quality standards to protect the use of surface waters for several designated uses such as aquatic life, domestic water supply, agriculture, and recreation. Water quality standards are either fixed numerical values or calculated based on additional water quality parameters such as hardness and pH. Following CDPHE Regulation 31 guidelines, we compared measured concentrations of water quality parameters to CDPHE water quality standards in order to assess whether water quality is sufficient for the protection of aquatic life class 1, recreation class P, and (for nitrate) domestic water supply uses (Table 1) (CDPHE 2018).

To assess whether a surface water segment is in attainment or impairment of a designated use, CDPHE uses assessment statistics, such as data percentiles. Assessment statistics differ by analyte (Table 1). The assessment statistic for ammonia, nitrate, and dissolved metals is the 85th percentile. CDPHE assesses dissolved oxygen using the 15th percentile, *E. coli* using the geometric mean, and pH using the range between the 15th and 85th percentiles (CDPHE 2018).

2.4.3 Laboratory Detection

When laboratories report analytical results, they also report the numerical limitations of their instruments and analytical methods. For trace metals, it is common for analytical results to be reported as being below a Minimum Reporting Level (MRL), which is the level that can be reliably detected by laboratory analytical methods. For most analytes, the MRL is below water quality standards; but for some analytes with hardness-based standards, it is possible to have a MRL that is higher than the standard. For example, when hardness is less

than ~75 mg/l, the MRL for silver is higher than the chronic standard. CDPHE's approach for lab results below MRL is to treat the result as zeros (CDPHE 2017).

3. Results

3.1 Water Quality Conditions and Standards

In Appendix B, we present an assessment of the twelve water quality parameters for each site in context to water quality standards in a tabular and visual format. The tables report the measured concentration and associated water quality standard for each sampling event, as well as the total number of exceedances for each water quality parameter across sampling events. The plots depict a comparison of measured water quality concentrations to water quality standards, expressed as a hazard quotient (HQ). HQs are the ratio of measured exposure (e.g., observed metal concentration) to a water quality standard. HQ values equal to or greater than one indicate an exceedance of a water quality standard and potential for risk. HQ values below one indicates attainment of a water quality standard and low probability of risk.

In addition to comparing each water quality result directly to water quality standards as in Appendix B, we also assess attainment of water quality standards by calculating an assessment statistic across sampling events for each site (Appendix C). For example, we calculated the 85th percentile of all dissolved cadmium results for Lime Creek and compared that value to the CDPHE chronic aquatic life standard for cadmium.

3.1.1 pH

Many chemical and biological processes in surface water are dependent on pH. For example, at low pH levels, metals are typically more soluble, more biologically available, and are more toxic to aquatic life. pH is measured in a range from 0 (acidic) to 14 (basic). A pH range of 6.5 to 9.0 is sufficient for the protection of aquatic life (CDPHE 2018). Measurements of pH at all sites fell within the target range of 6.5 - 9.0. The 15^{th} to the 85^{th} percentile range of pH for each site met the CDPHE standard.

3.1.1 Dissolved oxygen

Dissolved oxygen (DO) is a measure of how much oxygen is available to aquatic organisms. Some aquatic organisms require abundant DO while other aquatic organisms are adapted to survive with very little DO. Surface water with DO levels below one mg/l are considered hypoxic and are unable to support life (EPA 2016). DO levels are influenced by numerous factors including temperature, aquatic plant growth, and seasonality. Small, turbulent streams typically have high DO concentrations (Hamid et al. 2020). CDPHE has established that DO of at least 7.0 mg/l during spawning months (Oct-July), and 6.0 mg/l during nonspawning months, is sufficient for the protection of aquatic life (CDPHE 2018). The 15th percentile of DO for all sites but one met the CDPHE standard for aquatic life. During spawning season, the 15th percentile of DO at Tabeguache Creek was 6.1, which was less than the CDPHE minimum standard of 7.0 m/l during spawning season.

3.1.2 E. coli bacteria

Escherichia coli (abbreviated as *E. coli*) is a group of bacteria that have the potential to cause sickness and disease and are usually found in the intestines and feces of warm-blooded animals. Excessive *E. coli* indicates that surface water could potentially harm humans that inadvertently swallow water while recreating or swimming.

Two sites had samples with *E. coli* results that surpassed the CDPHE recreational standard, Stoner-lower and Coal Creek. The geometric mean of *E. coli* across sampling events met the CDPHE recreational water quality standard for all individual monitoring locations except Stoner-lower. The Stoner-lower sampling location is at highway 145 where there is public access to Stoner Creek from the bridge. Immediately upstream of this sampling site is private property with no public access and several residential cabins. The proposed reach of Stoner Creek for OW candidacy is located upstream of the private land and within San Juan National Forest. *E. coli* results from the Stoner-upper sampling location (located upstream of private land and within San Juan National Forest) had *E. coli* results that were in attainment of the recreational standard. Therefore, the elevated *E. coli* results detected below the private property may not be representative of the actual reach of Stoner Creek being proposed for OW consideration. Furthermore, when results from both Stoner-lower and Stoner-upper are combined and assessed as a singular segment, the geometric mean of *E. coli* meets the CDPHE recreational standard.

Coal Creek had an *E. coli* result of 127/100ml detected during fall low-flow sampling that barely surpassed the CDPHE recreational standard of 126/100ml. The summer low-flow *E. coli* result from Coal Creek was 21.8, well below the standard.

3.1.3 Nutrients

Nutrients are essential for living organisms and exist in different forms that naturally cycle through the atmosphere, terrestrial, and aquatic ecosystems. However, excess concentrations can substantially increase plant growth, affect aquatic habitat, and reach toxic levels to sensitive aquatic species.

Ammonia is a unique form of nitrogen that at high enough concentrations can cause direct toxic effects on aquatic life (EPA 2013). No monitoring locations had ammonia results that exceeded water quality standards and the 85th percentile of ammonia for each site met the CDPHE chronic standard for aquatic life.

Nitrate is another form of nitrogen which at high levels in surface water can impact drinking water sources and become harmful to human and animal health. Due to the short laboratory hold-time of nitrate, we often analyzed for combined nitrate-nitrite instead as it allows for a longer hold-time. CDPHE Regulation 31 states that nitrate-nitrite can be conservatively used

in place of nitrate using the same domestic water supply standard of 10 mg/l (CDPHE 2018). The justification is that if the combined nitrate-nitrite concentration is below 10 mg/l, then nitrate alone also must be below 10 mg/l. Nitrate did not exceed CDPHE domestic water supply standards in any samples and the 85th percentile of nitrate for each site met the standard.

3.1.4 Metals

Metals and other trace elements are found in surface water from natural sources such as the weathering of rocks. Typically, metals occur at small concentrations. In disturbed watersheds such as those where recent wildfire has occurred or where there is a legacy of mining, higher levels of metals in surface water can adversely affect aquatic life. In samples from both the San Juan and Gunnison basin, metal concentrations were often lower than the Minimum Reporting Level (MRL), which is the level that can be reliably detected by laboratory analytical methods. For all sites, metals were either below the MRL or below water quality standards. The 85th percentile for all metals at each site met CDPHE chronic aquatic life standards.

3.2 Summary

3.2.1 Exceedances per parameter and site

Water quality results collected thus far demonstrate that candidate reaches assessed here have good water quality. Concentrations of the twelve water quality parameters required by CDPHE for OW consideration were low and largely were in attainment of water quality standards. We present results as follows:

Appendix B includes a "scorecard" type document for each monitoring location that conveys water quality results from each sampling event in a tabular and visual format.

Appendix C summarizes attainment of the twelve water quality standards required for OW consideration using CDPHE assessment statistics (e.g., 85th percentile of data collected from a location).

4. Recommendations

4.1 Recommendations and Sampling Implications

Based on results collected thus far, we recommend the continuation of water quality sampling at all monitoring locations to further characterize conditions across hydrologic regimes. At some locations, we recommend expanding the sampling regime to include additional analytes and/or additional sampling dates. Our recommendations for specific sites are as follows:

4.1.1 Tabeguache - dissolved oxygen

In our July 2020 sample from Tabeguache Creek, DO was below the CDPHE minimum requirement for aquatic life during spawning season. Subsequent measurements during other seasons will provide a greater understanding of whether DO is of concern in this reach. If possible, it would be advantageous to collect additional DO measurements at this site beyond our standard sampling regime to further characterize DO conditions in Tabeguache Creek.

4.1.2 Coal Creek - E. coli

Coal Creek had an elevated *E. coli* concentration in September of 2020 that surpassed the CDPHE recreational standard, but the July 2020 *E. coli* concentration was much lower. Using the geometric mean of *E. coli* samples for assessment, as specified by CDPHE, Coal Creek would be in attainment of the CDPHE recreational standard. Subsequent sampling will provide greater understanding of whether *E. coli* is of concern in Coal Creek.

4.1.3 Stoner Creek - E. coli

We collect water quality samples from two sites on Stoner Creek; an upper site within the candidate reach, and a lower site downstream of the candidate reach. Due to rugged topography and private land limitations, the upstream monitoring location is much more difficult to access, especially in the winter. Results thus far indicate low levels of *E. coli* within the candidate reach, which is entirely on public land and upstream of all private property. Conversely, *E. coli* concentrations are elevated at the lower monitoring site, which is below private property where several residences are located. As discussed in section 3.1.2, the downstream monitoring location may not be representative of bacteria surface water conditions of the candidate reach. Regardless, when results from both the upper and lower Stoner monitoring locations are combined and assessed as a singular segment, the geometric mean of *E. coli* meets the CDPHE recreational standard.

4.1.4 Cascade Creek – Lime Creek and upper and lower Cascade monitoring locations

Results thus far demonstrate attainment of water quality standards at all three monitoring locations within the Cascade Creek watershed: Lime Creek, Cascade upper, and Cascade lower. The lower Cascade Creek site had slightly higher levels of *E. coli* and nitrate/nitrite than the upper Cascade Creek site, but levels were well within attainment of standards. Water quality data support the consideration of the entirety of Cascade Creek as an OW candidate. However, Lime Creek and Upper Cascade could be proposed as separate OW candidate reaches based on outreach and stakeholder discussions.

4.1.5 Big Dominguez Creek – E. coli

CDPHE is proposing to list segment COGULG06a_A on the Monitoring and Evaluation (M&E) list for *E. coli* (CDPHE 2021). This listing is based on *E. coli* exceedances in samples collected from Big Dominguez Creek during August and September of 2018. Our more recent *E. coli* results from August and September of 2020 indicate attainment of the recreational standard

for *E. coli*. We recommend continuing to sample *E. coli* at Big Dominguez Creek to demonstrate whether *E. coli* is of concern in this reach. Due to CDPHE protocol for assessing *E. coli* attainment, it may be advantageous to ensure that we collect multiple *E. coli* samples from within multiple 61-day periods. In 2020, we conducted August and September sampling events at Big Dominguez Creek within a 61-day period. If hydrologic conditions allow, we recommend trying to mimic this schedule in 2021 and collect the August and September samples within a 61-day period.

4.1.6 Upper Taylor River – arsenic

The Taylor River (segment COGUUG04_B) has an M&E listing of arsenic for domestic water supply use. Although arsenic is not one of the twelve required parameters for OW consideration, we recommend adding total arsenic to the suite of analytes for Upper Taylor River to do our due diligence and demonstrate whether arsenic is of concern in this candidate reach.

4.1.7 Escalante Creek - arsenic

The North Fork of Escalante Creek (segment COGULG05a_A) is proposed for M&E listing of arsenic for domestic water supply use. Although arsenic is not one of the twelve required parameters for OW consideration, we recommend adding total arsenic to the suite of analytes for Escalante Creek to do our due diligence and demonstrate whether arsenic is of concern in this candidate reach.

