STATEMENT OF BASIS FOR
TRANSIT WASTE LLC
BONDAD LANDFILL
NPDES PERMIT COR050005

August 20, 2021

PERMITTEE:	Transit Waste LLC
FACILITY NAME AND ADDRESS:	Bondad Landfill 1500 E. CR 318 Durango, CO 81301
PERMIT NUMBER:	COR050005
RESPONSIBLE OFFICIAL:	Steve McCaffrey, District Manager Transit Waste LLC P.O. Box 215 Bloomfield, NM 87413 (505) 634-2510
FACILITY CONTACT:	Steve McCaffrey, District Manager Transit Waste LLC P.O. Box 215 Bloomfield, NM 87413 (505) 634-2510
PERMIT TYPE:	Industrial Stormwater, Indian country
TYPE OF TREATMENT:	Lagoon and Land Application
FACILITY LOCATION:	1500 E. CR 318 Durango, La Plata County, CO 81301
DISCHARGE LOCATION(S):	Outfall 001A: Latitude 37.054166° Longitude -107.862500°
RECEIVING WATER:	Unnamed drainage channel to unnamed tributary of the Animas River

1 INTRODUCTION

This statement of basis (SoB) is for the issuance of a National Pollutant Discharge Elimination System (NPDES) permit (the Permit) to Transit Waste LLC for the Bondad Landfill (Bondad, landfill, or facility). The Permit establishes discharge limitations for any discharge of stormwater from the stormwater lagoon. The SoB explains the nature of the discharges, and the EPA's decisions for limiting the pollutants in the wastewater, as well as the regulatory and technical basis for these decisions.

The Bondad Landfill resides in the Southern Ute Reservation. The EPA, Region 8 is issuing this permit pursuant to the Agency's authority to implement the Clean Water Act (CWA) NPDES program in Indian country, as defined at 18 U.S.C. § 1151.

The Southern Ute Indian Tribe (Tribe) of the Southern Ute Reservation (Reservation) applied for program eligibility, or Treatment in a similar manner As a Sovereign (TAS), to administer the Clean Water Act Sections 303(c) water quality standards and 401 water quality certification programs on Trust land. The Tribe's application asserts authority over the surface water resources located on lands that are held in trust by the United States for the benefit of the Tribe.

Fee Land, also called "Fee Simple land," is defined by the Bureau of Indian Affairs as the highest possible type of property ownership in Indian country. Fee Land is under complete control of the owner (a person or an entity such as a tribe) who holds the title to it. He or she or the tribe, for example can sell, lease or develop the land as they see fit.

Trust Land is defined as land that the United States government holds in trust on behalf of an American Indian or Alaska Native individual or a federally recognized tribe. Unlike with Fee Land, the federal government, instead of the individual or tribe, holds the title for the Trust Land.

Bondad Landfill and its outfall reside entirely on Fee Land within the Southern Ute Reservation. After discharge the stormwater will flow across Fee Land, into and across Trust Land, then back into Fee Land before discharging to the Animas River on Fee Land.

2 BACKGROUND INFORMATION

2.1 Facility Description

Bondad is a municipal solid waste landfill operating within the boundaries of the Southern Ute Reservation in La Plata County, Colorado. Bondad is owned and operated by Transit Waste LLC. Bondad began operations as a landfill in 1996. Bondad is located approximately 15 miles southeast of Durango, Colorado. Figure 1 displays the facility's location, receiving water and surrounding topography. Figure 2 is a detailed map of the facility.

Bondad accepts municipal solid waste, construction and demolition waste, wastewater treatment plant solids, and minor amounts of oil field waste. The landfill does not accept medical waste, asbestos-containing waste, electronic waste, refrigerators, or hazardous waste.

In Figure 2, the cross hashed section is the area designated for disposal of accepted wastes. The section is roughly divided up into a series of cells. Under typical landfill operation, a cell contains

one day's worth of waste. The waste is compacted in a specific area by bulldozers and other heavy equipment. At the end of the day, a 6-inch layer of top cover, or daily cover, is applied. The top cover is typically clay or soil or other wastes such as wastewater biosolids that are not likely to contain odor causing material. The cell and its contents will continue to be compacted by the heavy equipment as other cells are filled.

During storm events, rain will land on the cells and seep through the cells becoming contaminated by the wastes in the cells. This contaminated water is called leachate. Below the cells is a series of pipes and impervious liners that collect the leachate and deliver the leachate to sumps #1 and #2. Based on the topographic map and EPA inspection reports, the area of the facility generally slopes from north to south toward the stormwater lagoon. The sumps are identified in Figure 2 by a square symbol. Sump #1 is located near the southern edge of cell 5. Sump #2 is located near the southern edge of cell 1. The leachate is pumped from the sumps by portable pumps to the leachate application area. The leachate application area is identified by the double hashed section in Figure 2 on the south end of the cells near cell 1. The leachate is then sprayed onto the leachate application area. The leachate application area is protected by berms, which prevent runoff onto areas that will drain to the stormwater lagoon. The stormwater lagoon is located south of the leachate application area. The berms that restrict stormwater and leachate from co-mingling are identified in Figure 2 by blue dashed lines.

Within the facility boundary, there is an area that is leased for natural gas extraction. This area is identified as the Gas Lease Area in Figure 2. The Gas Lease Area is operated by a separate entity, Red Willow. Stormwater that lands in this area will currently drain to the landfill's stormwater lagoon. Additional monitoring and best management practice (BMP) requirements are included in the Permit Sections 4 and 7.4 to account for pollutant contributions from the Gas Lease Area.

South of the Gas Lease Area is a storage shed, which contains spill clean-up materials for spills that may occur at Bondad. South of the storage shed is a fuel and chemical storage area, which comprises the maintenance facility (Figure 2). Various automotive solvents and fluids are stored in tanks and containers with secondary containment. The maintenance facility is bordered by berms to prevent stormwater run-on. The berms also provide secondary containment for any spills that may occur in the maintenance facility. The maintenance facility does not have a roof and is not paved.

South of the maintenance facility is a storage area for solid waste bins (dumpsters). This area is identified as "empty roll-off container storage" in Figure 2. In this area, roll-off containers are stored before being distributed for waste collection. No waste transfer or other waste handling activities are conducted in this area. Stormwater runoff from this area will enter the stormwater lagoon.

