

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
STATEMENT OF BASIS**

PERMITTEE: Crossfire Aggregate Services

FACILITY NAME AND ADDRESS: Crossfire-Bonds Gravel Pit  
613 County Road 213  
Durango, CO 81303

PERMIT NUMBER: CO0035024

RESPONSIBLE OFFICIAL: Nathan A. Barton, Environmental and  
Permitting Compliance Engineer

FACILITY CONTACT: Nathan A. Barton (970)564-1380

PERMIT TYPE: Minor Individual Industrial

TYPE OF TREATMENT: Lagoon

FACILITY LOCATION: Section 36 of Township 33 N, Range  
10 & Section 1 of Township 32 N  
Range 10W, La Plata County,  
Colorado  
  
Latitude 37.0520° N, Longitude  
107.8862° W

DISCHARGE LOCATION(S): Outfall 001  
Latitude 37.051589° N  
Longitude 107.893444° W  
  
Outfall 002  
Latitude 37.050658° N  
Longitude 107.889847° W  
  
Outfall 003  
Any location upstream of Outfall 001  
or Outfall 002 where wastewater  
lagoon dewatering is conducted.

## 1. INTRODUCTION

This statement of basis (SoB) is for the issuance of a National Pollutant Discharge Elimination System (NPDES) permit (the Permit) to the Crossfire Aggregate Services, for the Crossfire-Bonds Gravel Pit (Facility). The Permit establishes discharge limitations for any discharge of water from the facility outfalls. The SoB explains the nature of the discharges, and EPA's decisions for limiting the pollutants in the wastewater, as well as the regulatory and technical basis for these decisions.

The Facility is located within the external boundaries of the Southern Ute Reservation. EPA Region 8 is the permitting authority for facilities located in Indian country, as defined in 18 U.S.C. § 1151, located within Region 8 states and supports implementation of federal environmental laws consistent with the federal trust responsibility, the government-to-government relationship, and EPA's 1984 Indian Policy.

## 2. BACKGROUND INFORMATION

Crossfire Aggregate Services, LLC headquarters is located in Ignacio, Colorado. The company was founded in 2001 and provides services in the following areas: oil/gas construction and commercial construction; well servicing, staffing services, hauling services, reclamation services, commercial construction and professional services.

Activities intended to be conducted at the Facility will be mining and processing aggregate. Crossfire Aggregate Services anticipates mining and reclaiming the Facility in 10 phases. Mining phases range from 4-28 acres per phase and mining activity is expected to last approximately 2 years per phase. At full capacity, the operations and processing area activities will consist of a shop area, concrete batch plant, asphalt hot plant, scale house, and office. The estimated lifespan of the pit will be 35 years. Initial production is expected to ramp up over 3 years to 250,000 tons per year with a possible maximum output of 300,000 tons annually depending on demand.

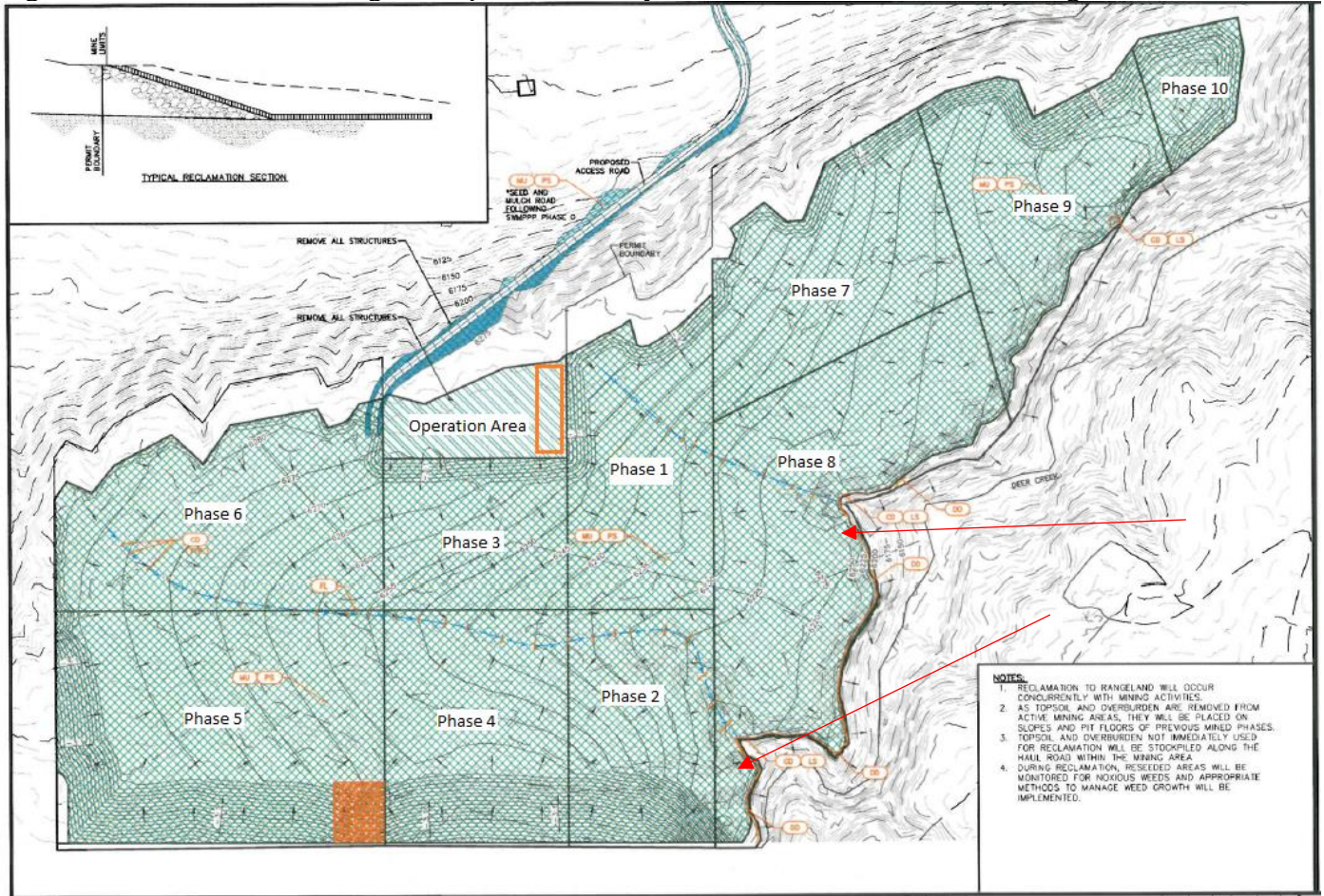
The Facility will be located on approximately 220 acres of rangeland located 1 mile northwest of the intersection of US Hwy 550 and La Plata County Road 213 near Bondad, Colorado. The facility will be located at an elevation of approximately 6,300 feet above mean sea level on a bluff above the Animas River valley, with no substantially higher hills in its immediate vicinity. It is located in a rural area used primarily for livestock grazing and other agricultural and industrial uses.