4.1.8 Waterfall Creek - benthic macroinvertebrates

Segment COGUSM07_A, which includes Waterfall Creek, is listed by CDPHE as impaired for aquatic life use based on benthic macroinvertebrates. This listing is based on benthic samples collected from the Howard Fork and not from Waterfall Creek. We recommend collecting a benthic macroinvertebrate sample in the fall of 2021 to demonstrate attainment of aquatic life use of Waterfall Creek. Although benthic macroinvertebrates are not one of the twelve required parameters for OW consideration, benthic communities are largely reflective of water quality conditions and documentation of benthic community condition would serve as an additional line of evidence for OW consideration.

4.1.9 All sites – benthic macroinvertebrates

The structure and composition of benthic macroinvertebrate communities reflect water quality conditions. Although benthic macroinvertebrates are not one of the twelve required parameters for OW consideration, documentation of benthic community condition would serve as an additional line of evidence for OW consideration. For candidate reaches where recent benthic macroinvertebrate data is not available, we recommend collecting a benthic macroinvertebrate sample in the fall of 2021 to help demonstrate attainment of aquatic life use.

3. Works Cited

- Environmental Protection Agency (EPA). (2013, August). Aquatic Life Ambient Water Quality Criteria for Ammonia-Freshwater (2013). <u>https://www.epa.gov/sites/production/files/2015-</u> <u>08/documents/fact_sheet_aquatic-life-ambient-water-quality-criteria-for-ammoniafreshwater-2013.pdf</u>
- EPA. (2016, August 16). National Aquatic Resource Surveys. <u>https://www.epa.gov/national-aquatic-resource-surveys/indicators-dissolved-oxygen</u>
- Colorado Department of Public Health and Environment (CDPHE). (2018). Regulation No. 31-The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31), effective 1/31/18.
- CDPHE. (2017). Section 303(d) Listing Methodology 2018 Listing Cycle.
- CDPHE. (2021). Notice of public rulemaking hearing before the Colorado Water Quality Control Commission: Revision to Colorado's section 303(d) list of impaired waters and monitoring and evaluation list, Regulation #93.
- Hamid, A., Bhat, S.U. & Jehangir, A. (2020). Local determinants influencing stream water quality. Appl Water Sci 10, 24 (2020). https://doi.org/10.1007/s13201-019-1043-4

4. Tables

Target Analyte	Fraction Evaluated	Associated use specified by CDPHE	Water quality standard	Assessment statistic
Ηd	N/A	Aquatic Life Class 1	6.5 - 9.0	$15^{th} - 85^{th}$ percentile
Dissolved Oxygen	N/A	Aquatic Life Class 1	6.0 / 7.0 mg/1*	15 th percentile
E. coli	N/A	Recreation Class P	126 /100ml	Geometric mean
Ammonia	Total	Aquatic Life Class 1 - Chronic	pH and temperature dependent standard	85 th percentile
Nitrate or Nitrate-Nitrite	Total	Domestic Water Supply Use	10 mg/l	85 th percentile
Cadmium	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	
Copper	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	85 th percentile or
Lead	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	15% of samples
Manganese	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	
Selenium	Dissolved	Aquatic Life Class 1 - Chronic	4.6 ug/l	85 th percentile
Silver	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	85 th percentile or
Zinc	Dissolved	Aquatic Life Class 1 - Chronic	Hardness-based standard*	exceedances in less unan 15% of samples
		Additional parameters	Ş	
Water temperature	N/A	N/A	N/A	N/A
Calcium	Dissolved	N/A	N/A	N/A
Magnesium	Dissolved	N/A	N/A	N/A
Arsenic	Total	Domestic Water Supply Use	0.02 ug/l	50 th percentile

Table 1. Water quality parameters required for Outstanding Waters consideration

*see CDPHE Regulation 31 tables I, II, and III (CDPHE 2018)

Long			-107.696619	-107.637910	-107.823050	-107.776092	-107.776100	-107.790775		-108.187916	-107.999798	-107.944373	-108.163686	-107.956500	-107.944564	-108.191214	-108.321711	-108.065590	-108.074187		-106.880770	-106.756850	-106.886900
Lat	in		37.814601	37.830749	37.667290	37.598529	37.578100	37.632562		37.574857	37.760342	37.779186	37.587578	37.778770	37.779540	37.688419	37.589573	37.795545	37.625564	an	37.441640	37.410480	37.442050
Stream Reach	San Juan Basin	Animas	Bear Creek	Boulder Creek	Cascade Creek – Upper	Cascade Creek – Lower	Grasshopper Creek	Lime Creek at Purgatory Flats	Dolores	Bear Creek	Coal Creek	East Fork Dolores	Priest	Slate Creek	Snow Spur Creek	Stoner Creek - Upper	Stoner Creek - Lower	West Fork Dolores	Wildcat Creek	Upper San Juan	Fall Creek	Quartz Creek	Wolf Creek

Table 2. Sampling locations in the San Juan Basin

Long			-108.707358	-107.833530		-107.308465	-106.569704		-108.381629	-108.324883	-108.377522	-108.195530	-108.161002
Lat			38.357849	37.853600		38.526525	38.857922		38.826719	38.670483	38.820051	38.636539	38.73476
Stream Reach	Gunnison Basin	San Miguel	Tabeguache Creek	Waterfall Creek*	Upper Gunnison	Soap Creek**	Taylor River	Lower Gunnison	Big Dominguez Creek	Escalante Creek	Little Dominguez Creek	Potter Creek	Roubideau Creek

Table 3. Sampling locations in the Gunnison Basin

* Water quality samples from Waterfall Creek are collected and analyzed by San Miguel Watershed Coalition.

**Water quality samples from Soap Creek are collected and analyzed by Curecanti National Recreation Area. Additional samples/analytes are supplemented by Mountain Studies Institute when necessary.

Fraction Evaluated	N/A	N/A	N/A	Total	Total	Dissolved									
Method	N/A	N/A	SM092220G	350.1	353.2	200.8	200.7	200.8	200.7	200.8	200.8	200.8	200.7	200.7	cessary
Instrument	YSI Pro-Plus	YSI Pro-Plus	N/A	N/A	N/A	ICP-MS	ICP-OES	ICP-MS	ICP-OES	ICP-MS	ICP-MS	ICP-MS	ICP-OES	ICP-OES	lded as deemed ne
Lab	Field probe	Field probe	Green Analytical	Additional analytes will be added as deemed necessary											
Target Analyte	Hd	Dissolved Oxygen	E. coli	Ammonia	Nitrate	Cadmium	Copper	Lead	Manganese	Selenium	Silver	Zinc	Calcium	Magnesium	

Table 4. Analytical method for water quality parameters

Mountain Studies Institute

Appendix A: Water quality sampling protocol



February 24, 2021 Mountain Studies Institute

Volunteers collecting water quality samples to support Outstanding Waters consideration

We are incredibly grateful to each volunteer willing to contribute time to this effort! Signature below acknowledges that the signee will follow the below protocols while collecting water quality samples to support Outstanding Waters consideration.

General Protocols from San Juan National Forest:

- All motorized access to and from sampling locations must conform to the Motorized Vehicle Use Maps (MVUM) issued by the Dolores, Columbine and Pagosa Ranger Districts.
- This permit does not authorize the installation of instrumentation, stream gauges, temperature sensors or other equipment.
- Volunteers shall not disturb any fences or other instrumentation that is in place within the permit area.
- The holder shall avoid, minimize or mitigate adverse effects to soil, water quality and riparian resource and shall remove all trash and debris generated by the use of the permit.

Communication:

- Please notify Scott Roberts (Director of Water Programs at Mountain Studies Institute) of plans to collect water quality samples (where, who, and when) prior to a sampling event:
 scott@mountainstudies.org; 865-382-2993
 - Scottoniountumstudies.org, 005

Field Protocols:

- pH/Dissolved Oxygen meter
 - Ensure sensors are calibrated daily before use.
 - Ensure that the measurement location is representative of conditions within the water body or reach. Avoid measurements directly below turbulent sections or in still water unless these conditions represent most of the water body or reach.
 - Dip sensors in flowing water and allow readings to stabilize. Record results in a field notebook. At a minimum we need pH and dissolved oxygen.
- Photographs and Site Condition
 - Please take representative photographs that capture flow conditions (e.g., upstream, downstream, turbid or clear).



- In field notebook, please note whether any recent precipitation events have occurred.
- Sample Bottles
 - E. coli: pre-preserved, do not filter
 - Nutrients:
 - fill two bottles
 - pre-preserved; do not filter; for nitrate/nitrite
 - unpreserved; do not filter; for total nitrate
 - If the lab receives the samples within 48 hours, then they will analyze for total nitrate. If not, then they will analyze for nitrate/nitrite.
 - Dissolved Metals: pre-preserved; 0.45 filter; fill at least ½ the bottle with filtered sample
 - Total Metals (not pictured, but identical to Dissolved Metals bottle); do not filter; we will analyze for total arsenic at Taylor River and Escalante.



- Follow sampling protocols at the direction of field leaders including:
 - Wear nitrile gloves while sampling.
 - Use sharpie fine-tip pen to label sample bottles prior to getting them wet. Please use side IDs listed in attached Table 1.



- Triple rinse syringe with sample water. Use syringe to fill pre-preserved bottles for E. coli and Nutrients, ensuring that you do not overfill and spill the preservative. Acid in bottles will burn skin and damage clothing if spilled.
- If a total metals bottle is requested (not typically requested), please also fill a prepreserved total metals bottle with the syringe. Denote on the sample container that this sample is "unfiltered."
- Fill syringe with sample water (after it has been triple rinsed with sample water).
 Screw the luer lock disc filter onto the syringe. Condition the filter by running and discarding approximately 10 mL of sample water through the filter prior to filling sample bottle.
- After rinsing and conditioning the syringe and filter, fill the dissolved metals bottle with filtered sample. Hold the syringe and filter at an angle when filling to prevent any unfiltered sample water from spilling into the dissolved metals bottle. Denote on the sample container that this sample is "0.45 filtered."
- Keep samples cold and on ice prior to delivery to laboratory.
- We will be collecting a field duplicate for every 10 samples we collectively collect. Please see Table 2 and coordinate with Scott Roberts prior to sampling to ensure when/where to collect a duplicate sample. Please label samples with "_30" for a duplicate and "_90" for a blank. For example, "BIG D_30" would be a duplicate for the site "BIG D."

Lab Delivery:

Please keep samples adequately cold by:



Place ice packs along the cooler walls. Then place bagged loose ice on the bottom of the cooler.





Place additional bagged loose ice on top of the samples. Adhere strapping tape at least three times around the cooler to prevent it from opening during shipment.

Post Office Box 426 1315 Snowden St., Suite 305 Silverton, CO 81433 info@mountainstudies.org www.mountainstudies.org tel 970.387.5161 fax 970.387.5226



- E. coli samples have very short hold time (6-30 hours depending on the lab). Please schedule field collections accordingly.
 - San Juan Basin Public Health (SJBPH) 281 Sawyer Dr, Durango 8am-4:30pm
 - E. coli samples are only accepted Monday-Thursday
 - Park in upper parking lot. On the west (uphill, away from the Animas) side of the building, there is a sample drop off cabinet where you can leave samples.
 - Please fill out SJBPH Chain of Custody (COC) form. One form for each sample.
 - City of Gunnison Water Lab 201 W.Virginia Avenue, Gunnison
- Nutrient and Dissolved Metals have a longer hold time (30 days for nutrients, 6 months for metals).
 - o Green Analytical Lab 75 Suttle St, Durango M-F 8am-5pm
 - Please fill out Green COC. Multiple samples can go on one sheet.
 - Green Analytical only accepts delivery of samples Monday-Friday

Field Parameters and Lab Data:

- Please enter field parameters that were recorded in field notebook into our Outstanding Waters field parameter spreadsheet in our shared folder online.
- Upload any photos (labeled in file name with site and date) to our shared folder online.
- Upload any lab results to our shared folder online.