Southeast of the empty roll-off container storage is the stormwater lagoon. The stormwater lagoon is bordered on the south by Bondad's access road, which is elevated and acts as a berm for the stormwater lagoon. Bondad is generally shaped like a bowl with the stormwater lagoon at the bottom, southern end. The natural topography is sloping away from the facility at every point. There is no opportunity for stormwater to run-on to the facility and become contaminated by Bondad's activities.

Figure 1 - Map of the Bondad Landfill location, Animas River and surrounding area

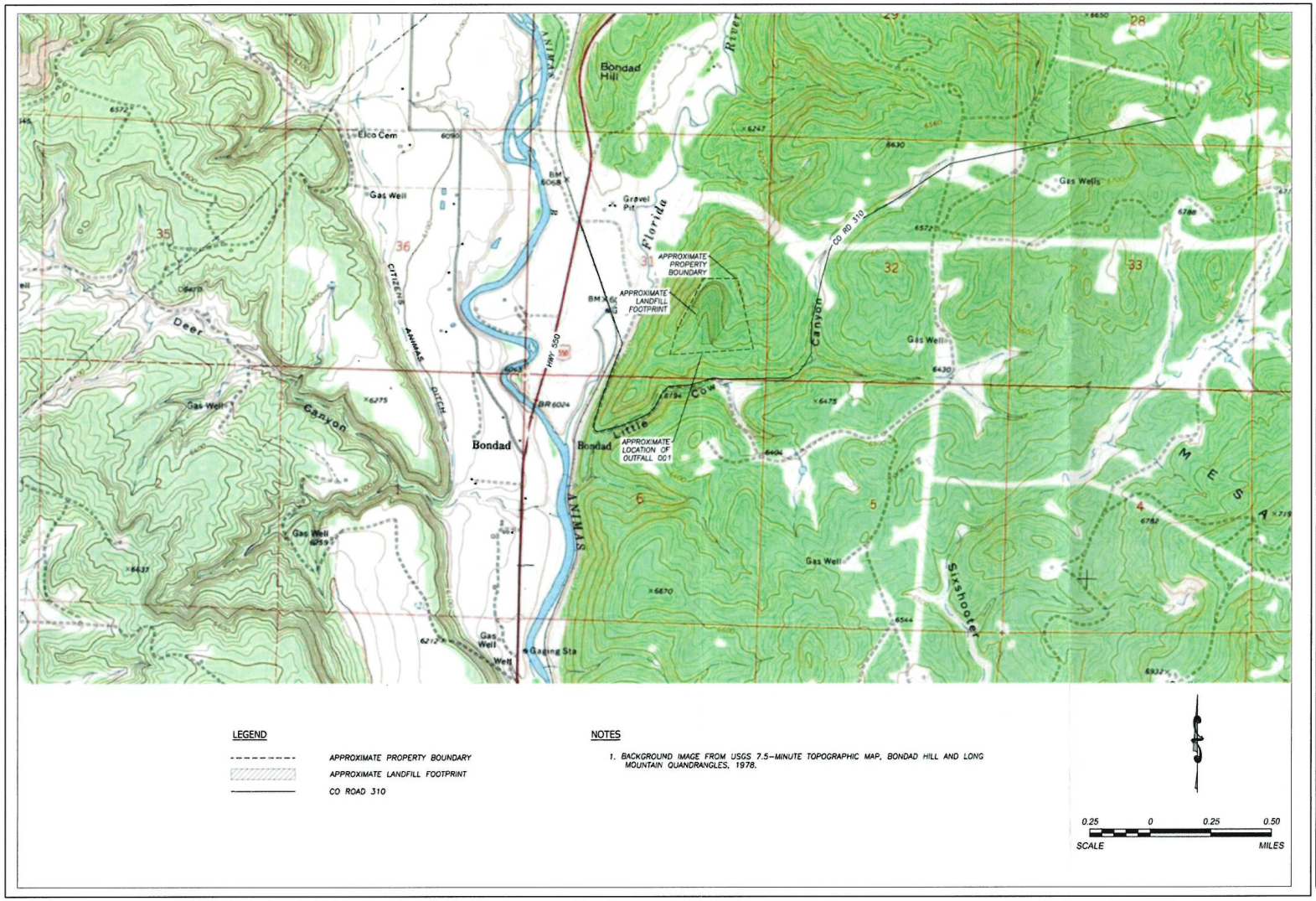
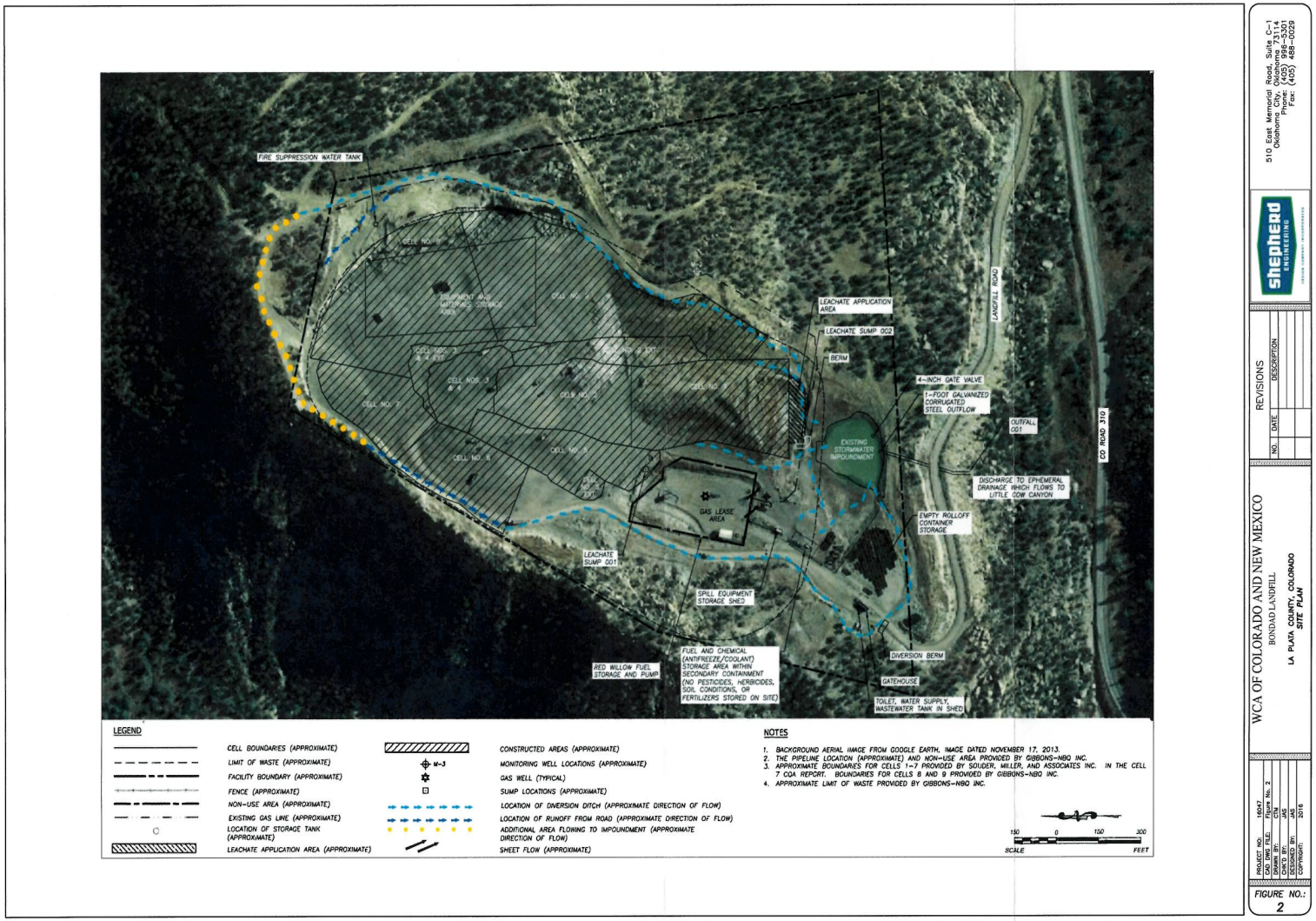