An aggregate processing plant will be located within the mining areas and will contain stockpiles and portable equipment necessary to support the plant operations. Sand and gravel will be the primary products being mined for use in construction aggregate sales and concrete production. The deposit will be dry mined with diversion berms constructed around the perimeter of each mining phase prior to commencing mining operations. Stormwater and wastewater will eventually discharge to Deer Creek from Outfall 001 (37.051589° N, 107.893444° W) and Outfall 002 (37.050658° N, 107.889847° W).

Overburden will be stockpiled along the southern boundary of the mining area until a phase is depleted of its gravel resource after which the overburden will be placed back into its respective removal areas and reclamation grading started. Per the landowner's request, the reclaimed areas would be seeded with native vegetation with the end use being rangeland for future calving operations.



Figure 2-2 – Overhead drawing of the planned facility. North is to the left of the drawing.



## 2.2. Treatment Process

The Facility will use lagoons for treatment of process generated wastewater and stormwater captured during sand and gravel mining, crushing, and washing operations. As each phase is mined, the lagoons will be emptied and moved or otherwise modified to accommodate the mining activities. The main method of treatment will be settling since the stormwater and wastewater are not expected to need biological treatment. The Facility will construct diversion dikes and constructed flow lines to contain process wastewater and stormwater from the process activities. The pit floors will contain the mobile rock crusher and wash plant. Temporary on-site portable toilets will be utilized while a septic system is installed for long-term site use. Sanitary wastewater is not authorized for discharge by the Permit.

Surface drainage in the proposed gravel extraction area is generally to the south and southwest. The Facility occupies a mesa top with limited surface flow entering the site. Because of the well-drained soils, infiltration of most precipitation will occur. The natural drainage-ways in the proposed excavation area are swales at the northwest end of the gravel extraction area that eventually outfall to Deer Creek to the south.

The proposed drainage plan during mining operations is to construct berms and swales to divert surface water runoff from the north around the mining phase area and discharge to Deer Creek. As new mining phases are opened, additional berms will be constructed to continue this strategy. The only water envisioned entering the pit during mining operation will be rainfall occurring within the pit itself. This volume is projected to be minimal and should not obstruct mining operations.

Two discharge outfalls are proposed for the facility. Outfalls 001 and 002 are located immediately to the southwest side of the Facility. Process generated wastewater and stormwater will flow, via the constructed flow routes, to the diversion dike, where they will be held at a rock check dam. Process generated wastewater is expected to infiltrate and evaporate, with outfalls utilized seasonally for mine dewatering to Deer Creek during precipitation and high flow periods. Where evaporation or infiltration are insufficient, mine dewatering discharges from the Facility are expected to occur periodically.

### **3. PERMIT HISTORY**

This is the second issuance of an NPDES permit for the Facility. As of the writing of this Permit operations have not commenced. An anticipated start date for operations is not available. There is no monitoring data collected from the previous permit.

### **4. MAJOR CHANGES FROM PREVIOUS PERMIT**

Below is a bulleted list of changes from the previous permit:

- Nitrite, nitrate, and phosphorus monitoring requirements have been added.
- The dissolved oxygen instantaneous minimum limit was raised to 6.0 mg/l from 5.0 mg/L.
- Nitrate and nitrite effluent limitations were developed along with a benchmark action level.
- Conditional monitoring for polycyclic aromatic hydrocarbons has been added.
- The stormwater pollution prevention plan (SWPPP) best management practice (BMP) requirements have been updated to be equivalent with the requirements of the EPA's 2021 Multi-Sector General Permit (MSGP).

### **5. WATER QUALITY CONSIDERATIONS**

#### **5.1. Description of Receiving Water**

Wastewater and stormwater discharges from the Facility will flow to Deer Creek, a tributary of the Animas River. Discharges from Outfall 001 (37.051589° N, 107.893444° W) and Outfall 002 (37.050658° N, 107.889847° W) will enter Deer Creek, then flow for approximately 1.5 miles in Deer Creek before discharging into the Animas River. The Facility and outfalls reside entirely on Fee Land within the Southern Ute Indian Reservation.

EPA and the Southern Ute Indian Tribe have not identified impairments or developed total daily maximum loads (TMDLs) for the portions of Deer Creek and the Animas River impacted by discharges from the Facility.

5.2. Water Quality Criteria and Requirements

The Facility will have two discharge locations where stormwater and process wastewater are discharged to Deer Creek, a tributary of the Animas River. The portions of Deer Creek and the Animas River impacted by the Facilities’ wastewater discharges are on Fee Land within the exterior boundaries of the Reservation. Fee Land on the Reservation does not have EPA approved water quality standards under Section 303(c) of the Clean Water Act.