Signature:

Date:

	Stream Reach	Lat	Long
ID	Stream Reach	Lat	Long
	San Juan Basin		
	Animas		r
Lime	Lime Creek at Purgatory Flats	37.632562	-107.790775
Casc - Up	Cascade Creek above Hwy 550	37.667290	-107.823050
Casc - Low	Cascade Creek above Animas River	37.598529	-107.776092
Boul	Boulder Creek	37.830749	-107.637910
Bear - Animas	Bear Creek	37.814601	-107.696619
Grass	Grasshopper Creek	37.578100	-107.776100
	Dolores		
Bear - Dolores	Bear Creek	37.574857	-108.187916
Priest	Priest	37.587578	-108.163686
East Fork	E Fork Dolores at Snow Spur Creek	37.779186	-107.944373
Burro	West Fork Dolores at Burro Bridge	37.795545	-108.065590
Coal	Coal Creek from Wilderness boundary downstream to confluence	37.760342	-107.999798
Slate	Slate Creek from Wilderness boundary downstream to confluence	37.778770	-107.956500
Snow	Snow Spur Creek	37.779540	-107.944564
StonerUp	Stoner Creek - Upper	37.688419	-108.191214
StonerLow	Stoner Creek - Lower	37.589573	-108.321711
Wild	Wildcat Creek	37.625564	-108.074187
	Upper San Juan		19
Fall	Fall Creek at Wolf Creek campground	37.441640	-106.880770
Wolf	Wolf Creek at Wolf Creek campground	37.442050	-106.886900
Quartz	Quartz Creek at FS 684	37.410480	-106.756850
	Gunnison Basin		
	San Miguel		
WATF	Waterfall - Ouray	37.853600	-107.833530
TAB	Tabeguache Creek above San Miguel River	38.357849	-108.707358
	Upper Gunnison		
UpTay*	Taylor River, Above Taylor Reservoir	38.857922	-106.569704
Soap	Soap Creek, above	38.526525	-107.308465
	Lower Gunnison		
BIG D	Big Dominguez Creek above Gunnison River	38.826719	-108.381629
LIL D	Little Dominguez Creek above Big Dominguez Creek	38.820051	-108.377522
ESC*	Escalante Creek at Potholes Recreation Area	38.670483	-108.324883
POTT	Potter Creek above Roubideau Creek	38.636539	-108.195530
ROUB	Roubideau Creek above Gunnison River	38.734760	-108.161002

*collect additional unfiltered total metals bottle (identical to dissolved metal bottle, just unfiltered).

	Table 2. Dı	ıplicate/Bla	nk schedu	e	
	# of sites	Winter'21	Spring'21	July'21	Fall'21
Dolores	10	1	1	1	1
Animas	6	1	1	1	
Upper San Juan	3	1	1		1
San Miguel	2	1			
Gunnison	7	1	1	1	1

Note: "1" indicates that a duplicate and blank needs to be collected from one site (chosen at random) within the designated watershed. Please label samples with "_30" for a duplicate and "_90" for a blank. For example, "BIG D_30" would be a duplicate for the site "BIG D."

Appendix B: Water quality results from OW candidate monitoring locations - "scorecara" for each location.

Appendix B includes a "scorecard" type document for each monitoring location that conveys water quality results from each sampling event in a tabular and visual format. Sites are in alphabetical order by basin as in Table 2.

Template

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Excee</mark> d
	Ammonia	mg/l	<0.1	3.94	<0.1	2.13	0%
	Cadmium	ug/l	<0.1	0.33	<0.1	0.43	0%
	Copper	ug/l	<0.5	6.77	<0.5	9.15	0%
Bear - Animas	D.O.	mg/l	11.5	> 6.0 / 7.0	12.5	> 6.0 / 7.0	0%
	E. coli	per 100ml	2	126	<1	126	0%
	Lead	ug/l	<0.5	1.76	<0.5	2.59	0%
	Manganese	ug/l	1.6	1479.33	<0.5	1663.26	0%
	Nitrate	mg/l			0.053	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	pН		7.61	>6.5 & <9	8.09	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.18	<0.2	0.33	0%
	Zinc	ug/l	2.4	90.01	2.2	123.95	0%



Minimum Reporting Level (MRL) is smallest measured concentration of a substance that can be reliably measured for the analytical method used. Hazard Quotient is the ratio of a measured concentration to a water quality standard. Values greater than 1 indicate an exceedance of a water quality standard


Bear Creek (Animas)

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	3.94	<0.1	2.13	0%
	Cadmium	ug/l	<0.1	0.33	< 0.1	0.43	0%
	Copper	ug/l	<0.5	6.77	<0.5	9.15	0%
	D.O.	mg/l	11.5	> 6.0 / 7.0	12.5	> 6.0 / 7.0	0%
Deen Animes	E. coli	per 100ml	2	126	<1	126	0%
Bear - Animas	Lead	ug/l	<0.5	1.76	<0.5	2.59	0%
	Manganese	ug/l	1.6	1479	<0.5	1663	0%
	Nitrate	mg/l			0.053	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	рН		7.61	>6.5 & <9	8.09	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/i	<0.2	0.18	<0.2	0.33	0%
	Zinc	ug/l	2.4	90	2.2	124	0%



Boulder Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	4.09	<0.1	1.91	0%
	Cadmium	ug/l	0.2	0.21	0.3	0.37	0%
	Copper	ug/l	1.8	4.01	1.8	7.57	0%
	D.O.	mg/l	12.7	> 6.0 / 7.0	13.3	> 6.0 / 7.0	0%
	E. coli	per 100ml	<1	126	<1	126	0%
Boulder Creek	Lead	ug/l	<0.5	0.89	<0.5	2.03	0%
	Manganese	ug/i	<0.5	1206	<0.5	1545	0%
	Nitrate	mg/l			0.116	10	0%
	Nitrate/Nitrite	mg/l	0.036	10			0%
	pН		7.57	>6.5 & <9	8.16	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.06	<0.2	0.23	0%
	Zinc	ug/l	24.3	51	30.3	101	0%



Cascade Creek - Lower

			Summ	er 2020	Fall (low-f	low) 2020	
2	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	3.38	<0.1	1.17	0%
	Cadmium	ug/l	<0.1	0.39	<0.1	0.54	0%
	Copper	ug/l	<0.5	8.13	<0.5	11.77	0%
	D.O.	mg/l	12.6	> 6.0 / 7.0	11.3	> 6.0 / 7.0	0%
Cascade Creek	E. coli	per 100ml	3.1	126	7.5	126	0%
- Lower	Lead	ug/l	<0.5	2.23	<0.5	3.56	0%
	Manganese	ug/l	2.8	1589	<0.5	1835	0%
	Nitrate	mg/l			0.076	10	0%
	Nitrate/Nitrite	mg/l	0.969	10			0%
	pН		7.75	>6.5 & <9	8.46	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.26	<0.2	0.55	0%
	Zinc	ug/l	<2	109	2.8	162	0%



Cascade Creek - Upper

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	3.10	<0.1	1.63	0%
	Cadmium	ug/i	<0.1	0.32	<0.1	0.52	0%
	Copper	ug/l	<0.5	6.53	<0.5	11.33	0%
	D.O.	mg/l	12.2	> 6.0 / 7.0	11	> 6.0 / 7.0	0%
Cascade Creek	E. coli	per 100ml	<1	126	<1	126	0%
- Upper	Lead	ug/l	<0.5	1.68	<0.5	3.39	0%
	Manganese	ug/l	22.9	1458	31	1808	0%
	Nitrate	mg/l			0.085	10	0%
	Nitrate/Nitrite	mg/l	0.093	10			0%
	рН		7.82	>6.5 & <9	8.26	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.17	<0.2	0.51	0%
	Zinc	ug/l	4.1	86.6	4.8	156	0%



Grasshopper Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	4.13	<0.1	1.79	0%
	Cadmium	ug/l	<0.1	0.30	<0.1	0.38	0%
	Copper	ug/l	<0.5	6.14	<0.5	7.91	0%
	D.O.	mg/l	13.4	> 6.0 / 7.0	11.3	> 6.0 / 7.0	0%
Grass-hopper	E. coli	per 100ml	<1	126	<1	126	0%
Creek	Lead	ug/l	<0.5	1.55	<0.5	2.15	0%
	Manganese	ug/l	<0.5	1424	1.7	1571	0%
	Nitrate	mg/l			0.087	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	pН		7.56	>6.5 & <9	8.2	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.15	<0.2	0.25	0%
	Zinc	ug/l	2.8	81.1	3.2	106	0%



Lime Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	3.26	<0.1	0.89	0%
	Cadmium	ug/l	<0.1	0.34	<0.1	0.38	0%
	Copper	ug/l	<0.5	7.00	<0.5	7.96	0%
	D.O.	mg/l	12.4	> 6.0 / 7.0	10.7	> 6.0 / 7.0	0%
	E. coli	per 100ml	<1	126	<1	126	0%
Lime Creek	Lead	ug/l	<0.5	1.84	<0.5	2.17	0%
	Manganese	ug/l	0.7	1499	<0.5	1575	0%
	Nitrate	mg/l			<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.029	10			0%
	рН		7.78	>6.5 & <9	8.62	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.20	<0.2	0.25	0%
	Zinc	ug/l	<2	93.3	2.6	107	0%



Bear Creek (Dolores)

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	1.09	<0.1	0.92	0%
	Cadmium	ug/l	<0.1	0.42	<0.1	0.49	0%
	Copper	ug/l	<0.5	8.94	<0.5	10.53	0%
	D.O.	mg/l	10.5	> 6.0 / 7.0	10	> 6.0 / 7.0	0%
Bear Creek	E. coli	per 100ml	11	126	3.1	126	0%
(Dolores)	Lead	ug/l	<0.5	2.51	<0.5	3.09	0%
	Manganese	ug/l	3.2	1649	2.6	1757	0%
	Nitrate	mg/l	<0.02	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	рН		8.5	>6.5 & <9	8.6	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.32	<0.2	0.44	0%
	Zinc	ug/l	<2	121	<2	144	0%



Coal Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	0.78	<0.1	0.92	0%
	Cadmium	ug/l	<0.1	0.47	<0.1	0.65	0%
	Copper	ug/l	<0.5	10.01	<0.5	14.41	0%
	D.O.	mg/l	9.3	> 6.0 / 7.0	9.3	> 6.0 / 7.0	0%
	E. coli	per 100ml	21.8	126	127.4	126	50%
Coal Creek	Lead	ug/l	<0.5	2.90	<0.5	4.59	0%
	Manganese	ug/l	<0.5	1723	4	1986	0%
	Nitrate	mg/l	<0.02	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	рН		8.6	>6.5 & <9	8.6	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.40	<0.2	0.83	0%
	Zinc	ug/l	<2	136.5	<2	201.1	0%



East Fork Dolores River

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	1.79	<0.1	1.52	0%
	Cadmium	ug/l	<0.1	0.50	<0.1	0.60	0%
	Copper	ug/l	<0.5	10.85	<0.5	13.34	0%
	D.O.	mg/l	9.9	> 6.0 / 7.0	11	> 6.0 / 7.0	0%
East Fork	E. coli	per 100ml	2	126	<1	126	0%
Dolores	Lead	ug/l	<0.5	3.21	<0.5	4.16	0%
	Manganese	ug/l	<0.5	1777	<0.5	1927	0%
	Nitrate	mg/l	0.074	10	0.058	10	0%
	Nitrate/Nitrite	mg/l	0.075	10		hort	0%
	рН		8.2	>6.5 & <9	8.3	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	1.2	4.60	0%
	Silver	ug/l	<0.2	0.47	<0.2	0.71	0%
	Zinc	ug/l	<2	149	<2	185	0%