Figure 2 - Map of Bondad Landfill Facility



2.2 Stormwater and Wastewater Management

There are two stormwater management systems at the facility. The cell portion of the facility, shaded area in Figure 2, is graded to direct stormwater to the leachate recovery system. The leachate recovery system collects stormwater and leachate from the landfill then pumps the water to the leachate application area for land application on the south end of the cells near cell 1. The remaining portion of the facility uses the natural gradient combined with a system of diversion dikes and berms to collect and convey stormwater into the stormwater lagoon. The stormwater lagoon only receives stormwater from areas which are not used for waste handling and disposal activities. (See Figure 2).

Under normal operations the stormwater lagoon is not expected to discharge. The stormwater lagoon's contents are pumped out before storm events and transported by water truck for disposal through land application on the inactive cells of the landfill similar to the disposal of the leachate system. This disposal method has resulted in no reported discharges of stormwater in the previous permit term and is the intended method of stormwater management.

On occasion, heavy storms will cause the lagoon to fill to the point of overflowing into a 12-inch galvanized culvert under the access road. The pipe will convey stormwater south under Bondad's access road and discharge into a canyon, which is an unnamed tributary that flows to the Animas River. Bondad is required to conduct monitoring every time that a discharge occurs from this pipe. An EPA inspection on May 9, 2019 found that a discharge has not been reported since December 31, 2013, although evidence of a discharge was observed during the inspection.

2.3 Chemicals Used

There are no chemicals used onsite for stormwater management. The landfill has a vehicle maintenance facility that stores diesel fuel, antifreeze, hydraulic oil, engine oil and transmission fluid. The vehicle maintenance facility has a berm that provides secondary containment around the perimeter and protects the area from stormwater run-on. The maintenance facility is not paved and does not have a roof.

3 PERMIT HISTORY

Facility Performance and Compliance History

The data in Table 1 was collected from discharge monitoring report (DMR) data submitted to EPA from June 21, 2012 through April 27, 2021 under the previous permit issued in 2012. The data available is extremely limited due to the non-discharging nature of the stormwater lagoon.

The only reported violation of an effluent limit was for a total suspended solids (TSS) concentration of 180 mg/L reported with a daily maximum effluent limitation of 88 mg/L.

The monitoring data submitted is not comprehensive of the monitoring requirements of the previous permit (2012). Measurements for α-Terpineol, Benzoic acid, *p* -Cresol, and Phenol were not included in the Permittee's DMR submission. In order to ensure that all the required analytes are monitored, additional requirements were added to the monitoring section of the Permit. These requirements include: identification in the stormwater pollution prevention plan (SWPPP) of the

laboratory which will be conducting the analysis for each analyte, identification of the position responsible for collecting samples, and identification of the storage areas for monitoring equipment.

Table 1 - Monitoring data reported from June 21, 2012 through April 27, 2021.

Monitoring Period End Date	Parameter Desc	Limit Unit Short Desc	Limit Value	Reported Value	Stat Base Desc
12/31/2013	BOD, 5-day, 20 deg. C	mg/L	140.	10.	DAILY MX
12/31/2013	pH	SU	9.	8.1	MAXIMUM
12/31/2013	Solids, total suspended	mg/L	88.	57.	DAILY MX
12/31/2013	Nitrogen, ammonia total [as N]	mg/L	10.	.19	DAILY MX
12/31/2013	Zinc, total [as Zn]	mg/L	.2	.049	DAILY MX
12/31/2013	Flow, total	MGD		.09	30DA AVG
12/31/2013	Flow, total	MGD		.0006	DAILY MX
12/31/2015	Solids, total suspended	mg/L	88.	180.	DAILY MX

4 MAJOR CHANGES FROM PREVIOUS PERMIT

Major changes contained in the Permit clarify the implementation of best management practices (BMPs) and specify the information necessary to collect during facility inspections. The Permit language has been updated to include the most recent requirements. It is the Permittee's responsibility to read and understand the entire Permit.

4.1 Inspection Requirements

The monthly inspections have been reduced to a semi-annual comprehensive site evaluation conducted once during October and once during April. This schedule is intended to ensure BMPs are properly maintained before the winter and to identify any BMP deficiencies after the winter season (Section 6.9 of the Permit). In addition, a requirement for a pre-runoff event inspection has been added before every forecasted storm event unless an inspection has been conducted in the previous 7 days (Section 6.10 of the Permit). For the purposes of this Permit, a Forecasted Storm is a rainfall event forecasted with greater than 0.25 inch of rainfall and at least 72 hours from the previously measurable—greater than 0.25 inch rainfall—storm event. This approach is intended to help the Permittee identify storms that are likely to have runoff into the stormwater lagoon. The goal of the BMPs is to reduce the contamination of stormwater to the maximum extent practicable. The transition away from routine monthly inspections to pre-storm event inspections will reduce the Permittee's routine efforts while providing more focused inspections on the critical inspection elements.