Section 101(a)(2) of the Clean Water Act states, “[I]t is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water to be achieved by July 1, 1983.” To achieve this Congressional goal in the absence of Tribal water quality standards (WQS) on Fee Land within the Reservation, EPA considers the beneficial uses of the receiving waters to include aquatic life, human health, and recreation. EPA relied on CWA § 301(b)(1)(C) in establishing WQBELs based on EPA’s Section 304(a) recommended water quality criteria (WQC) to protect the uses of the receiving water(s).

In addition to the WQC, EPA has reviewed Tribal Water Quality Requirements (WQR) for the development of WQBELs. The tribal WQR were obtained from the document: “Tribal Water Quality Standards for the Southern Ute Reservation” (1996). Please note that the referenced document has not received EPA approval and to limit confusion with EPA approved WQS, will be referred to as Tribal Water Quality Requirements (WQR) for the remainder of this document. The WQR were referenced because the discharge occurs on Fee Land, which the Southern Ute Indian Tribe has designated the WQR for. The Southern Ute Indian Tribe has been approved for implementation of EPA approved Tribal WQS on Trust land but has yet to develop EPA approved WQS.

The WQR have made the designations contained in Table 1 for the receiving water.

Table 1 - WQR designated beneficial uses of the Animas River and tributaries.

<b>Stream Segment Description</b>	<b>Beneficial Use</b>	<b>Modification and Qualifiers</b>
Mainstem of the Animas River from the Southern Ute Reservation Northern Boundary to the Colorado/New Mexico border.	Aquatic Life Cold 1, Recreation 1, Water Supply, Agriculture	None
All Tributaries to the Animas and Florida Rivers including all wetlands, lakes, and reservoirs within the Southern Ute Indian Reservation except for the specific listings in segment 3 and 4.	Aquatic Life Cold 2, Recreation 2, Agriculture	None

The beneficial uses in Table 1 are defined below:

**Aquatic Life Cold 1** – Provides for protection and propagation of aquatic life normally found in waters where the summer temperature does not often exceed 20° C. Physical and Biological Criteria: pH must be between 6.5-9.0 standard units, Maximum of 20° C with a maximum of 3° C increase from permitted discharges, Dissolved oxygen minimum 6.0 mg/L, Dissolved Oxygen Minimum of 7.0 mg/L when spawning.

**Aquatic Life Cold 2** – These are waters that are not capable of sustaining a wide variety of cold or warm water biota, including sensitive species, due to physical habitat, water flow levels, or uncorrectable water quality conditions that result in substantial impairment of the abundance and diversity of species. Does not have physical and biological criteria.

**Recreation 1** – These surface waters are suitable or intended to be suitable for recreational activities in or on the water when the ingestion of small quantities of water is likely to occur. Such waters include but are not limited to those used for swimming, rafting, kayaking and water-skiing. Physical and Biological Criteria: pH must be between 6.5-9.0 standard units, Dissolved oxygen minimum 3.0 mg/L.

**Recreation 2** – These surface waters are suitable or intended to be suitable for recreational uses in or about the water which are not included in the primary contact category, including but not limited to fishing and other streamside or lakeside recreation. Physical and Biological Criteria: pH must be between 6.5-9.0 standard units, Dissolved oxygen minimum 3.0 mg/L.

**Agriculture** – These surface waters are suitable or intended to be suitable for crops usually grown on the reservation and which are not hazardous as drinking water for livestock. Physical and Biological Criteria: Dissolved oxygen minimum 3.0 mg/L. Inorganic Numeric Criteria: Nitrate must be less than 100 mg/L, Nitrite must be less than 10 mg/L.

**Water Supply** – Does not have any associated definition in the WQR. There are no known domestic water supply or industrial water supply uptakes expected to be impacted downstream of this discharge.

### 5.3. Water Quality Based Effluent limitations (WQBEL)

Using the information in Sections 5.1 and 5.2 the following WQBELs were developed for discharges from the Facility.

**pH** – The WQC are the most protective: pH between 6.5 to 9.0 standard units and will be the basis for the effluent limitations.

**TSS** – The WQC for aquatic life refers to “Quality Criteria for Water, 1986” (Gold Book) for a narrative WQC. The Gold Book states:

*Solids (suspended, settleable) and Turbidity Criteria Freshwater fish and other aquatic life:*

*Settleable and suspended solids should not reduce the depth of the compensation point for photosynthetic activity by more than 10 percent from the seasonally established norm for aquatic life.*

The WQC does not have a human health component for TSS. The WQR does not identify TSS as a pollutant of concern.

EPA believes the TBELs will adequately achieve the goal of the above narrative criteria. The effluent limitations for TSS will be based on the TBELs (Section 5.6).

**Nitrate and Nitrite** – The WQR have the most protective limit with limits of nitrate less than 100 mg/L and Nitrite less than 10 mg/L as nitrogen. The TBEL for nitrate plus nitrite has an action level benchmark of 0.68 mg/L which will also be included in the Permit.

**Oil and Grease** – The WQC and WQR do not have clear limits for oil and grease. EPA Region 8 policy sets a surface water quality standard of 10 mg/L oil and grease maximum limit. This will be the basis for the corresponding effluent limitation.

**Dissolved Oxygen (DO)** – EPA has determined the unknown length of time that wastewater will be impounded onsite may lead to depressed DO levels in the lagoon. The WQC do not have numeric criteria for DO. Deer Creek is not assigned a DO WQR. The WQR for the Animas River requires that the DO be in excess of 6.0 mg/L at all times and above 7.0 mg/L during the spawning period. The WQR do not specify the spawning period or species of concern. Since Deer Creek has seasonal flows the spawning period can be assumed to occur during periods when the channel would reasonably be expected to have ambient flows. The increased flow will be nearly saturated with oxygen and reduce the overall DO impacts of discharges from the facility. The only Federally listed aquatic endangered species are vulnerable due to water depletions and not known to occupy Deer Creek. The wastewater is not expected to have biological oxygen demand that could cause a delayed depletion of DO downstream in the receiving water. The mixing resulting from pumping the lagoon wastewater and subsequent oxygenation from flowing in the drainage en route to Deer Creek combined with the absence of biological oxygen demand is expected to increase DO levels beyond the WQR. EPA has determined the wastewater and stormwater runoff from the facility should easily exceed the seasonal WQR of 7.0 mg/L DO if the discharge never falls below 6.0 mg/L. The stormwater and wastewater effluent limitations will require that DO never be below 6.0 mg/L.