Priest Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Excee</mark> d
	Ammonia	mg/l	<0.1	1.09	<0.1	0.78	0%
	Cadmium	ug/l	<0.1	0.62	<0.1	0.69	0%
	Copper	ug/l	0.6	13.88	<0.5	15.55	0%
	D.O.	mg/l	11.2	> 6.0 / 7.0	10	> 6.0 / 7.0	0%
	E. coli	per 100ml	21.8	126	4.1	126	0%
Preist Creek	Lead	ug/l	<0.5	4.38	<0.5	5.04	0%
	Manganese	ug/l	1.8	1957	1	2045	0%
	Nitrate	mg/l	<0.02	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	pН		8.5	>6.5 & <9	8.7	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.77	<0.2	0.97	0%
	Zinc	ug/l	<2	193	<2	218	0%



Slate Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	1.79	<0.1	1.09	0%
	Cadmium	ug/l	<0.1	0.25	<0.1	0.41	0%
	Copper	ug/l	<0.5	4.99	<0.5	8.71	0%
	D.O.	mg/l	10.2	> 6.0 / 7.0	9.3	> 6.0 / 7.0	0%
	E. coli	per 100ml	79.4	126	5.2	126	0%
Slate Creek	Lead	ug/l	<0.5	1.19	<0.5	2.43	0%
	Manganese	ug/l	<0.5	1314	<0.5	1632	0%
	Nitrate	mg/l	0.048	10	0.11	10	0%
	Nitrate/Nitrite	mg/l	0.045	10			0%
	рН		8.2	>6.5 & <9	8.5	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	1.2	4.60	0%
	Silver	ug/l	<0.2	0.10	<0.2	0.30	0%
	Zinc	ug/l	<2	65.1	<2	118	0%



Snow Spur Creek

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	1.09	<0.1	1.09	0%
	Cadmium	ug/l	<0.1	0.44	<0.1	0.49	0%
	Copper	ug/l	<0.5	9.31	<0.5	10.50	0%
	D.O.	mg/l	9.8	> 6.0 / 7.0	12	> 6.0 / 7.0	0%
Snow Spur	E. coli	per 100ml	10.9	126	2	126	0%
Creek	Lead	ug/l	<0.5	2.64	<0.5	3.08	0%
	Manganese	ug/l	2.3	1675	0.8	1755	0%
	Nitrate	mg/l	<0.02	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	<0.02	10			0%
	рН		8.5	>6.5 & <9	8.5	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.35	<0.2	0.44	0%
	Zinc	ug/l	<2	126	<2	144	0%



Stoner - Upper

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Excee</mark> d
	Ammonia	mg/l			<0.1	0.78	0%
	Cadmium	ug/l			<0.1	0.57	0%
	Copper	ug/l			<0.5	12.44	0%
	D.O.	mg/l			10	> 6.0 / 7.0	0%
Stoner	E. coli	per 100ml			<1	126	0%
-Upper	Lead	ug/l			<0.5	3.82	0%
	Manganese	ug/l			2.4	1875	0%
	Nitrate	mg/l			< 0.02	10	0%
	Nitrate/Nitrite	mg/l					0%
	pН				8.7	>6.5 & <9	0%
	Selenium	ug/l			<1	4.60	0%
	Silver	ug/l			<0.2	0.62	0%
	Zinc	ug/l			<2	172	0%



Stoner - Lower

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	1.10	<0.1	0.78	0%
	Cadmium	ug/l	<0.1	0.60	<0.1	0.59	0%
	Copper	ug/l	<0.5	13.20	<0.5	12.92	0%
	D.O.	mg/l	10.3	> 6.0 / 7.0	10	> 6.0 / 7.0	0%
Stoner	E. coli	per 100ml	517.2	126	86.5	126	50%
-Lower	Lead	ug/l	<0.5	4.11	<0.5	4.00	0%
	Manganese	ug/l	7.1	1919	2.8	1903	0%
	Nitrate	mg/l	0.03	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.147	10			0%
	ρН		8.4	>6.5 & <9	8.7	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.70	<0.2	0.67	0%
	Zinc	ug/l	<2	183	<2	179	0%



West Fork Dolores

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	2.43	<0.1	1.52	0%
	Cadmium	ug/l	<0.1	0.26	<0.1	0.40	0%
	Copper	ug/l	<0.5	5.13	<0.5	8.48	0%
	D.O.	mg/l	10.8	> 6.0 / 7.0	12	> 6.0 / 7.0	0%
West Fork	E. coli	per 100ml	3.1	126	<1	126	0%
Dolores	Lead	ug/l	<0.5	1.23	<0.5	2.35	<mark>0%</mark>
	Manganese	ug/l	<0.5	1328	0.6	1615	0%
	Nitrate	mg/l	0.105	10	0.132	10	0%
	Nitrate/Nitrite	mg/l	0.108	10			0%
	рН		8	>6.5 & <9	8.3	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.10	<0.2	0.29	0%
	Zinc	ug/l	2.8	67	<2	114	0%



Wildcat Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	0.93	<0.1	0.92	0%
	Cadmium	ug/l	<0.1	0.55	<0.1	0.57	0%
	Copper	ug/l	<0.5	12.09	<0.5	12.42	0%
	D.O.	mg/l	8.6	> 6.0 / 7.0	9.1	> 6.0 / 7.0	0%
	E. coli	per 100ml	8.5	126	<1	126	0%
Wildcat Creek	Lead	ug/l	<0.5	3.68	<0.5	3.81	0%
	Manganese	ug/l	5.3	1854	<0.5	1874	0%
	Nitrate	mg/l	0.025	10	<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.072	10			0%
	рН		8.5	>6.5 & <9	8.6	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.59	<0.2	0.62	0%
	Zinc	ug/l	3.4	167	<2	172	0%



Fall Creek

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	4.63	<0.1	5.04	0%
	Cadmium	ug/l	<0.1	0.17	<0.1	0.20	0%
	Copper	ug/l	<0.5	3.16	0.6	3.73	0%
	D.O.	mg/l	9.6	> 6.0 / 7.0	8.9	> 6.0 / 7.0	0%
	E. coli	per 100ml	14.5	126	<1	126	0%
Fall Creek	Lead	ug/l	<0.5	0.65	<0.5	0.81	0%
	Manganese	ug/l	<0.5	1098	<0.5	1173	0%
	Nitrate	mg/l			<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.136	10			0%
	pH		7.43	>6.5 & <9	7.31	>6.5 & <9	0%
	Selenium	ug/i	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.04	<0.2	0.06	0%
	Zinc	ug/l	2.1	39.9	<2	47.8	0%



Quartz Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	5.78	<0.1	1.71	0%
	Cadmium	ug/l	<0.1	0.26	<0.1	0.31	0%
	Copper	ug/l	<0.5	5.14	<0.5	6.24	0%
	D.O.	mg/l	10.4	> 6.0 / 7.0	10.1	> 6.0 / 7.0	0%
	E. coli	per 100ml	2	126	<1	126	0%
Quartz Creek	Lead	ug/l	<0.5	1.23	<0.5	1.58	0%
	Manganese	ug/l	2.8	1328	7.4	1433	0%
	Nitrate	mg/l			<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.124	10			0%
	рН		6.51	>6.5 & <9	8.23	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.10	<0.2	0.15	0%
	Zinc	ug/l	<2	67.1	<2	82.5	0%



Wolf Creek

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	2.33	<0.1	3.14	0%
	Cadmium	ug/l	<0.1	0.12	<0.1	0.14	0%
	Copper	ug/l	<0.5	2.13	<0.5	2.57	0%
	D.O.	mg/l	11.1	> 6.0 / 7.0	10.9	> 6.0 / 7.0	0%
	E. coli	per 100ml	8.6	126	<1	126	0%
Wolf Creek	Lead	ug/l	<0.5	0.39	<0.5	0.50	0%
	Manganese	ug/i	1.2	942	0.7	1014	0%
	Nitrate	mg/l			<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.066	10			0%
	рН		8.03	>6.5 & <9	7.81	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.02	<0.2	0.03	0%
	Zinc	ug/l	<2	26.22	<2	32.10	0%



Tabeguache Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	% Exceed
	Ammonia	mg/l	<0.1	1.15	<0.1	1.15	0%
	Cadmium	ug/l	<0.1	0.88	<0.1	0.92	0%
	Copper	ug/l	<0.5	20.45	<0.5	21.65	0%
	D.O.	mg/l	6.19	> 6.0 / 7.0	7.36	> 6.0 / 7.0	50%
Tabeguache	E. coli	per 100ml	6.3	126	19.7	126	0%
Creek	Lead	ug/l	<0.5	7.08	<0.5	7.59	0%
	Manganese	ug/l	10.7	2276	15.2	2327	0%
	Nitrate	mg/l			<0.02	10	0%
	Nitrate/Nitrite	mg/l	0.037	10	1.0		0%
	рН		8.36	>6.5 & <9	8.46	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	1.69	<0.2	1.89	0%
	Zinc	ug/l	3.7	292	<2	310	0%



Waterfall Creek

			Summ	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exce</mark> ed
	Ammonia	mg/l	<0.1	2.50	<0.2	6.04	0%
	Cadmium	ug/l	<0.1	0.53	0.319	1.20	0%
	Copper	ug/l	<0.5	11.44	6.6	29.28	0%
	D.O.	mg/l	11.4	> 6.0 / 7.0	10.28	> 6.0 / 7.0	0%
Waterfall	E. coli	per 100ml	2	126	<1	126	0%
Creek	Lead	ug/l	<0.5	3.43	0.51	10.94	0%
	Manganese	ug/l	5.2	1815	179	2618	0%
	Nitrate	mg/l			<0.1	10	0%
	Nitrate/Nitrite	mg/l	0.095	10	<0.1	10	0%
	рН		7.98	>6.5 & <9	6.94	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	0.44	4.60	0%
	Silver	ug/l	<0.2	0.52	<0.5	3.47	0%
	Zinc	ug/l	3.8	157	81.7	428	0%



Upper Taylor River

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	0.82	<0.1	1.43	0%
	Cadmium	ug/l	<0.1	0.28	<0.1	0.31	0%
	Copper	ug/l	<0.5	5.62	<0.5	6.30	0%
	D.O.	mg/l	6.77	> 6.0 / 7.0	8.18	> 6.0 / 7.0	0%
Upper Taylor	E. coli	per 100ml	8.6	126	<1	126	0%
River	Lead	ug/l	<0.5	1.38	<0.5	1.60	0%
	Manganese	ug/1	5.3	1376	7.2	1438	0%
	Nitrate	mg/l					0%
	Nitrate/Nitrite	mg/l	0.182	10	1.41	10	0%
	pН		8.64	>6.5 & <9	8.34	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.13	<0.2	0.16	0%
	Zinc	ug/l	2.6	73.9	27.3	83.4	0%



Big Dominguez Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Excee</mark> d
	Ammonia	mg/l	<0.1	0.30	<0.1	0.78	0%
	Cadmium	ug/l	<0.1	0.59	<0.1	0.67	0%
	Copper	ug/l	0.8	12.89	<0.5	15.0	0%
	D.O.	mg/l	6.48	> 6.0 / 7.0	7.78	> 6.0 / 7.0	0%
Big	E. coli	per 100ml	2	126	39.3	126	0%
Dominguez	Lead	ug/l	<0.5	3.99	<0.5	4.82	0%
	Manganese	ug/l	3.7	1901	2.9	2017	0%
	Nitrate	mg/l					
	Nitrate/Nitrite	mg/l	0.021	10	0.414	10	0%
	рН		8.78	>6.5 & <9	8.54	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.67	<0.2	0.90	0%
	Zinc	ug/l	<2	179	3.7	210	0%