4.2 Outfall maintenance and cleaning

During the most recent inspection by EPA, it was noted that the outfall structure where discharges are expected to occur was partially buried by dust and debris. A new requirement has been added for the outfall structure and downstream drainage to be maintained in a manner so as to limit the amount of sediment mixed with stormwater prior to discharge. Pollutants contained in the culvert must be removed to the maximum extent practicable to prevent contamination of the stormwater in the period between when it enters the culvert from stormwater lagoon and discharges from the culvert to the drainage.

4.3 Outfall Signage

A requirement has been added to place a sign at the outfall identifying the facility, industrial activity and permit number associated with the outfall. The sign shall be permanent in nature and visible for 180 degrees at a distance of 20 feet. The sign must be installed within 60 days of the effective date of this permit (Section 6.11 of the Permit).

4.4 Modified monitoring requirements

In the previous permit, monitoring was required at the beginning, middle and end of any discharge event. This requirement posed challenges since the discharges are not controlled releases. The sampling requirement has been reduced to one grab sample per discharge. This sampling approach is considered representative and is consistent with the requirements of similar stormwater permits. (See the EPA 2021 Multisector General Permit for Stormwater Discharges Associated with Industrial Activity, MSGP.) Since the stormwater lagoon will accumulate stormwater runoff before discharge, the lagoon is assumed to be mixed by the inflows and relatively consistent in composition at the time of discharge.

The requirement for a visual observation for oil and grease sheen has been removed. The Permittee is now required to sample for oil and grease in every discharge.

The Permittee will be required to monitor for per- and polyfluoroalkyl substances (PFAS) (see Section 4).

4.5 Controlled Release of Stormwater

The inspection report from EPA inspectors indicated that evidence of discharge from the outfall was observed during the last inspection on May 9, 2019. Bondad has reported only one discharge since 2013. The single monitoring event conducted at Bondad in 2013 failed to include all of the required analytes. As a special condition in the Permit, Bondad will be required to install a device (e.g., weir with valve or other control mechanism) that will allow for accumulation of stormwater in the lagoon and subsequent controlled release of stormwater from the stormwater lagoon (Permit Section 7.1). The modified lagoon is required to have a volume capable of containing a 2-year 24-hour storm before discharge (Permit Section 7.2). The National Oceanic and Atmospheric Administration (NOAA) predicts a 2year 24-hour storm event at Bondad's location will have 1.34 inches of precipitation (NOAA Precipitation Frequency Server for latitude: 37.0542°, longitude: -107.8625° on April 23, 2021). Since the

facility is unpaved, an infiltration rate of approximately 10% is assumed, yielding approximately 1.21 inches of runoff across the stormwater drainage area that is likely to enter the stormwater lagoon. It is the Permittee's responsibility to measure the surface area draining to the stormwater lagoon and calculate the expected volume of stormwater that will enter the lagoon from 1.21 inches of runoff across the drainage area. This calculation shall be documented in the SWPPP.

4.6 Runoff from gas lease area

This Permit is not intended to cover stormwater discharges from the gas lease area operated by Red Willow. The Permittee is required to coordinate with Red Willow to redirect stormwater discharges away from the stormwater lagoon. If redirecting the stormwater from the gas lease area is not possible, Bondad will be required to monitor for chemical oxygen demand (COD) and polycyclic aromatic hydrocarbons (PAH) to be consistent with the 2021 MSGP (Permit Sections 4 and 7.4).

5 WATER QUALITY CONSIDERATIONS

5.1 Description of Receiving Water

Stormwater discharges from Bondad will flow to an unnamed drainage channel, which flows to a tributary of the Animas River. The facility and outfall reside entirely on Fee Land within the Southern Ute Reservation. After discharge, the stormwater will flow across Fee Land, into and across Trust land, then back into Fee Land before discharging to the Animas River on Fee Land. For more information on fee and trust land, see Section 1, Introduction of this SoB.

Pollutants likely to be in a discharge from this facility that are potential water quality concern include those identified by EPA's effluent limitations guidelines for the Landfill Point Source Category (40 CFR Part 445). Pollutants being indicative of runoff intermingling with the active portions of the landfill, include biochemical oxygen demand (BOD), total suspended solids (TSS), pH, ammonia (as N), α-Terpineol, benzoic acid, p –Cresol, phenol, and zinc. Oil and grease has been identified as a pollutant of concern from activities conducted at the vehicle maintenance facility.

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects. Since the landfill is disposing of waste that has the potential to contain PFAS, the stormwater discharge also has the potential to be contaminated with PFAS. Monitoring requirements for PFAS are included in the Permit. Currently there are no CWA approved methods for testing PFAS. Once a multi-lab validated test method is developed by EPA and made available to the public, annual monitoring will be required for pollutant identification. EPA expects to have a

multi-lab validated PFAS analytical method available for detecting certain PFAS in wastewater in 2021.

5.2 Water Quality Based Effluent limitations (WQBEL)

The facility discharges to an unnamed drainage channel which flows to an unnamed tributary of the Animas River. The receiving water is 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 EPA approved Tribal water quality standards 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 CWA § 304(a) recommended national water quality criteria (WQC) to protect the uses of the receiving water(s).

EPA has reviewed Southern Ute Indian Tribe's Tribal Water Quality Requirements (WQR) for the development of WQBELs. The WQR were referenced because the discharge occurs on Fee Land then immediately enters Trust Land before discharging into the Animas River on Fee Land. The Tribe has been approved for implementation of EPA approved Tribal WQS on Trust Land, but the Tribe has yet to receive EPA approval for its Tribal WQS. The immediate proximity of the discharge to the Trust Land will have an impact on the water quality of the tributaries to the Animas River. The tribal WQR are defined in the document: "Tribal Water Quality Standards for the Southern Ute Reservation" (1996) (Please note that the referenced document title 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 have the designations contained in Table 2 for the receiving water.

Table 2 - WQR designated beneficial uses of the Animas River and tributaries.