#### 5.4. Effluent Limitation Guidelines (ELGs)

The Facility's lagoons will discharge only when necessary to continue operations. The discharges are expected to consist of a mixture of stormwater and process generated wastewater that is collected in the process area storage lagoon. With the expected comingling of these flows, Technology Based Effluent Limitations for both process wastewater and stormwater will be applied to all dewatering discharges from the Facility.

The stone crushing and sand and gravel mining activities conducted at the Facility classify the Facility under the Mineral Mining and Processing Point Source Category, Crushed Stone and Construction Sand and Gravel Subparts in 40 CFR parts 436, Subparts B and C. Subpart B, the Crushed Stone Subcategory, is applicable to the mining or quarrying and the processing of crushed



and broken stone and riprap for all types of rock and stone. Subpart B does not apply if rock and stone will be crushed or broken prior to the extraction of a mineral. Minerals will not be extracted from the crushed rock and stone. Subpart C, the Construction Sand and Gravel Subcategory, is applicable to the mining and the processing of sand and gravel for construction or fill uses.

Both ELGs specify best practicable control technology currently available (BPT) effluent limitations. Table 2 contains the requirements of the BPT limits for discharges of process generated wastewater and mine dewatering. Both ELGs only specify BPT. Best Available Technology (BAT), Best Conventional Pollutant Control Technology (BCT), and New Source Performance Standards (NSPS) are not defined for the applicable ELGs.

Table 2 - Effluent limitations attainable by the application of the best practicable control technology currently available in 40 CFR 436.22 and 436.32.

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly avg. <sup>1</sup>
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup>Within the range 6.0 to 9.0.

The wastewater lagoon is not designed to discharge by overflow. 40 CFR 436.22(b) and 436.32(b) apply to facilities that are designed to discharge when overflowing. 40 CFR 436.22(b) and 436.32(b) are not applicable to the Facility.

The receiving water’s pH is not expected to naturally be outside of the range of 6.0 to 9.0 standard units. Therefore, 40 CFR 436.22(c) and 436.23(c) are not applicable to the Facility.

The asphalt hot plant at the Facility classifies the Facility under the Paving and Roofing Materials (Tars and Asphalt) Point Source Category, Asphalt Emulsion Subcategory in 40 CFR Part 443, Subpart A. This subpart is applicable to discharges resulting from the production of asphalt paving and roofing emulsions. Since this Facility has not started operations, it is defined as a New Source and is subject to the requirements of 40 CFR part 443.15 detailed in Table 3.

Table 3 – New Source Performance Standards for Asphalt Emulsion Activities in 40 CFR 443.15

Effluent characteristic	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
TSS (kg/cu m of runoff)	0.023	0.015
Oil and grease (kg/cu m of runoff)	0.015	0.010
pH (standard units)	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup>Within the range 6.0 to 9.0.

The concrete batch plant does not meet the applicability for 40 CFR 411 for Subparts A, B or C. The applicability of Subpart A Non-Leaching subcategory of the Cement Manufacturing Point

Source Category (40 CFR 411) states, “The provisions of this subpart are applicable to discharges resulting from the process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is not contracted with water as an integral part of the process and water is not used in wet scrubbers to control kiln stack emissions.”

The applicability of Subpart B Leaching Subcategory of the Cement Manufacturing Point Source Category (40 CFR 411) states, “The provisions of this subpart are applicable to discharges resulting from the process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is contacted with water as an integral part of the process or water is used in wet scrubbers to control kiln stack emissions.” The Facility will not produce portland cement, have a kiln, or discharge wastewater that comes in contact kiln dust.

The applicability of Subpart C Material Storage Piles Runoff Subcategory of the Cement Manufacturing Point Source Category (40 CFR 411) states, “The provisions of this subpart are applicable to discharges resulting from the runoff of rainfall which derives from the storage of materials including raw materials, intermediate products, finished products and waste materials which are used in or derived from the manufacture of cement under either Subcategory—A or B.” Subparts A and B are not applicable so neither is Subpart C. The Facility is not expected to store raw materials, intermediate products, finished products and waste materials which are used in or derived from the manufacture of cement in a manner to contact stormwater. The only material of concern ion Subpart C that could be stored in stockpiles onsite is the portland cement powder. Since the cement powder is activated when hydrated it is standard practice to protect portland cement from runoff.

The concrete batch plant does not meet the applicability for 40 CFR 411 for Subparts A, B or C. The ELG is intended for facilities that have a kiln with stockpiles of the ingredients for manufacturing portland cement. The Facility will not have a kiln or stockpiles of the ingredients for manufacturing portland cement. The Facility’s concrete batch plant will be consuming portland cement to produce concrete and not producing portland cement. The entirety of 40 CFR 411 is not applicable to the Facility. 40 CFR 411 identifies TSS temperature and pH as pollutants of concern at portland cement manufacturing factories. Temperature is not a pollutant of concern since the Facility will not have a kiln producing portland cement. The TSS effluent limitations in Subparts A and B from 40 CFR 411 are mass based on the production of portland cement and do not apply to the Facility since it is not producing portland cement. The effluent limitation for pH is less restrictive than applicable WQBELs. TSS and pH are addressed through other, applicable, ELGs, MSGP-equivalent requirements and WQBELs.

#### 5.5. Multi-Sector General Permit (MSGP) Benchmark Requirements

The Facility will have multiple industrial activities that are identified by the EPA’s 2021 MSGP as having the potential to discharge pollutants to the receiving waters. The MSGP has specific requirements for Asphalt Paving and Roofing Materials (Part 8D), Glass Clay Cement, Concrete, and Gypsum products (Part 8E), and Non-Metallic Mineral Mining and Dressing (Part 8J). The MSGP has effluent limitations, Benchmark Values, and Best Management Practices to reduce the

discharge of pollutants. The MSGP requirements for each activity that are not already covered in the ELG discussions above are summarized below and will be applied to the Facility.