Escalante Creek

			Summe	er 2020	Fall (low-f	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Exceed</mark>
	Ammonia	mg/l	<0.1	3.10	<0.1	0.69	0%
	Cadmium	ug/1	<0.1	0.32	<0.1	0.86	0%
	Copper	ug/l	<0.5	6.53	<0.5	19.87	0%
	D.O.	mg/l	12.2	> 6.0 / 7.0	7.88	> 6.0 / 7.0	0%
- · ·	E. coli	per 100ml	<1	126	3.1	126	0%
Escalante	Lead	ug/l	<0.5	1.68	<0.5	6.83	0%
	Manganese	ug/l	22.9	1458	2.8	2251	0%
	Nitrate	mg/l			- 19 - P		
	Nitrate/Nitrite	mg/l	0.093	10	0.626	10	0%
	рН		7.82	>6.5 & <9	8.68	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.17	<0.2	1.59	0%
	Zinc	ug/l	4.1	86.6	2.7	283	0%



Little Dominguez Creek

			Summ	er 2020	Fall (low-1	low) 2020	
	Analyte	Unit	Result	Water quality standard	Result	Water quality standard	<mark>% Excee</mark> d
	Ammonia	mg/l	<0.1	0.47	<0.1	0.75	0%
	Cadmium	ug/l	<0.1	0.62	<0.1	0.68	0%
	Copper	ug/l	1.2	13.66	0.9	15.21	0%
	D.O,	mg/l	6.01	> 6.0 / 7.0	7.67	> 6.0 / 7.0	0%
Little	E. coli	per 100ml	<1	126	33.6	126	0%
Dominguez	Lead	ug/l	<0.5	4.29	<0.5	4.91	0%
	Manganese	ug/l	5.1	1945	3.5	2028	0%
	Nitrate	mg/l				11 I.S. 1	
	Nitrate/Nitrite	mg/l	0.035	10	0.068	10	0%
	рН		8.58	>6.5 & <9	8.59	>6.5 & <9	0%
	Selenium	ug/l	<1	4.60	<1	4.60	0%
	Silver	ug/l	<0.2	0.75	<0.2	0.93	0%
	Zinc	ug/l	8.5	190	7.7	213	0%



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Appendix C: Assessment of water quality results using CDPHE assessment statistics.

Appendix C summarizes attainment of the twelve water quality standards required for OW consideration using CDPHE assessment statistics.

"WQ Criteria" is the CDPHE water quality standard that we compare measured results to.

"Assessment Statistic" is the calculated value (e.g., 85th percentile) as specified by CDPHE of measured water quality parameters that we compare to water quality standards.

Yellow highlighted fields (e.g., E. coli assessment statistic for Stoner – Low) indicate instances where the assessment statistic exceeds the water quality criteria.

Blanks indicate instances where no data were available to assess.

							The second second
Monitoring W Location	WQ Criteria range	assessment statistic (15 pctl)	assessment statistic (85 pctl)	WQ Criteria minimum (spawning season)	assessment statistic during spawning season (15 pctl)	WQ Criteria minimum (non-spawning season)	assessment statistic during non-spawning season (15 pctl)
			Sai	San Juan			
			Ar	Animas			
Bear - Animas	6.5-9.0	7.7	8.0	7.0	11.7	6.0	
Boulder	6.5-9.0	7.7	8.1	7.0	12.8	6.0	
Cascade - Low	6.5-9.0	7.9	8.4	7.0	11.5	6.0	
Cascade - Up	6.5-9.0	7.9	8.2	7.0	11.2	6.0	
Grasshopper	6.5-9.0	7.7	8.1	7.0	11.6	6.0	
Lime	6.5-9.0	7.9	8.5	7.0	11.0	6.0	
			DC	Dolores			
Bear - Dolores	6.5-9.0	8.5	8.6	7.0	10.5	6.0	10.0
Coal	6.5-9.0	8.6	8.6	7.0	9.3	6.0	9.3
East Fork Dolores	6.5-9.0	8.2	8.3	7.0	9.9	6.0	11.0
Priest	6.5-9.0	8.5	8.7	7.0	11.2	6.0	10.0
Slate	6.5-9.0	8.2	8.5	7.0	10.2	6.0	9.3
Snow Spur	6.5-9.0	8.5	8.5	7.0	9.8	6.0	12.0
Stoner - Low	6.5-9.0	8.4	8.7	7.0	10.3	6.0	10.0
Stoner - Up	6.5-9.0	8.7	8.7	7.0		6.0	10.0
West Fork Dolores	6.5-9.0	8.0	8.3	7.0	10.8	6.0	12.0
Wildcat	6.5-9.0	8.5	8.6	7.0	8.6	6.0	9.1
			Upper	Upper San Juan			
Fall	6.5-9.0	7.3	7.4	7.0	9.0	6.0	
Quartz	6.5-9.0	6.8	8.0	7.0	10.1	6.0	
Walf	6.5-9.0	7.8	8.0	7.0	10.9	6.0	

		5			Dissolved (Dissolved Oxygen (mg/l)	
Monitoring Location	WQ Criteria range	assessment statistic (15 pctl)	assessment statistic (85 pctl)	WQ Criteria minimum (spawning season)	assessment statistic during spawning season (15 pctl)	WQ Criteria minimum (non-spawning season)	assessment statistic during non-spawning season (15 pctl)
			ß	Gunnison			
			San	San Miguel			
Tabeguache	6.5-9.0	8.4	8.4	7.0	6.2	6.0	7.4
Waterfall	6.5-9.0	7.1	7.8	7.0	10.4	6.0	
			Upper	Upper Gunnison			
Soap							
Upper Taylor	6.5-9.0	8.4	8.6	7.0		6.0	7.0
			Lower	Lower Gunnison			
Big Dominguez	6.5-9.0	8.6	8.7	7.0		6.0	6.7
Escalante	6.5-9.0	8.7	8.8	7.0	7.9	6.0	7.9
Little Dominguez	6.5-9.0	8.6	8.6	7.0		6.0	6.3
Potter							
Roubideau							

	E. coli	oli	Am	Ammonia	Z	Nitrate	Nitra	Nitrate/Nitrite
Monitoring Location	WQ Criteria	assessment statistic (geometric mean)	WQ Criteria	assessment statistic (85 pctl)	WQ Criteria	assessment statistic (85 pctl)	WQ Criteria	assessment statistic (85 pctl)
			Ň	San Juan				
			A	Animas				
Bear - Animas	126	1.4	7.59	0	10	0.05	10	00.0
Boulder	126	1.0	7.43	0	10	0.12	10	0.04
Cascade - Low	126	4.8	4.68	0	10	0.08	10	0.97
Cascade - Up	126	1.0	5.26	0	10	0.09	10	0.09
Grasshopper	126	1.0	7.13	0	10	0.09	10	0.00
Lime	126	1.0	3.91	0	10	0.00	10	0.03
			C	Dolores				
Bear - Dolores	126	5.8	1.96	0	10	0.00	10	00.0
Coal	126	52.7	1.77	0	10	0.00	10	00.00
East Fork Dolores	126	1.4	3.48	0	10	0.07	10	0.08
Priest	126	9.5	1.80	0	10	00.0	10	0.00
Slate	126	20.3	2.93	0	10	0.10	10	0.05
Snow Spur	126	4.7	2.14	0	10	00.00	10	0.00
Stoner - Low	126	211.5	1.96	0	10	0.03	10	0.15
Stoner - Up	126	1.0	1.47	0	10	00.0	10	
West Fork Dolores	s 126	1.8	4.32	0	10	0.13	10	0.11
Wildcat	126	2.9	1.96	0	10	0.02	10	0.07
			Uppe	Upper San Juan				
Fall	126	8. 8. 8.	15.98	0	10	00.00	10	0.14
Quartz	126	1.4	15.98	0	10	00.0	10	0.12
Wolf	126	2.9	6.52	0	10	0.00	10	0.07

	E. 6	E. coli	Am	Ammonia	N	Nitrate	Nitra	Nitrate/Nitrite
Monitoring Location	WQ Criteria	assessment statistic (geometric mean)	WQ Criteria	assessment statistic (85 pctl)	WQ Criteria	assessment statistic (85 pctl)	WQ Criteria	assessment statistic (85 pctl)
			0	Gunnison				
			Sa	San Miguel			•1	
Tabeguache	126	11.1	2.55	0	10	0.00	10	0.04
Waterfall	126	1.4	19.40	0	10	0.00	10	0.08
			Uppe	Upper Gunnison				
Soap								
Upper Taylor	126	2.9	2.18	0	10		10	1.23
			Lowe	Lower Gunnison				
Big Dominguez	126	8.9	1.58	0	10		10	0.36
Escalante	126	4.0	1.37	0	10		10	0.55
Little Dominguez	126	5.8	1.82	0	10		10	0.06
Potter								
Roubideau								

Zinc	assessment statistic (85 pctl)			2.37	29.40	2.38	4.70	3,14	2.21		0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	2.38	2.89		1.79	0.00	0.00
2	WQ Criteria			106.17	75.43	135.28	120.70	93.37	96.66		131.57	166.31	166.49	204.56	89.50	134,22	181.10	171.97	88.92	168.97		43.86	74.83	29.17
Silver	assessment statistic (85 pctl)			0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Si	WQ Criteria			0.25	0.13	0.39	0.32	0.20	0.22		0.37	0.58	0.58	0.86	0.18	0.39	0.68	0.62	0.18	0.60		0.05	0.13	0.02
Selenium	assessment statistic (85 pctl)			00'0	00.0	00.0	00.0	00.0	0.00		0.00	00.00	1.02	00.0	1.02	00.0	00.0	00.0	00"0	00.00		00"0	00.0	0.00
Sel	WQ Criteria			4.60	4.60	4.60	4.60	4.60	4.60		4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60		4.60	4.60	4,60
Manganese	assessment statistic (85 pctl)			1.36	00.0	2.38	29.79	1.45	0.60		3.11	3.40	0.00	1.68	00.0	2.08	6.46	2.40	0.51	4.51		00.0	6.71	1.13
Man	WQ Criteria	San Juan	Animas	1571.57	1386.57	1717.40	1647.16	1499.31	1537.27	Dolores	1700.00	1852.37	1853.08	1998.27	1476.22	1712.49	1911.07	1875,19	1472,73	1863.15	Upper San Juan	1136.85	1382.56	979.11
Lead	assessment statistic (85 pctl)	Sai	Ar	0.00	0.00	0.00	0.00	0.00	0.00	DC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Upper	0.00	0.00	0.00
	WQ Criteria			2.15	1.42	2.87	2.50	1.84	2.00		2.78	3,67	3.67	4,68	1.75	2.84	4.06	3.82	1.73	3.74		0.73	1.41	0.44
Copper	assessment statistic (85 pctl)			00.0	1.80	0.00	00'0	00.0	0.00		00.0	00.0	00.0	0.51	00.0	00.0	00.0	00.0	0.00	0.00		0.51	00:0	0.00
ပိ	WQ Criteria			7.91	5.74	9.93	8.92	7.01	7.47		9.67	12.06	12.07	14.65	6.74	98.6	13.06	12.44	6.70	12.24		3.45	5.69	2.35
Cadmium	assessment statistic (85 pctl)			0.00	0.29	00.0	0.00	0.00	00:00		0.00	00'0	00.00	00.0	00.0	00:0	0.00	00.0	00.0	0.00		0.00	00.0	0.00
Cad	WQ Criteria			0.38	0.29	0.46	0.42	0.34	0.36		0.45	0.55	0.55	0.65	0.33	0.46	0.59	0.57	0.33	0.56		0.18	0.28	0.13
	Monitoring Location			Bear - Animas	Boulder	Cascade - Low	Cascade - Up	Grasshopper	Lime		Bear - Dolores	Coel	East Fork Dolores	Priest	Slate	Snow Spur	Stoner - Low	Stoner - Up	West Fork Dolores	Wildcat		Fall	Quartz	Wo f