Stream segment description	Beneficial Use	Modification and Qualifiers
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

The following pollutants were assessed to determine the reasonable potential (RP) to exceed the applicable WQC and WQR:

Ammonia – The 2013 WQC for ammonia are detailed in Appendix A. The acute criterion will be applied because the discharge frequency and duration expected from Bondad are not expected to have chronic impacts. An RP analysis on the data provided by Bondad for ammonia shows reasonable potential to discharge stormwater in excess of the WQBELs. The calculation for RP is detailed in Appendix A. The WQC calculate a WQBEL of 1.06 mg/L ammonia as nitrogen.

The WQR provide an equation for calculating the limit for acute toxicity in the Animas River to be 0.199 mg/L NH_3 ammonia as nitrogen or 7.35 mg/l ammonia as N.

The WQC will be used to establish the WQBEL for ammonia because is it more protective.

BOD – The WQC and WQR do not list BOD as a pollutant.

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 have criteria for TSS.

α-Terpineol - There are no WQC or WQR for α-Terpineol.

Benzoic acid - There are no WQC or WQR for Benzoic acid.

p-Cresol – There are no WQC or WQR for p-cresol.

Phenol – WQC for human health is 4,000 mg/L for recreation and 300,000 mg/L for consumption of fish. There are no aquatic WQC for phenol. WQR lists phenol as a pollutant but does not provide a limit for either acute or chronic toxicity. A quantitative RP analysis was not able to be conducted on this pollutant because monitoring data has not been reported for this analyte.

Total Zinc – The WQC aquatic toxicity criteria for zinc is calculated depending on the hardness of the receiving water. (Appendix A). The WQC aquatic criteria for dissolved zinc in

the Animas river is 138 mg/L. A quantitative RP analysis was not able to be conducted on this pollutant because monitoring data has not been reported for this analyte.

The WQR provides an equation for calculating the acute aquatic toxicity of zinc. The WQR aquatic criteria for dissolved zinc in the Animas River is 146 mg/l. A quantitative RP analysis was not able to be conducted on this pollutant because monitoring data has not been reported for this analyte.

pH – The WQC for aquatic toxicity requires that pH be maintained between 6.5-9.0 standard units at all times.

The WQR for aquatic toxicity requires that pH be maintained between 6.5-9.0 standard units at all times.

The effluent limitation of pH between 6.5 -9.0 standard units is applied from both the WQC and WRC because they are more protective of the receiving water than the ELG (Table 3). Both upper and lower limits are consistent with the previous permit.

5.3 Technology Based Effluent Limitations

The activities conducted at the landfill classify this facility as a non-hazardous waste landfill as defined by the Landfill Point Source Category Effluent Limitation Guideline (ELG) at 40 CFR part 445. ELGs were promulgated in January 2000 for the Landfill Point Source Category. According to phone conversations with the management of Bondad, operations began in 1996. Since Bondad began operation before promulgation of 40 CFR part 445, it is defined as an existing point source for the application of ELGs. Existing point sources require the application of the best practicable control technology currently available (BPT). Table 3 contains the requirements of the BPT ELG defined in 40 CFR 445.21

Table 3 - Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Regulated parameter	Maximum daily[1]	Maximum monthly avg.[1]
BOD	140	37
TSS	88	27
Ammonia (as N)	10	4.9
α-Terpineol	0.033	0.016
Benzoic acid	0.12	0.071
p-Cresol	0.025	0.014
Phenol	0.026	0.015
Zinc	0.20	0.11
pH	([2])	([2])

[1]Milligrams per liter (mg/L, ppm)

[2]Within the range 6 to 9.

6 PROPOSED PERMIT LIMITATIONS

Table 4 contains the proposed effluent limitations for the Permit.

Table 4 - Effluent Limitations - Outfall 001A.

Characteristic	30-Day Average a/	Daily Maximum a/	Limit Basis b/
Biochemical Oxygen Demand (BOD_5), mg/L	37	140	ELG
Total Suspended Solids (TSS), mg/L	27	88	ELG
Oil and Grease (O&G), mg/L	N/A	10	PP
Total Ammonia Nitrogen (as N), mg/L	4.9	1.06	ELG and WQC
α-Terpineol, mg/L	0.016	0.033	ELG
Benzoic acid, mg/L	0.071	0.12	ELG
p -Cresol, mg/L	0.014	0.025	ELG
Phenol, mg/L	0.015	0.026	ELG
Total Zinc, mg/L	0.11	0.20	ELG
The pH of the discharge shall not be less than 6.5 or greater than 9.0 standard units at any time.			WQC

a/ See Definitions, Part 1, for definition of terms.

b/ WQC = National Recommended Water Quality Criteria, PP= Previous Permit, ELG = Effluent Limitation Guideline

5 day Biochemical Oxygen Demand (BOD) – BOD has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric BOD limit from the ELG as an effluent limit. (40 CFR §445.21). The effluent limit for BOD is the same as in the previous permit. There are not WQC or WQR that apply to BOD.

Total Suspended Solids (TSS): TSS has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric TSS limit from the ELG as an effluent limit. (40 CFR

§445.21). The effluent limit for TSS is the same as in the previous permit. The narrative requirement of the WQC is expected to be accomplished by the ELG limitation. WQR do not have criteria.

Oil and Grease: This limit is included because of the vehicle maintenance facility onsite. An oil and grease sample is required for every discharge. A visual inspection for sheen is not required. The limit of 10 mg/L is consistent with the previous permit.

α-Terpineol – The chemical α-Terpineol has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric limit from the ELG as an effluent limit. (40 CFR §445.21). The effluent limit for α-Terpineol is the same as in the previous permit. There are not WQC or WQR that apply to α-Terpineol.

Benzoic acid – Benzoic acid has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric limit from the ELG as an effluent limit. (40 CFR §445.21). The effluent limit for benzoic acid is the same as in the previous permit. There are not WQC or WQR that apply to benzoic acid.

p -Cresol – The chemical p-Cresol has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric limit from the ELG as an effluent limit. (40 CFR §445.21). The effluent limit for p-cresol is the same as in the previous permit. There are not WQC or WQR that apply to p-cresol.

Phenol - Phenol has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric limit from the ELG as an effluent limit. (40 CFR §445.21). The ELG is more protective than the WQC and WQR. The effluent limit for phenol is the same as in the previous permit.

Zinc - Zinc has been determined as a pollutant of concern at landfills and this permit is proposing to include the numeric limit from the ELG as an effluent limit. (40 CFR §445.21). The ELG is more protective than the WQC and WQR. The effluent limit for zinc is the same as in the previous permit.