**Asphalt Paving and Roofing Materials (Part 8D):**

The requirements in Part 8D of the MSGP are based in part on the ELG in 40 CFR Part 443. Duplicate requirements will not be mentioned in this Section of the SoB.

The MSGP requires annual indicator monitoring for Polycyclic Aromatic Hydrocarbons in runoff. Monitoring is required for the 16 individual PAHs identified at Appendix A to 40 CFR Part 423: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

The MSGP specifies a sector specific Benchmark for Asphalt plants at 100 mg/L total suspended solids (TSS).

The MSGP does not require any sector specific BMPs.

**Glass, Clay, Cement, Concrete, and Gypsum Products (Part 8E):**

The concrete batch plant is assigned an SIC code of 3272 and this SIC code would be subject to the requirements of MSGP Part 8E. The MSGP specifies a sector specific TSS benchmark for concrete batch plants at 100 mg/L.

In addition to the benchmark and effluent limitations, the MSGP has Stormwater Pollution Prevention Plan (SWPPP) and good housekeeping requirements which will be included in the Permit. (MSGP part 8E2 and 8E.3)

**Non-Metallic Mineral Mining and Dressing (Part 8J)**

The requirements in Part 8J of the MSGP include sediment and erosion control during all phases of the mining operation from opening to closure. Equivalent requirements will be included in the Permit. The MSGP requires benchmark monitoring for nitrate plus nitrite and total suspended solids. The benchmark concentrations are 0.68 mg/L for nitrate plus nitrite and 100 mg/L for TSS.

5.6. Technology Based Effluent limitations (TBELs)

The information in Section 5.4 was used to develop the following TBELs:

**TSS** – The effluent limitations and benchmark concentrations for TSS in stormwater will be based on the MSGP Non Metallic Mineral Mining and Dressing benchmark of 100 mg/L. If the asphalt emulsion activities are conducted at the facility lagoon wastewater discharges must comply with ELG 40 CFR part 443.15: TSS shall not exceed 0.023 kg/ cubic meter of runoff daily maximum and 0.015 kg/cubic meter of runoff 30-day average. This is the most protective requirement and will be the basis for TSS effluent limitations.

**Nitrate and Nitrite** – The WQR have the most protective limit with limits of nitrate less than 100 mg/L and Nitrite less than 10 mg/L as nitrogen. The MSGP has an action level benchmark for nitrate plus nitrite of 0.68 mg/L which will be included in the Permit and excursions above this benchmark will require corrective actions on the part of the Permittee.

**Oil and Grease** –TBEL limit of .015 kg/cubic meter of runoff daily max and .010 kg/cubic meter of run off 30-day average are not as protective as the Region 8 oil and grease policy. See Section 5.3 for more information.

**Dissolved Oxygen (DO)** – There is not a TBEL for DO.

**pH** – ELGs limit the pH of wastewater between 6.0-9.0 standard units. The WQC are more protective with required pH between 6.5 to 9.0 standard units and will be the basis for the effluent limitations.

**Polycyclic Aromatic Hydrocarbons (PAH)** – PAH monitoring is required by the MSGP for runoff from asphalt emulsion activites and will be required in this permit. See Section 5.4: Asphalt Paving and Roofing Materials

## 6. PROPOSED EFFLUENT LIMITATIONS

### 6.1. Stormwater Effluent limitations

The effluent limitations in Table 4 apply to stormwater discharges that are not contaminated by wastewater or stormwater runoff from areas where mining, concrete batch plant and asphalt emulsion activities are conducted.

Table 4 – Effluent Limitations for Stormwater discharges at Outfall 001 and Outfall 002

Characteristic	30-Day Average <u>a/</u>	7-Day Average <u>a/</u>	Daily Maximum <u>a/</u>	Limit Basis <u>b/</u>
Flow, million gallons	Report	N/A	Report	N/A
Oil and Grease (O&G), mg/L	10	N/A	10	WQBEL
Dissolved Oxygen (DO), mg/L	N/A	N/A	6.0	WQBEL
Nitrate (N), mg/L	N/A	N/A	100	WQBEL
Nitrite (N), mg/L	N/A	N/A	10	WQBEL
The pH of the discharge shall not be less than 6.5 or greater than 9.0 at any time.				WQBEL
The dissolved oxygen (DO) of the discharge must always be above 6.0 mg/L.				WQBEL

a/ See Definitions, Part 1.1 of Permit, for definition of terms.

b/ WQBEL = Water Quality Based effluent limitation, TBEL = Technology based effluent limitations.

6.2. Stormwater Benchmark Thresholds

The Permit requires benchmark monitoring parameters of stormwater discharges. Benchmark thresholds are used to determine the overall effectiveness of the Facility’s stormwater Best Management Practices (Section 7 of the Permit) and to trigger when additional action(s) are necessary to comply with Section 8 of the Permit. Table 5 contains the benchmark thresholds that apply to this Facility.

Table 5 – Benchmark Monitoring Concentrations for Discharges from Outfall 001, Outfall 002, Outfall 003.

Parameter	Benchmark Thresholds
Total Suspended Solids (TSS)	100 mg/L
Nitrate and Nitrite (N)	0.68 mg/L

The benchmark thresholds are not effluent limitations; meaning a benchmark threshold exceedance is not a permit violation. If a benchmark threshold is exceeded, then the permittee must conduct the actions required in Section 8 of the Permit. Failure to conduct any required measures in Section 8 of the Permit is considered a violation.

The benchmark thresholds apply to all stormwater discharges. Since the wastewater lagoons are expected to be a mixture of wastewater and stormwater runoff, discharges from Outfall 003 will also be subject to the benchmarks requirements as well as the effluent limitations in 6.3.