Zinc	assessment statistic (85 pctl)			3,15	70.02			23.60		3,15	2.67	8,38		
Z	WQ Criteria			300.66	369.02			78.62		194.24	261.99	201.42		
Silver	assessment statistic (85 pctl)			0.00	0.00			0.00		0.00	0.00	0.00		
S	WQ Criteria			1.79	2.63			0.14		0.78	1.38	0.84		
Selenium	assessment statistic (85 pctl)			00.00	0.37			0.00		0.00	0.00	0.00		
Sel	WQ Criteria			4.60	4.60			4.60		4.60	4.60	4.60		
Manganese	assessment statistic (85 pctl)			14.53	152.93			6,92		3.58	2,80	4.86		
Mang	WQ Criteria	Gunnison	San Miguel	2301.02	2480.32	Upper Gunnison		1407.79	Lower Gunnison	1960.73	2187.86	1986.99		
Lead	assessment statistic (85 pctl)	้บี	Sar	0.00	0.43	Uppei		0.00	Fower	00-00	00.00	0.00		
	WQ Criteria			7.33	9.26			1.49		4.41	6.25	4.60		
Copper	assessment statistic (85 pctl)			0.00	5.61			0.00		0.68	0.00	1.16		
č	WQ Criteria			21.03	25.50			5.96		13.95	18.48	14.44		
Cadmium	assessment statistic (85 pctl)			0.00	0.27			0.00		0.00	0.00	0.00		
Cad	wQ ^a Criteria			06.0	1.07			0.30		0.63	0.80	0.65		
	Monitoring Locat on			Tabeguache	Waterfall		Soap	Upper Taylor		Big Dominguez	Escalante	Little Dominguez	Potter	Roubideau

Site Update Pride of the West Mill



Operational Period

May 21-22, 2021

Current Situation

On May 11, 2021, the Colorado Division of Reclamation, Mining and Safety (DRMS) inspected several structures at the former Pride of the West mill. This inspection identified numerous drums, bags, and containers in various states of integrity. In addition, an estimated 44 drums of sodium cyanide were discovered. Sodium cyanide reacts with acids and water to form hydrogen cyanide, a very toxic gas.

On May 17, 2021, the Colorado Department of Public Health and Environment (CDPHE) notified EPA of their concern for unsecured chemicals at the Site and requested assistance.

EPA deployed a response team to the Site on May 21, 2021. This action is not connected to any planned or ongoing remedial work at the Bonita Peak Mining District Superfund Site. That Team is currently conducting a removal evaluation at the Site. This removal evaluation is expected to be completed by May 28, 2021.

Site Description

The Pride of the West mill facility is located approximately four miles to the northeast and upstream of Silverton, Colorado along the Animas River. The mill facility is not in operation and consists of several structures situated within a steep river valley along Animas Forks Rd/Rt. 2.

Site Objectives

- Safety of the public and response personnel is top priority.
- Assess and stabilize the source area to prevent the incident from worsening.
- Minimize or, if possible, eliminate threats to human health and/or the environment posed by the release/discharge.
- Provide timely and accurate communication of response information to the public, on-site media, and affected stakeholders.

Safety Message

EPA will adhere to all CDC and local recommendations pertaining to COVID-19 during the site work.

All relevant safety precautions will be followed when conducting the assessment of unknown drums/containers. Many containers are reported to be corrosive and are leaking. Possible Asbestos-Containing-Material was noted in at least two buildings (with at least one building reported to have damaged/flaking material).

Operational Period Objectives

EPA's Operational Objectives from May 21-22, 2021 were to:

- o Deploy response resources.
- Make initial entries into the structures identified by DRMS and determine conditions.
- Secure the Site to prevent access to buildings containing drums and containers.
- Establish public website and reporting process to keep stakeholders and the public informed.

Current Activities

EPA deployed 2 On-Scene Coordinators (OSCs), 2 ERRS Contractors and 3 START Contractors to the Site on May 21, 2021. The Team stationed a communications trailer at the Site and conducted a brief reconnaissance of the area without entering any of the structures.

On May 22, 2021 EPA entered the Leach Plant, Mill and Laboratory. EPA removed 4 locks in total and opened several doors to ventilate each building. START conducted a screening level assessment of air quality and physical hazards. EPA subsequently entered each of these buildings with a larger group and verified numerous drums, bags, and containers in various states of integrity. At one location in the Mill, caustic material from several drums was observed to be leaking and corroding steel support beams in a floor separating two levels.

The weather was cool and rainy all day. Initial observations indicated that water pooled in the basement of the Mill building and was likely the result of a leaking drainpipe from the roof as opposed to a groundwater source.

All locks damaged by EPA during entry and ventilation were replaced. EPA also added a lock to one door at the Mill that did not exist to secure the Site.

Planned Activities (May 23-26)

- Determine if additional drums and containers exist in the remaining structures at the Site.
- Inventory all drums and containers at the Site.
- Determine the contents of drums and containers using existing labels to the extent practical and obtain relevant safety documentation from manufactures.
- Perform HazCat analyses to determine the properties and compatibility of those drums or containers with unknown or questionable contents.
- Segregate drums and containers within each building according to compatible chemical properties (aclds vs bases for example).
Colorado Tire Recyclers, LLC 5101 Columbine St. Denver, CO 80216 303-853-0789

May 6, 2021

San Juan County Commissioner Austin Lashley Scott Fetchenhier Ernest Kuhlman

Re: Proposed Help to Alleviate Abandoned and Excessive Waste Tires and Wood Debris

Dear Board of Commissioners:

Approximately 315 million tires wear out in the U.S. every year. In Colorado alone 7.5 million tires are replaced. Where do many go? Colorado leads the country with waste dumps including the largest waste tire monofil in North America. We know every county in Colorado has needs with abandoned waste tires and we are here to support the State of Colorado and your County. Colorado Tire Recyclers, LLC is a waste tire recycling company operated by Teresa Immel, the President and Manager. We have been in operation for over 15 years and have recycled over 100 million waste tires. Quoting Lt. Rodney Sherrod of the Denver Fire Dept., "Your company is providing a great service in reallocating tires for a second life and keeping them out of salvage yards as well as preventing fires."

If your county has any issues with abandoned waste tires, we provide an efficient and effective clean-up process for either a state or county funded clean-up or funded by the individual property owners. The cleanup process would be the removal of waste tires to our recycling facility in Denver or onsite tire shredding and removal to local landfills for utilization as Alternative Daily Cover (ADC) and beneficial end use.

With the severe fires last year and ongoing concerns with another severe fire season, we also provide clean-up service for abandoned or fire scarred wood and debris. This wood remains a fire issue and will not decompose for 10-12 years. Our shredder will reduce it to chips that will decompose in less than 2 years. If your county does not have an ongoing program that promotes defensible property and you are aware of any potential fire issues as a result of abandoned or dangerous wood debris, our shredder can reduce it to recycled mulch. Contact us with any questions. We are here to help.

Sincerely,

Teresa Immel President and Manager Greg Morck Executive VP Operations



Willy Tookey <admin@sanjuancolorado.us>

Ironhorse Bicycle Classic Race UPDATE! It is this coming Saturday May 29th Memorial Day Weekend.

1 message

chamber@silvertoncolorado.com <chamber@silvertoncolorado.com> To: chamber@silvertoncolorado.com Sun, May 23, 2021 at 5:16 PM

Hello Chamber members,

I have received an update from Ironhorse Bicycle Classic Race Director Gaige Sippy just now for next Saturday May 29th on Memorial Day Weekend!

- We have 875 signed up for the Silverton Race and expect 30 plus more this week
- We normally have 2600 riders coming to the Silverton Race but due to COVID limitations, lack of training days, travel hesitancy and the general unknowns we are only seeing a 1/3 of the usual riders.
- They are not providing riders return bus service this year so we may see a high influx of racers on Friday May 28th coming into town to leave a vehicle.
- Highway 550 SOUTH will be closed from Purgatory to Silverton on Saturday May 29th from 8:30am 1:30pm.
- Next year in 2022 will be our 50th Anniversary and they expect it to be the biggest race yet and a full week of events around Ironhorse!
- Ironhorse is a series of 4 days of events and races with Silverton being the main Saturday Race/Citizens Tour. All the other races are held in Durango and will continue this year but also with limited ridership. There is a mountain bike race, gravel ride and kids race all happening throughout the weekend.
- There will be no "Party in the Park" this year like normal but Memorial Park will continue to serve as the finish line.
- No food or services will be provided in the park this year except finish line, announcer, a Vaccination Van from Animas Surgical in Durango available to anyone and porta potties.
- I am the Silverton Contact for the race and retain the Ironhorse Bicycle Classic Board seat for our community so if you have comments, questions or concerns please let me know.
- Last but not least we always hire Open Snow to do a detailed weather forecast for the week and all looks good so far!! If there were a storm, we would receive the final call on the race about 4:30am and if there was a need to cancel I would send out email blast at that time.

Thank you,

DeAnne Gallegos

Executive Director

Silverton Chamber of Commerce

414 Greene St Silverton CO 81433 | Po Box 565

Office: 970 387-5654 | Cell: 970 403-9951

Silvertoncolorado.com | chamber@silvertoncolorado.com

The Mountains are Calling

Press Release: updated May 24, 2021 (original May 21, 2021)

Joint Statement of the

Ute Mountain Ute Tribe (UMUT)

and

Dolores Water Conservancy District (DWCD)

The Dolores River is **once again** headed toward record low runoff, on the heels of an abysmal 2020 water year.

The Dolores Water Conservancy District and the Ute Mountain Ute Tribe, primary users of Dolores water flow, said this circumstance places the burden of two horrible years on the Dolores Project users, who will only see a 5 - 10% supply.

The shorted water deliveries will fall on the Ute Mountain Ute Tribe Farm and Ranch Enterprise, DWCD full-service irrigators in Montezuma and Dolores Counties, and the downstream fishery, according to Ken Curtis, general manager of DWCD.

Given the natural *precipitation* cycle for Colorado, these conditions *began* forming last fall when the monsoon rains failed to deliver fall moisture to replenish river flows and soil moisture for the 3rd year in a row. "These water deficits dried up smaller tributaries in the upper watershed and sent us into the winter with an *enormous* hole to fill from the first spring snowmelt before starting the runoff. Locally we were lucky to avoid major wild fires last fall in the San Juan Mountains, *Curtis explained*.

The winter likewise failed to deliver at *historical average*, peaking out with only 83% of normal snowpack on April 1st. Another dry windy warm spring further depleted the snowpack to where current forecasts project 25% of the historical average, only 74,000 AF for McPhee that normally runs 250,000 through *its delivery system* to all users. Conditions may continue to degrade given recent weather and current forecasts. That places 2021 dropping towards the 4th worst runoff after 1977, 2018 and 2002.

With 2020 *providing the seventh* worst recorded runoff, McPhee Reservoir carryover was only 4% of the active capacity.

Curtis said the result will be no supplemental irrigation supplies available to the senior water rights. The Project irrigators are cutting back irrigated acres by 90% to most efficiently use the extremely low water supplies and will run partial season irrigation at best on those limited acres. Curtis is also working closely with Dove Creek Mayor Brett Martin to keep their water supply reservoir full from DWCD irrigation canals that won't run all summer.

The downstream fishery will see flows of 10 CFS for a few months that *will then* drop back to a trickle of 5 CFS for the remaining 8 months until next spring. The lower river faces significant trout and native fish populations loses.