If an effluent limitation is exceeded, the Permittee is required to document the exceedance in the SWPPP. The Permittee is required to review the SWPPP, and activities conducted at Bondad which may have caused the exceedance. Then the Permittee must modify the best management practices described in the SWPPP to prevent additional exceedances. The Permittee is required to perform this action for every exceedance.

7 MONITORING REQUIREMENTS

The facility's stormwater management system is not expected to discharge under normal operation. In the event that a discharge from outfall 001A occurs, the Permittee must conduct the monitoring requirements contained in section 7.1. Since the discharges are expected to be infrequent, monitoring is required to be performed on every discharge. Grab samples are required, because the stormwater lagoon will accumulate stormwater runoff before discharge, the lagoon is assumed to be mixed by the inflows and relatively consistent in composition at the time of discharge.

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 at the frequency specified in Table 5. The Permittee is required to report all data obtained during

monitoring activities. The Permittee is required to report the 30 Day average only if two monitoring events are conducted within 30 days of each other.

Table 5 - Monitoring Requirements

Effluent Characteristic	Frequency	Sample Type a/
Total Flow, gallons	Each Discharge	Calculation from instantaneous measurement
Biochemical Oxygen Demand (BOD), mg/L	Each Discharge	Grab a/
Total Suspended Solids (TSS), mg/L	Each Discharge	Grab a/
Oil and Grease (O&G), mg/L	Each Discharge	Grab a/
Total Ammonia Nitrogen (as N), mg/L	Each Discharge	Grab a/
α-Terpineol, mg/L	Each Discharge	Grab a/
Benzoic acid, mg/L	Each Discharge	Grab a/
p -Cresol, mg/L	Each Discharge	Grab a/
Phenol, mg/L	Each Discharge	Grab a/
Total Zinc, mg/L	Each Discharge	Grab a/
pH, standard units	Each Discharge	Grab a/
Chemical Oxygen Demand (COD), mg/L b/	Each Discharge	Grab a/
Polycyclic Aromatic Hydrocarbons (PAHs) mg/L b/ c/	Each Discharge	Grab a/
Per- and polyfluoroalkyl substances (PFAS) mg/L d/	Once per year d/	Grab a/

a/ See Definitions, Part 1, for definition of terms.

b/ COD and PAH monitoring are only required if stormwater from the gas lease area operated by Red Willow is not contained and redirected away from the stormwater lagoon.

c/ 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.

d/ PFAS currently does not have an EPA approved 40 CFR 136 analytical method. Upon EPA developing a multi-lab validated test and making it available to the public, the discharge must be monitored once per year for PFAS. Since this activity is an attempt to quantify the potential to discharge PFAS, the monitoring must be performed once per year. If no discharges occur during the year, then the lagoon contents must be monitored at the time that the lagoon is emptied. The discharger must report a PFAS monitoring result and report it under Outfall 001-L for each complete year of permit coverage after the multi-lab validated method become available.

8 STORMWATER POLLUTION PREVENTION PLAN

A SWPPP must be developed specifically for the landfill. Any SWPPP that does not meet the requirements listed in the Permit must be amended to conform with the SWPPP requirements within 60 days after the effective date of the Permit.

9 BEST MANAGEMENT PRACTICES (BMPs)

The Permittee must identify, describe, and implement BMPs that will remove, reduce or otherwise prevent pollutants in stormwater discharges. The BMPs must include the stormwater management controls identified in Section 6 of the Permit. If any of the requirements are not applicable to the facility, the SWPPP must include a written explanation of inapplicability. If existing controls need to be modified or if additional controls are necessary, new controls must be implemented as soon as reasonable and practicable but not later than 30 days from the date of observation.

10 FACILITY INSPECTION REQUIREMENTS

There are three types of facility inspections required to comply with the Permit. An inspection must be conducted before and after every Forecasted Storm Event, as defined in Section 1 of the Permit, unless an inspection was conducted in the previous 7 days. The Permittee shall inspect its stormwater management facilities as described in Section 6.10 of the Permit. On a bi-annual basis, the Permittee is required to conduct a comprehensive site evaluation as described in Section 6.9 of the Permit. On a weekly basis, the Permittee is required to conduct preventative maintenance inspections of equipment for leaks as described in in Section 6.3.2 of the Permit.

11 REPORTING REQUIREMENTS

Reporting of Monitoring Results: 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.

12 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 utilized to determine federally-listed Endangered, Threatened, Proposed and Candidate species for La Plata County, Colorado. IPAC results and expected Impact are provided in Table 6.

Table 6 - Federally-Listed Endangered, Threatened, Proposed and Candidate species for La Plata County, Colorado

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

Symbols/Acronyms:

T	Threatened
E	Endangered
P	Proposed
C	Candidate
NE	No Effect
NLAE	Not Likely to Adversely Effect
LAE	Likely to Adversely Effect

This permit is not a new issuance for the facility. EPA does not anticipate any impacts on listed species associated with the issuance of this permit as it will not be associated with any new ground disturbance

or significant changes to the volume or points of discharge. The following is a biological evaluation for each species in Table 7:

-**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 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 at the Facility or in the effected 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 6.

UPDATE AFTER PUBLIC NOTICE

Updated August 13, 2021 - The Biological evaluation was updated after public notice. Refer to the Addendum: Public Notice and Response to Comments at the end of this document, before the Appendix, for more information

13 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 7 - Places worthy of preservation in La Plata, County Colorado identified by the National Register of Historic Places

Property Name	**City**	**Street & Number**
Animas Canon 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 mostly in the city of Durango. Those outside of Durango are not downstream of Bondad and are not likely to be affected by the issuance of this NPDES permit. Based upon the information provided by the NPS database, the EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources due to this permit issuance.

14 NOTIFICATION TO NEIGHBORING JURISDICTIONS

Prior to public notice a copy of the draft Permit, SoB, and notification letter were sent to the Tribe to alert it of the EPA's intention to issue a NPDES permit which may impact the water quality of waters of the Tribe.

15 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
(303) 312-6016

ADDENDUM:

PUBLIC NOTICE AND RESPONSE TO COMMENTS

The Permit and statement of basis were public noticed in the Durango Herald on June 30, 2021. The comment(s) received and the response(s) are provided below.