6.3. Effluent limitations for Wastewater Lagoon De-watering – Outfall 003

The effluent limitations in Table 6 apply to all dewatering discharges from Lagoons that collect wastewater and runoff from areas where mining, concrete batch plant and asphalt emulsion activities are conducted. Applicable TBELs and WQBELs were compared, and the most stringent of the two was selected for the following effluent limits.

Table 6 - Effluent Limitations - Outfall 003

Characteristic	30-Day Average a/	7-Day Average a/	Daily Maximum a/	Limit Basis b/
Flow, million gallons	Report	N/A	Report	N/A
Total Suspended Solids (TSS) Asphalt Emulsion, kg/cu m of runoff c/	0.015	N/A	0.023	TBEL
Oil and Grease (O&G), mg/L	10	N/A	10	WQBEL
Nitrate (N), mg/L	N/A	N/A	100	WQBEL
Nitrite (N), mg/L	N/A	N/A	10	WQBEL
The pH of the discharge shall not be less than 6.5 or greater than 9.0 at any time.				WQBEL

Characteristic	30-Day Average a/	7-Day Average a/	Daily Maximum a/	Limit Basis b/
The dissolved oxygen (DO) of the discharge must always be above 6.0 mg/L.				WQBEL

a/ See Definitions, Part 1.1 of Permit, for definition of terms.

b/ WQR = Tribal Water Quality Requirements, WQC = EPA Water Quality Criteria, TBEL = Technology based effluent limitations.

c/ This effluent limitation applies if asphalt emulsion activities are present at the facility. This limit only applies to discharges of process generated wastewater from the areas where asphalt emulsion activities are conducted. The Permittee will have to measure the volume of process generated wastewater pumped and multiply by the measured TSS values to verify compliance with the effluent limitation.

#### 6.4. Anti-Backsliding

Federal regulations require at 40 CFR Part 122.44(l)(1) that “when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit were based have materially and substantially changed since the time the Permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR Part 122.62).”

This permit renewal complies with anti-backsliding regulatory requirements. All effluent limitations, standards, and conditions in the Permit are either equal to or more stringent than those in the previous permit.

### 7. MONITORING REQUIREMENTS

#### 7.1. Stormwater Self monitoring Requirements – Outfall 001 and 002

The Permittee is required to conduct stormwater monitoring once per year of Permit coverage. The monitoring event is required to be conducted in the first 30 minutes of stormwater runoff from the Facility. The monitoring event must be preceded by 7 days without a process water discharge or stormwater runoff producing event. The Permittee is required to monitor during runoff producing storm events within the first 30 minutes of runoff occurring during business hours. Monitoring is not required for storm events with the first 30 minutes of run off occurring entirely outside of business hours. If there are no qualifying storm events during the reporting year, the Permittee shall indicate no discharge on the Discharge Monitoring Report. Stormwater monitoring is to be conducted for all of the effluent characteristics in Table 7 at Outfall 001 and Outfall 002 If an effluent limitation or benchmark is exceeded, the Permittee must review the best management practices and document changes or other actions to bring the facility into compliance. (Section 8 of the Permit)

Table 7 – Stormwater Monitoring Requirements for Outfalls 001 and 002

<b>Effluent Characteristic</b>	<b>Frequency</b>	<b>Sample Type <u>a</u>/</b>
Total Suspended Solids, mg/L	Once per year	Grab
pH, units	Once per year	Grab
Oil and Grease, mg/L	Once per year	Grab
Nitrate (N), mg/L	Once per year	Grab
Nitrite (N), mg/L	Once per year	Grab
Dissolved Oxygen, mg/L	Once per year	Grab

7.2. Self-Monitoring Requirements – Wastewater Lagoon Dewatering – Outfall 003

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O. Due to the unpredictable nature of discharges from this facility, monitoring is required every time that a wastewater lagoon dewatering operation occurs at the Facility . The lagoons are expected to be at the bottom of active mine cells and may also contain stormwater that fell directly in the active cell. It is infeasible to separate the wastewater from stormwater that falls directly in the active cells and on the areas that are conducting regulated activities from the wastewater produced by the activities. Wastewater lagoons are expected to be transient and the resulting discharge points will likely vary. The Permittee is required to monitor for the pollutants in Table 8at the pump’s discharge point before contacting additional stormwater. The Permittee may monitor for DO at the point where effluent leaves the Facility boundary if compliance is not achieved at pumps discharge point.

Table 8 – Monitoring Requirements for Outfall 003

<b>Effluent Characteristic</b>	<b>Frequency</b>	<b>Sample Type <u>a</u>/</b>
Location of discharge, Latitude, Longitude	Every discharge	GPS Measurement
Flow, million gallons	Each Day of Discharge	Cumulative
Total Suspended Solids, mg/L	Each Discharge	Grab
pH, units	Each Discharge	Grab

Effluent Characteristic	Frequency	Sample Type <u>a/</u>
Oil and grease, mg/L	Each Discharge	Grab
Nitrate (N), mg/L	Each Discharge	Grab
Nitrite (N), mg/L	Each Discharge	Grab
Dissolved Oxygen, mg/L	Each Discharge	Grab
Polycyclic Aromatic Hydrocarbon (PAH) mg/L <u>b/</u>	Each Discharge	Grab

a/ See Definitions, Permit Part 1.1., for definition of terms.

b/ This monitoring is only required if the equipment or materials for asphalt processing are or have been present. Monitoring is required for the 16 individual PAHs identified at 40 CFR Part 423 Appendix A: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

**8. FACILITY SWPPP AND BMP REQUIREMENTS**

Sections 5 and 6 of the Permit contain requirements for developing a Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practices (BMPs) that will reduce contamination of stormwater by onsite activities. If a benchmark or effluent limitation is exceeded, then the permittee must conduct the corrective actions required in Section 8 of the Permit.

**9. INSPECTION REQUIREMENTS**

On a monthly basis, unless otherwise modified in writing by EPA, the Permittee shall inspect its wastewater treatment facility. The Permittee shall maintain a notebook recording all information obtained during the inspection.