"Financial impacts will be hard on all agriculture producers. *The Tribe's Farm* and Ranch Enterprise *will* limit employment and cut back buying farm supplies drastically, with longer term impacts, "*DWCD Board President Bruce Smart said. "The* recovery for producers, the UMUT, and the District *will take years.* The fishery impacts may not be known until 2022, but the river will *likely* experience flows similar to pre-McPhee."

Long time farmers have seen this before, after 2002 it took seven years to financially recover and this year looks worse. Farmers expect a significant hit to their pocket books that will trickle through the local economy. It's too early to tell what crops will make it through the season, but without some rain many farmers expect significant loss to their perennial stands. If next year's supply doesn't improve Curtis worries "that multigenerational farm families may face bankruptcy."

"At stake is the Ute Mountain Ute Tribe's highly productive and efficient 7,600 acre farm. With a 10% water supply from the Dolores Project this year we are limited to growing corn for our Bow and Arrow Brand, and protecting our highest value alfalfa fields," according to **Manuel Heart, Chairman of the Ute Mountain Ute Tribe**. "We have spent 25 years developing productive crops on 109 center pivot fields and a trained workforce of Tribal members. With most of our fields fallowed and very little crop income, everything that we have developed is at risk. We intend to work closely with DWCD and the Bureau of Reclamation to protect the continued viability of our farm. Our participation in the Dolores Project is a result of the Colorado Ute Indian Water Rights Settlement and we will exercise these Settlement Rights in the fullest to protect our Farm and Ranch Enterprise and keep the Dolores Project viable", concluded Chairman Heart.

DWCD and the Ute Mountain Ute Tribal leadership have discussed the drought impacts with the Bureau of Reclamation, and potential drought impact assistance is being explored.

Both Montezuma and Dolores Counties will be asked to consider emergency drought declarations next to raise these concerns to the State level where the District and the Tribe will also work with the State of Colorado in coordinating any drought response.



United States Department of the Interior Office of Hearings and Appeals Interior Board of Land Appeals 801 N. Quincy St., Suite 300 Arlington, VA 22203

703-235-3750

703-235-8349 (fax)

May 25, 2021

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IBLA 2021-16

SAN JUAN CITIZENS ALLIANCE AND BOARD OF COUNTY COMMISSIONERS OF SAN JUAN COUNTY DOI-BLM-CO-F070-2019-0008-EA Travel Management Plan Petition for Stay Denied

<u>ORDER</u>

San Juan Citizens Alliance and the Board of County Commissioners of San Juan County (Appellants) appealed one portion of a September 21, 2020, Decision Record (DR) issued by the Gunnison (Colorado) Field Office, Bureau of Land Management.¹ Specifically, Appellants appealed the portion of the DR that would authorize motorized use on the Minnie Gulch Trail (Trail) once it is re-routed.² After the appeal was fully briefed, Appellants filed a petition for stay seeking to prevent construction of a new route.³ As explained below, Appellants have failed to demonstrate the likelihood of immediate and irreparable harm if a stay is not granted. We, therefore, deny Appellants' petition for stay.

BACKGROUND

The DR approved implementation of Alternative C of the 2020 Silverton Travel Management Plan Environmental Assessment (EA), as modified.⁴ The EA analyzed the environmental effects of designating various motorized, mechanized, foot, and equestrian roads and trails within the Silverton Travel Management Area (STMA) to

¹ See Decision Record, Silverton Travel Management Plan (Sept. 21, 2020), https://eplanning.blm.gov/public_projects/122941/200314356/20026321/250032525/ Silverton%20TMP%20Signed%20Decision%20Record.pdf (last visited May 24, 2021) (DR).

² Notice of Appeal at 1 (filed Oct. 21, 2020).

³ Petition for Stay at 1-2 (filed Apr. 27, 2021) (Petition).

⁴ DR at 1.

comply with the Tres Rios Resource Management Plan.⁵ The STMA covers approximately 67,000 acres of interspersed private and public lands in San Juan County, Colorado.⁶

As relevant here, the DR changed the authorized use on the Minnie Gulch Trail (Trail) from "Singletrack Mechanized" to "Singletrack Motorized."⁷ The effect of this change is that motorized dirt bikes and e-bikes would now be allowed on the Trail, along with the previously authorized mountain bike, foot, and horse use.⁸ This change would occur *only* after the Trail is re-routed to avoid the Ute Trail⁹ and to prevent the Trail from overlapping with the Continental Divide National Scenic Trail (CDNST):

This change in authorized use will only occur after a sustainable alternate alignment applying the Project Design Features detailed in Appendix E of the [EA] is located, cleared, and constructed. This alternate route will avoid the Ute Trail located in the Minnie Gulch Valley and cross the [CDNST] at a perpendicular angle. This route will be built on the slopes above the Ute Trail and BLM will direct all uses to use this new trail. The Ute Trail itself will remain open to foot traffic only.^[10]

⁵ Environmental Assessment, Silverton Travel Management Plan, DOI-BLM-CO-F070-2019-0008-EA at 8 (Sept. 2020),

https://eplanning.blm.gov/public_projects/122941/200314356/20026322/250032526/ Silverton_TMP_Final_EA.pdf (last visited May 24, 2021) (EA).

⁶ EA at 5; *id.* at 31 (map depicting STMA); Finding of No Significant Impact, DOI-BLM-CO-F070-2019-0008-EA at 2 (Sept. 21, 2020),

https://eplanning.blm.gov/public_projects/122941/200314356/20026319/250032523/ Silverton%20TMP%20Signed%20FONSI.pdf (last visited May 7, 2021) (FONSI).

⁷ See DR at 1-2; EA at 22 (stating that the previous authorized use on the Trail was "Singletrack Mechanized").

⁸ See EA at 29 (describing "Singletrack Mechanized" and "Singletrack Motorized"); *id.* at 32-33 (describing various classes of e-bikes).

⁹ See EA at 58 (stating that the Ute Trail "is an important remnant of Ute travel routes in the high altitudes of the San Juan Mountains" and is eligible for listing on the National Registry of Historic Places for its significance to the Southern Ute, Ute Mountain Ute, and Northern Ute).

¹⁰ DR at 1-2; *see* EA at 22 (stating that re-routing will "avoid cultural sites" and that a segment of the Trail is "coincident with the CDNST"); *id.* at 23 (map depicting the Trail and the CDNST).

On October 21, 2020, Appellants filed their notice of appeal.¹¹ On April 27, 2021, fearing that construction of the new route could "begin as soon as July 1, 2021," Appellants filed their petition for stay.¹² On May 6, 2021, BLM timely opposed the petition.¹³ On May 14, 2021, Appellants filed a reply.¹⁴ Yet, our regulations do not provide for the filing of a reply at the petition-for-stay stage.¹⁵ This is because we seek to rule on petitions for stays within the 45-day period before a decision becomes effective,¹⁶ and allowing replies given that short time period would be "impracticable."¹⁷ However, because Appellants did not file their petition for stay "together with" their notice of appeal, the 45-day period does not apply.¹⁸ Accordingly, we will exercise our discretion and consider Appellants' reply, notwithstanding that they failed to seek leave to file it.¹⁹

ANALYSIS

I. The Four Stay Criteria.

An appellant seeking a stay must demonstrate that a stay is warranted based on four criteria: (1) the relative harm to the parties if the stay is granted or denied; (2) the likelihood of the appellant's success on the merits; (3) the likelihood of immediate and irreparable harm if the stay is not granted; and (4) whether the public interest favors

¹¹ See Memorandum from BLM to IBLA Transmitting Notice of Appeal (Nov. 2, 2021). ¹² Petition at 1.

¹³ BLM's Opposition to Petition for Stay (filed May 6, 2021) (Opposition).

¹⁴ Reply Brief to BLM's Opposition to Petition for Stay (filed May 14, 2021) (Reply).
¹⁵ See 43 C.F.R. § 4.21(b)(3) (2019).

¹⁶ 43 C.F.R. § 4.21(b)(4) (2019) (providing for a 45-day period); *see David M. Burton*, 11 OHA 117, 122-25 (1995).

¹⁷ Department Hearings and Appeals Procedures, 58 Fed. Reg. 4939, 4942 (Jan. 19, 1993) (stating that, because of the 45-day period, it "would be impracticable" to allow for the filing of replies at the petition-for-stay stage).

¹⁸ See 43 C.F.R. § 4.21(a)(2) (2019) (stating that "[a] decision will become effective on the day after the expiration of the time during which a person adversely affected may file a notice of appeal unless a petition for a stay pending appeal is filed together with a timely notice of appeal"); *id.* § 4.21(a)(3) (stating that a decision will become effective if a petition for a stay filed together with a timely notice of appeal is not ruled on within the time specified in 43 C.F.R. § 4.21(b)(4)).

¹⁹ See W. Watersheds Project, 184 IBLA 106, 117 (2013) (ruling that a motion for leave to file is required when a party wishes to make a filing that is not provided for in our regulations); see also Red Thunder, Inc., 117 IBLA 167, 172-73 (1990) (ruling that, in the absence of prejudice, we will generally not punish a party for a procedural mistake).

granting the stay.²⁰ If the appellant fails to satisfy any one of these criteria, the petition for stay must be denied.²¹

II. Appellants Have Not Demonstrated That A Stay Is Warranted.

We focus our analysis on the third regulatory criterion—the likelihood of immediate and irreparable harm if a stay is not granted. To satisfy this criterion, Appellants must demonstrate that the harm if a stay is not granted is both immediate and irreparable.²² Bare allegations of harm are not sufficient,²³ and Appellants cannot meet their burden of proof under this criterion through allegations that are "unsupported, vague, or speculative."²⁴ In other words, Appellants must prove that the harm is likely to occur if a stay is not granted; not that they only fear the harm may occur at some indefinite time in the future.²⁵

In an effort to satisfy this criterion, Appellants argue they will suffer immediate and irreparable harm this summer because "post-decision emails demonstrate BLM's intent to move forward quicky with trail construction this summer once the trail is surveyed and snow conditions permit construction."²⁶ Appellants further argue that this construction would cause irreparable harm by impacting the "fragile tundra ecosystem."²⁷

Notwithstanding the post-decision emails, the evidence shows that construction of the new route is not imminent. The DR emphasized that the new route would be subject to the project design features in Appendix E of the EA.²⁸ These project design features require, among other things, that all new trail construction "be designed to avoid historic properties."²⁹ Thus, while a proposed location for the new route has been marked on the

- ²⁷ *Id.* at 5.
- ²⁸ DR at 2.
- ²⁹ EA at 87.

 $^{^{20}}$ 43 C.F.R. § 4.21(b)(1) (2019); *see id.* § 4.21(b)(2) (stating that the appellant bears the burden of proof).

²¹ Friends of Animals, 188 IBLA 394, 397 (2016).

²² W. Watersheds Project, 192 IBLA 72, 85 (2017).

²³ Id.

²⁴ Heather Bromm, 193 IBLA 152, 157 (2018).

²⁵ Id.

²⁶ Petition at 7.

ground,³⁰ the final location of the new route is dependent "upon on-the-ground field visits that are expected to take place during the summer field season of 2021 by BLM specialists, including a qualified archaeologist, and in coordination with stakeholders."³¹ Even after the final location of the new route is determined, no construction will take place until: (1) a memorandum of agreement (MOA) is entered into among BLM, the State Historic Preservation Office, the Southern Ute, Ute Mountain Ute, and the Ute Indian Tribe of the Ouray and Uintah Reservation;³² and (2) the mitigation requirements agreed to in the MOA are satisfied.³³ Given the number and contingent nature of these steps, BLM states that it is not likely that any construction would occur before October 2021.³⁴

Appellants do not dispute that these additional steps need to be taken.³⁵ Instead, Appellants argue that these steps may be completed before October 1, 2021, because completion of the steps is "entirely within BLM's control."³⁶ We do not agree. Given that there will be four other parties to the MOA, when the MOA may be finalized is not "entirely within BLM's control." Nor is it "entirely within BLM's control" when the mitigation requirements agreed to in the MOA may be deemed satisfied.