Comment:

The United States Fish and Wildlife Service was not able to concur with the EPA's original determination of "May Affect, not Likely to Adversely Affect" for listed species in Section 12 of the SoB. The receiving water does not support the proper habitat preferred by most of species. The species are unlikely to populate the area that would be impacted by discharges from the Facility. The EPA should reconsider the determination.

Response:

After informal consultation with the USFWS the EPA has made the Following changes to Section 12 Endangered Species Considerations of the Statement of Basis.

The Public Notice Version of Section 12:

Table 6 - Federally-Listed Endangered, Threatened, Proposed and Candidate species for La Plata County, Colorado

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

Symbols/Acronyms:

T Threatened
E Endangered
P Proposed
C Candidate

NLAA Not Likely to Adversely Affect
LAA Likely to Adversely Affect

This permit is not a new issuance for the facility. EPA does not anticipate any impacts on listed species associated with the issuance of this permit as it will not be associated with any new ground disturbance or significant changes to the volume or points of discharge. The following is a biological evaluation for each species in Table 7:

-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.

-Knowlton Cactus is listed as an endangered terrestrial plant. Issuance of this permit will not allow any additional ground disturbance and has been determined not likely to adversely affect the species.

-Mexican Spotted Owl is a threatened species. Issuance of this permit will not allow any additional ground disturbance and has been determined not likely to adversely affect the species.

-New Mexico Meadow Jumping Mouse is an endangered species. Issuance of this permit will not allow any additional ground disturbance and has been determined not likely to adversely affect the species.

-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.

-Southwestern Willow Flycatcher is an endangered species. Issuance of this permit will not allow any additional ground disturbance and has been determined not likely to adversely affect the species.

-Yellow-billed Cuckoo is an endangered species. Issuance of this permit will not allow any additional ground disturbance and has been determined not likely to adversely affect the species.

Critical habitat designation does not exist in La Plata County for all of the above listed species.

Issuance of this permit is not likely to adversely affect the endangered, Threatened, Proposed and Candidate Species in Table 6.

Note: During public Notice a copy of the draft Permit and this Statement of Basis was sent to the USFWS requesting concurrence with the EPA's finding that reissuance of this NPDES Permit is Not Likely to Adversely Affect any of the species listed as threatened or endangered, proposed, or candidate, for La Plata county by the USFWS under the Endangered Species Act nor their critical habitat.

UPDATE AFTER PUBLIC NOTICE

Section 12 revised after public notice

Table 6 - Federally-Listed Endangered, Threatened, Proposed and Candidate species for La Plata County, Colorado

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UPDATE AFTER PUBLIC NOTICE

Updated August 13, 2021 - The Biological evaluation was updated after public notice. Refer to the Addendum: Public Notice and Response to Comments at the end of this document, before the Appendix, for more information

Appendix A- Reasonable potential analysis for WQBELs

1. Data used for reasonable potential analysis

The United States Geological Service (USGS) operates a monitoring station immediately downstream of the point where discharges from Bondad enters the Animas River.

The figures below were provided by the USGS's National Water Information System on February 1, 2021. Data was available for the period starting March 8, 2016 through April 27, 2021. The 99th percentile for daily median temperature and pH are 21.8 ºC and 8.6 standard units respectively.