**10. REPORTING REQUIREMENTS**

With the effective date of this Permit, the Permittee must electronically report monthly discharge monitoring reports (DMR) on a quarterly frequency using NetDMR. Electronic submissions by Permittees must be sent to EPA Region 8 no later than the 28th of the month following the completed reporting period. The Permittee must sign and certify all electronic submissions in accordance with the signatory requirements of the Permit. NetDMR is accessed from the internet at <https://netdmr.zendesk.com/home>.

In addition, the Permittee must submit a copy of the DMR to the Southern Ute Indian Tribe. Currently, the Permittee may submit a copy to the Southern Ute Indian Tribe by one of three ways:



1.) a paper copy may be mailed, 2.) The email address for Southern Ute Indian Tribe may be added to the electronic submittal through NetDMR, or 3.) The Permittee may provide Southern Ute Indian Tribe viewing rights through NetDMR.

## **11. ENDANGERED SPECIES CONSIDERATIONS**

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, “listed” species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS as critical (“critical habitat”). See 16 U.S.C. § 1536(a)(2), 50 C.F.R. Part 402. When a Federal agency’s action “may affect” a protected species, that agency is required to consult with the FWS, depending upon the endangered species, threatened species, or designated critical habitat that may be affected by the action (50 C.F.R. § 402.14(a)).

The U. S. Fish and Wildlife Information for Planning and Conservation (IPaC) website program was used to determine federally-Listed Endangered, Threatened, Proposed and Candidate Species for the area near the Facility. The IPaC Trust Resource Report findings are provided below for discharges from the Facility. This is an analysis on the effect of discharges authorized by the Permit on the species identified by IPaC. This is NOT a biological evaluation on the mining activities planned at the Facility. The designated area utilized was taken directly from the IPaC system and covers the entire proposed mine and receiving water.

Figure 11-1 Map of area expected to be impacted by discharges from the Facility

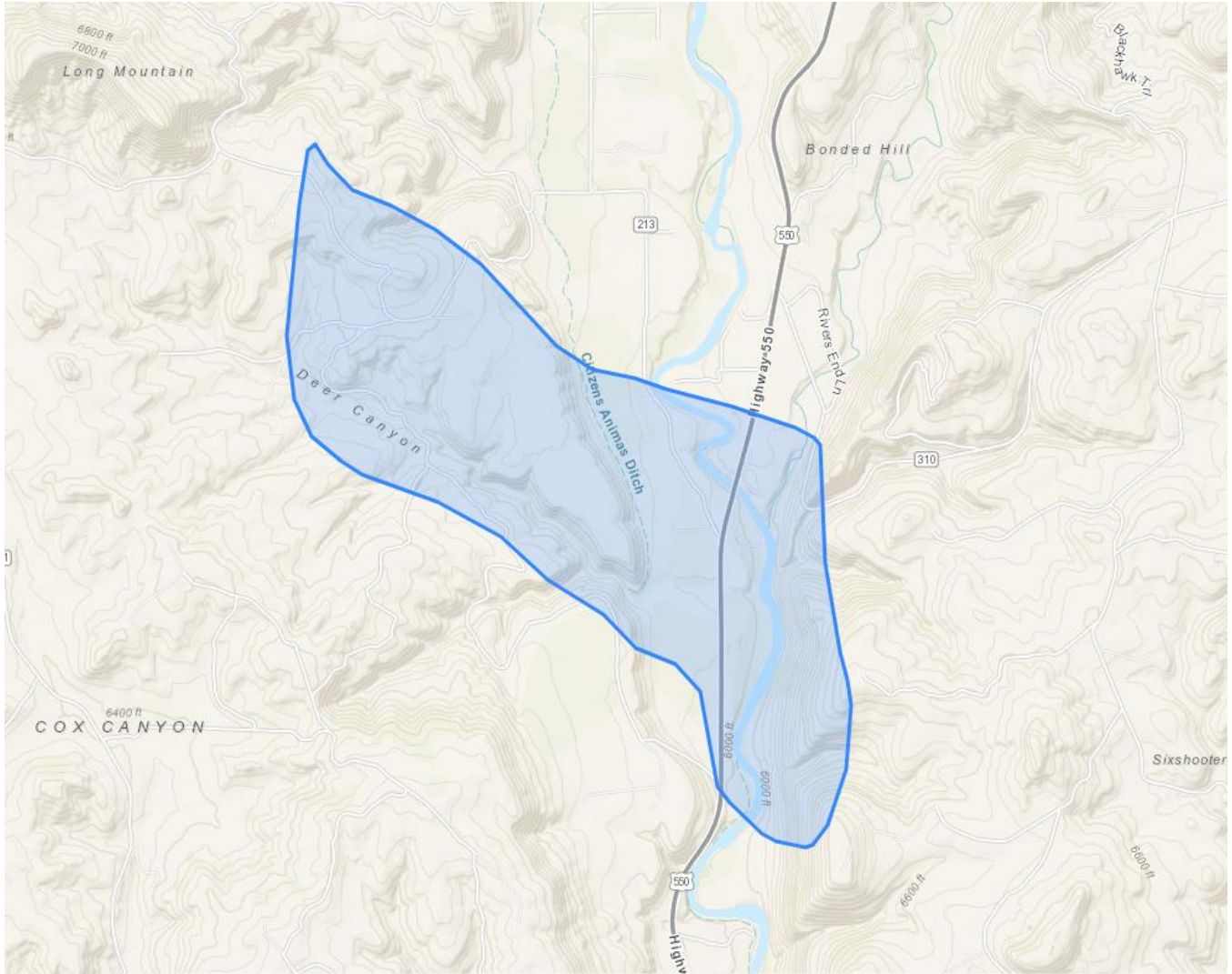


Table 9 – Federally-Listed Endangered, Threatened, Proposed and Candidate species for La Plata County, Colorado