Accordingly, we find that it is not likely that any construction would occur before October 2021. Yet, by that time, weather conditions would most likely prevent any construction. Indeed, as Appellants concede, construction in the San Juan mountains can

³⁰ See Petition at 7; Opposition, Attached Declaration of Brady Owens, Acting Field Manager ¶ 7 (dated May 4, 2021) (Owens Decl.).

³¹ Owens Decl. ¶ 7.

³² *Id.* ¶ 8.

³³ *Id.* ¶ 9; *see* FONSI at 6 ("All ground disturbing activities are subject to Section 106 of the National Historic Preservation Act (NHPA). Under the provision of Section 106 and its implementing regulations (36 CFR 800), the BLM is required to identify, evaluate, and mitigate effects to historic and prehistoric properties within the analysis area for any undertaking.").

³⁴ *See* Owens Decl. ¶ 11 ("Given the number of tasks that remain to be completed before any construction or ground disturbing activities in Minnie Gulch take place, BLM does not consider it likely that [construction] would occur before October of 2021 or the summer of 2022.").

³⁵ *See* Reply at 2-3.

³⁶ *Id.* at 3.

occur only during the summer months—July through September.³⁷ Thus, even if all the steps necessary for construction were completed by October 2021, weather conditions would likely prevent any construction until July 2022. Therefore, we conclude that the earliest any construction is likely to occur is July 1, 2022.³⁸

As the threat of the alleged harm is more than one year away, Appellants have not shown a likelihood of immediate harm to justify a stay.³⁹ At best, Appellants have alleged only the possibility of future irreparable harm. However, both immediate and irreparable harm are required to satisfy this stay criterion.⁴⁰ As Appellants have not satisfied this criterion, there is no need to consider the other stay criteria because their petition for stay must be denied.⁴¹

CONCLUSION

For the foregoing reasons, we deny Appellants' petition for stay. This denial does not preclude Appellants from filing a new petition for stay if the threat of the alleged harm is likely to become imminent.



Digitally signed by STEVEN LECHNER Date: 2021.05.25 11:56:35 -04'00'

Steven J. Lechner Deputy Chief Administrative Judge

³⁷ Petition at 1 (stating that "[c]onstruction season in the San Juan mountains is approximately three months long – July through September – due to snowy conditions the rest of the year"); *id.* at 2 (stating that the Trail extends from 11,600 feet elevation to "12,800 feet atop the Continental Divide"); *see* EA at 53 (stating that the snow-free months in the STMA are June to October).

³⁸ Petition at 1 (acknowledging that July 1st is the earliest that construction could occur in any particular year).

 ³⁹ See W. Watersheds Project, 192 IBLA at 85-86 (ruling there was no likelihood of immediate harm to warrant the issuance of a stay when there were additional steps to be completed by BLM before ground-disturbing activities could occur).
 ⁴⁰ Id. at 85.

⁴¹ Wallace Forest Conservation Area Advisory Comm., 191 IBLA 338, 344 (2017) (ruling that the failure to satisfy one stay criterion eliminates the need to consider the other stay criteria because the petition for stay must be denied).

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Willy Tookey <admin@sanjuancolorado.us>

Silverton OHV ordinance & parking

1 message

Linda Test <Linda.Test@historictours.com> To: "sanjuancounty@frontier.net" <sanjuancounty@frontier.net> Fri, May 21, 2021 at 1:24 PM

Silverton's Mayor Fuhrman recommended I check with you regarding my questions.

Silverton has now banned OHVs from city streets effective June 20, 2021. We have a 3 week trip planned for September, and transport our OHV with a toy hauler RV and pick up truck. With a bumper pull toy hauler, we cannot bring a flatbed trailer for the OHV as we would exceed multiple states' laws on overall length, and will need to move it with the toy hauler.

We now cannot drive from our campground to the trails. Where in the county near Silverton may we legally park our combo (approximately 60 ft in length)? Is it legal to park along side any county road where there is space? Is there designated parking? With the parking, is there sufficient space for multiple vehicles to turn around safely?

Or, are you aware of transport services to pick up our OHV in the morning and drop us off outside of the city limits? The mayor indicated he asked that their OHV taskforce convene to propose solutions to mitigate some of the complications, but has no answers to questions at this time.

We have enjoyed visiting the San Juan's over the last few years, and were taken by surprise with the new ordinance. Before we cancel our trip, we are hoping there is a solution and answers to our questions.

Thank you,

Linda Test

Linda Test

305-797-7479

Itest@historictours.com

RESOLUTION 2012-04

A RESOLUTION ALLOWING THE USE OF OFF-HIGHWAY VEHICLES ON CERTAIN ROADS WITHIN THE BOUNDARIES OF SAN JUAN COUNTY

WHEREAS, Colorado Revised Statutes 33-14.5-108(1)(f) allows the Board of Commissioners the right to declare which County roads may be used by off-highway vehicles (OHVs); and

WHEREAS, there is an increasing demand by OHV users for San Juan County to allow the use of OHVs on roads within the County; and

WHEREAS, the Board of Commissioners has determined that the citizens of San Juan County may benefit both socially and economically by the Board allowing the use of off-highway vehicles on certain County roads; and

WHEREAS, it is the desire of the Board of Commissioners to designate certain roads in the County as allowable for OHV use.

NOW THEREFORE, BE IT RESOLVED by the Board of Commissioners of San Juan County that all County roads may be used by off-highway vehicles, with the following exception:

- 1. County Road 6, also known as the Shrine Road, shall not be open to off-highway vehicles.
- 2. County Road 34 and 34A also known as the Cemetery Road and the Water Line Road.
- 3. OHVs shall be allowed to operate on County Road 110A provided that the Town of Silverton also allows for OHV use on the portion of CR 110A that travels through their jurisdiction.

BE IT FURTHER RESOLVED that for the purpose of this resolution the definition of "off-highway vehicle" shall be the definition found in Colorado Revised Statutes 33-14.5-101, a copy of which is attached to this resolution.

BE IT FURTHER RESOLVED that Resolutions 04-7 is hereby repealed.

READ, PASSED AND ADOPTED this 28th day of March, 2012 by the Board of Commissioners of San Juan County, Colorado.

Ernest F. Kuhlman

Attest:

Terry S. Rhoades

Ladonna Jaramillo Clerk and Recorder

Peter C. McKay

Colorado Revised Statutes 33-14.5-101 (3)

"Off-highway vehicle" means any self-propelled vehicle which is designed to travel on wheels or tracks in contact with the ground, which is designed primarily for use off of the public highways, and which is generally and commonly used to transport persons for recreational purposes. "Off-highway vehicle" does not include the following:

(a) Vehicles designed and used primarily for travel on, over, or in the water;

- (b) Snowmobiles;
- (c) Military vehicles;
- (d) Golf carts;
- (e) Vehicles designed and used to carry disabled persons;
- (f) Vehicles designed and used specifically for agricultural, logging, or mining purposes; or
- (g) Vehicles registered pursuant to article $\underline{3}$ of title $\underline{42}$, C.R.S.





Willy Tookey <admin@sanjuancolorado.us>

Fwd: Request for Signature - CDPHE Contract 2019*0131 AMD#1 7/1/2021 Start San Juan LHA Tob STEPP A35 CTI

5 messages

Becky Joyce <director@sjcph.org>

Wed, May 19, 2021 at 10:32 AM

To: Willy Tookey <admin@sanjuancolorado.us>, Scott fetchenhier <sjcom.fetch@gmail.com>

Hi Willy and Scott,

This is a contract from CDPHE STEPP (Tobacco Prevention grant) for Scott to e-sign. Will you be able to do this or do you want me to help with it? It takes just a few minutes and the contract appears the same as it's been previous years. The total amount is \$36, 869 for FY21.

Thanks!

Becky Joyce, BSN, RN San Juan County Public Health Director 1315 Snowden St. Silverton, CO 81433 (970) 387-0242 (970) 387-5036 (Fax)

------ Forwarded message ------From: **Amy Delgadillo via DocuSign** <dse_NA3@docusign.net> Date: Tue, May 18, 2021 at 1:54 PM Subject: Request for Signature - CDPHE Contract 2019*0131 AMD#1 7/1/2021 Start San Juan LHA Tob STEPP A35 CTI To: Scott Fetchenhier <director@sjcph.org>



COLORADO

Department of Public Health & Environment

Army Delgadillo sent you a document to review and sign.

REVIEW DOCUMENTS



Amy Delgadillo amy.delgadillo@state.co.us

You are receiving a contract from the Colorado Department of Public Health and Environment (CDPHE) for review and signature.

Please sign the contract by within 10 days of receipt.

This email contains a secure link to a legal document. Please do not share this email or link with others.

If you are not authorized to sign legal documents for your organization, please click "other actions," select "assign to someone else," and enter the individual who is authorized.

If you have any questions or concerns, please contact Andrew Yancey at andrew.yancey@state.co.us before declining to sign.

CDPHE does not authorize work to begin until you receive the notification that the contract is fully executed.

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SAN JUAN COUNTY

PO Box 250 Silverton, CO 81433 970-387-5522 PO Box 466 Silverton, CO 81433 970-387-5766

Date: May 22, 2021. For: May 26 Board of County Commissioners Meeting. From: Town/County Planning Director. Regarding: Some of the Planning Department Work During the Past Two Weeks.

Recent County Projects

- The Planning Director & Building Inspector visited a Cunningham Gulch site on May 20.
- The Planning Director & Building Inspector visited a site on Ophir Pass on May 17.
- The Planning Director is reviewing a County Improvement Permit Application for a proposed residence on the Shrine Road.
- The Planning Director is reviewing a County Special Events Permit Application for the proposed Bent Elbow Poker Run.
- On May 24 the Planning Director has a meeting with the owners of six overlapping mining claims on CR 20/20A.
- County pre-application work is occurring for many sites including: a proposed residence in Twilight Meadows, proposed townhomes at Cascade Village, proposed residence in Know Your Neighbor, proposed subdivision at Purgatory, and some misc. mining claim proposals.
- A Land Use Permit Application is being reviewed for a DRMS mining reclamation project.
- An incomplete application was received for a proposed gate/fence/signs near Idaho Gulch.

• Other ongoing County work, including lots of calls/emails about RVs, septics, mining claims. <u>Recent Town Projects</u>

- The Town Board approved the Proposed Murphy Residence at 14th & Bluff on May 10.
- The Town Board approved a citizen petition Ordinance banning OHVs in Town on May 18. This may cause some additional OHV impacts/trailer/parking/camping issues in the County.
- The Town Board will have a Work Session on May 24 to discuss affordable housing.
- On May 24 the Town Board will briefly discuss in-Town seasonal employee RV housing.
- The Town Board has been interviewing Town Administrator and Town Attorney applicants.
- The Planning Commission will meet on June 15 to review several applications.
- An application for a proposed eightplex condo structure near 14th & Cement was received.
- A vacation rental application was received for an existing residence near 11th & Reese.
- An application for a Reese Street proposed ADU (accessory dwelling unit) was received.
- Emails inquiring about development on Town Lots (and County parcels to a lesser degree) are being received at a rapid pace by the Town/County Building & Planning Departments.
- Several sites with proposed infrastructure (at 7th/8th, Snowden/Bluff) are being reviewed.
- I am completing a Job Description for a Town Planning Dept. part time clerical trainee.
- Applications for changes to downtown historic buildings are being prepared by applicants.
- There is a lot of planning work/incomplete applications for Town, indicating a busy summer,
- County Commissioners and citizens can contact me with questions about the Town/County Planning Department at: ladair@silverton.co.us or (970) 387-5522.

Page 1 of 1, Staff Report for BOCC, L. Adair, 5/22/21.