Species	Scientific Name	Status	Impact
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	E	NE
Knowlton Cactus	<i>Pediocactus knowltonii</i>	E	NE
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	T	NE
New Mexico Meadow Jumping Mouse	<i>Zapus hudsonius luteus</i>	E	NE
Razorback Sucker	<i>Xyrauchen texanus</i>	E	NE
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	NE
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	T	NE

Symbols/Acronyms:

T Threatened  
 E Endangered  
 NE No Effect

EPA does not anticipate any impacts on listed species associated with the issuance of this permit. This permit only allows for the discharge of stormwater and wastewater to Deer Creek. This permit does not require or allow land disturbances. The effect of constructing and operating the facility on endangered species is addressed through other regulatory mechanisms such as National Environmental protection Act, Tribal laws and regulations. The permit is not expected to be associated with new ground disturbance or significant changes to the volume or location of discharge to deer Creek. Following is a biological evaluation for each species in Table 9:

**-Colorado Pikeminnow** is listed as endangered due to water depletions of the Upper Colorado River and San Juan River Basins. This permit does not contribute to water depletions of these basins. There will be No Effect on this species from the permitted discharge.

**-Knowlton Cactus** is listed as an endangered terrestrial plant. The cactus is not known to occupy the area. The nearest known population is in New Mexico. Issuance of this permit will not allow any additional ground disturbance which may affect potential habitat. There will be No Effect on this species from the permitted discharge.

**-Mexican Spotted Owl** is a threatened species. The species is not known to occupy the area of the Facility. The species does not occupy riparian habitat. Issuance of this permit will not allow any additional ground disturbance. There will be No Effect on this species from the permitted discharge.

**-New Mexico Meadow Jumping Mouse** is an endangered species. This species preferred habitat is active riparian corridor. The drainage channel and subsequent tributary to the Animas River do not have sufficient water flow to provide habitat suitable for this species. Issuance of this permit will not

allow any additional ground disturbance. There will be No Effect on this species from the permitted discharge.

**-Razorback Sucker** is listed as endangered due to water depletions of the Upper Colorado River and San Juan River Basins. This permit does not contribute to water depletions of these basins. There will be No Effect on this species from the permitted discharge.

**-Southwestern Willow Flycatcher** is an endangered species. The Species prefers to nest in willow trees. The drainage channel and subsequent tributary to the Animas River do not have sufficient water flow to support the willow tree habitat suitable for this species. This permit will not allow any additional ground disturbance. There will be No Effect on this species from the permitted discharge.

**-Yellow-billed Cuckoo** is an endangered species. The Species prefers to nest in cottonwood trees. The drainage channel and subsequent tributary to the Animas River do not have sufficient water flow to support the cottonwood tree habitat suitable for this species. Issuance of this permit will not allow any additional ground disturbance. There will be No Effect on this species from the permitted discharge.

Critical habitat designation does not exist in the effected portions of Deer Creek for all of the above listed species.

After informal consultation with the USFWS wildlife service, the EPA has determined the listed species are not likely to occupy the creek impacted by discharges from this Facility. The downstream habitat along the Animas River is not expected to be impacted. The habitat along the river will not be inundated by flows from this facility. The Permit's effluent limitations have been developed to protect the aquatic and terrestrial wildlife uses of the receiving water. The EPA has determined issuance of this permit will have No Effect on the Endangered, Threatened, Proposed and Candidate Species in Table 9.

### **Update After Public Notice**

The USFWS was contacted December 12, 2021 to provide comment during public notice of this permit and no comment was received.

## **12. NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS**

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The U.S. National Park Service (NPS) National Register of Historic Places Focus Database was utilized to determine and evaluate resources of concern in La Plata County, Colorado.

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. The properties identified by the National Register of Historic Places are listed in Table 10.

Table 10 - Places worthy of preservation in La Plata, County Colorado identified by the National Register of Historic Places

<b>Property Name</b>	<b>City</b>	<b>Street &amp; Number</b>
Animas Canyon Toll Road	Durango	Between Durango and Silverton in the San Juan NF.
Animas City School	Durango	3065 W. 2nd Ave.
Colorado Ute Power Plant	Durango	14th St. and Animas River
Denver and Rio Grande Western Railroad Locomotive No. 315	Durango	479 Main Ave.
Durango High School	Durango	201 E. 12th St.
Durango Rock Shelters Archeology Site	Durango	Address Restricted
Durango-Silverton Narrow-Gauge Railroad	Durango	Right-of-way between Durango and Silverton
East Third Avenue Historic Residential District	Durango	E. 3rd. Ave. between 5th, and 15th Sts.
Main Avenue Historic District	Durango	Main Ave.
Newman Block	Durango	801--813 Main Ave.
Ochsner Hospital	Durango	805 Fifth Ave.
Rochester Hotel	Durango	726 E. Second Ave.
Smiley Junior High School	Durango	1309 E 3rd Ave.
Spring Creek Archeological District	Bayfield	Address Restricted
Ute Mountain Ute Mancos Canyon Historic District	Durango	Address Restricted

The places identified by the National Register of Historic Places are primarily in the city of Durango. The identifies places are not downstream of the Facility and are not likely to be affected by the issuance of this NPDES Permit. Based upon the information provided by the NPS database, EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources due to this permit issuance.

**UPDATE AFTER PUBLIC NOTICE**

During public notice of the Permit the Southern Ute Tribal Historic Preservation Officer was notified of the EPA’s intent to issue the Permit and provided an opportunity to comment.

**13. MISCELLANEOUS**

The effective date of the permit and the permit expiration date will be determined upon issuance of the permit. The intention is to issue the permit for a period not to exceed 5 years.

Permit Writer: Paul Garrison, Region 8 EPA, phone: 303-312-6016

**ADDENDUM:**

**PUBLIC NOTICE AND RESPONSE TO COMMENTS**

The permit and statement of basis were public noticed in the Durango Herald on October 8, 2021. A second 30 day comment period was public noticed on the EPA's listserv November 22, 2021. There were no comment(s) received during either public comment period.