Figure 1- Daily Discharge measured at USGS station #09363500

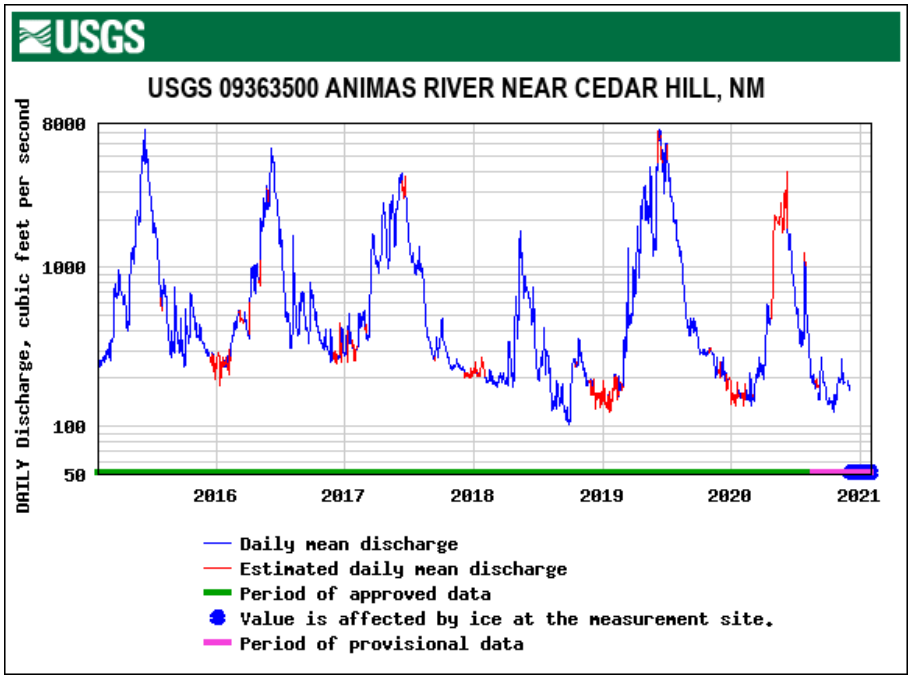


Figure 2 - Daily pH measured at USGS station #09363500

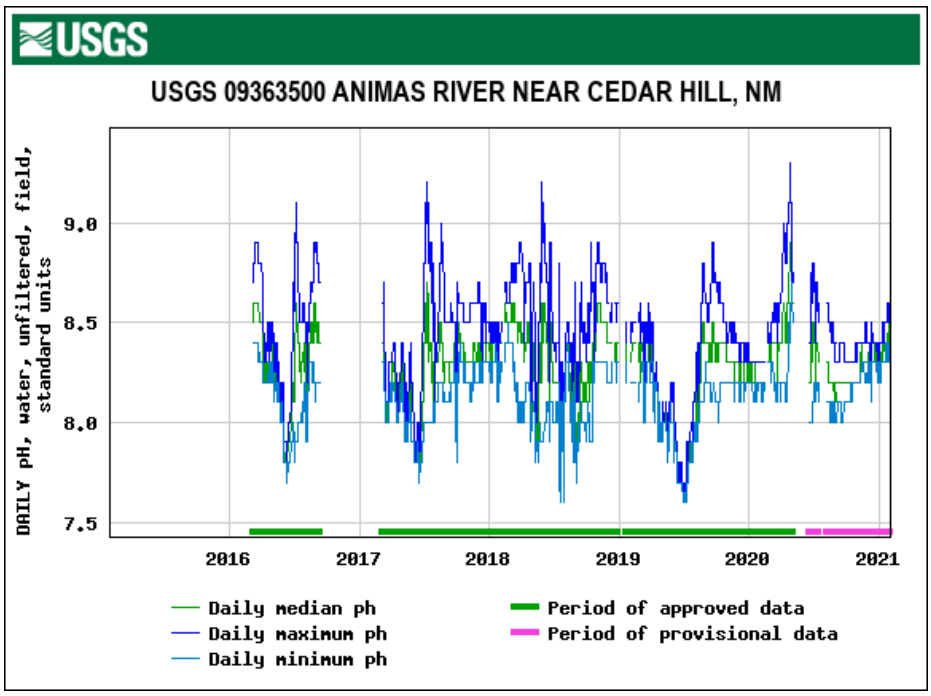


Figure 3 - Daily water temperature measured at USGS station #09363500

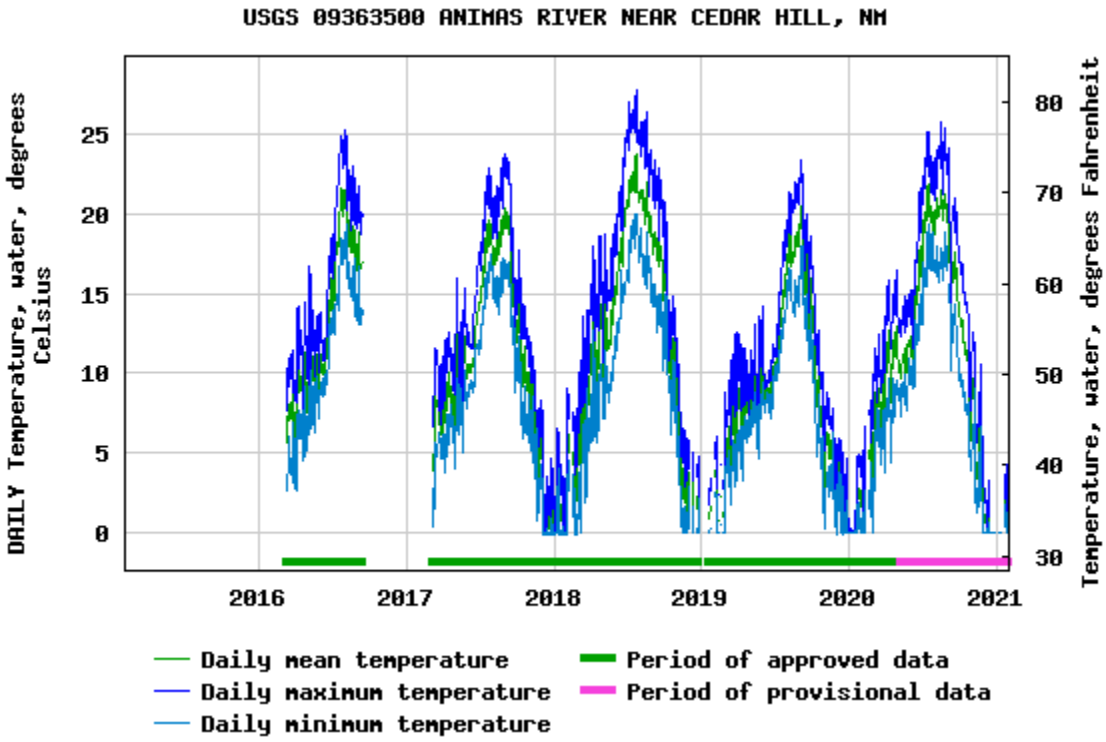
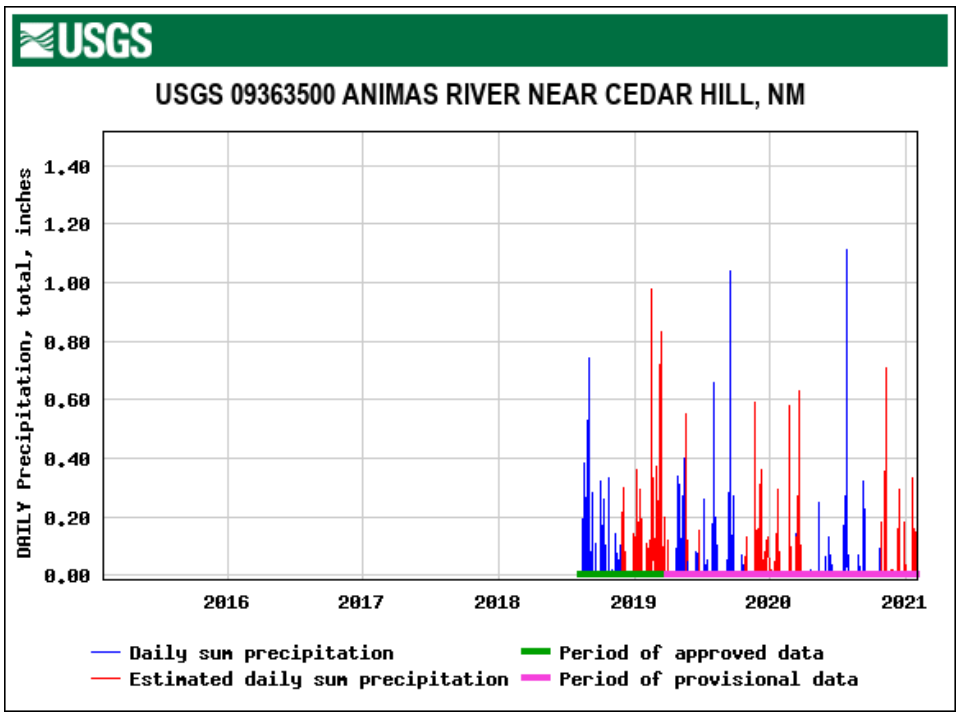


Figure 4 - Precipitation measured at USGS station #09363500



2 Ammonia – RP analysis for stormwater discharges to exceed WQC and WQR

2.1 National Recommended WQC

The 2013 Ammonia WQC Criterion Maximum Concentration (CMC) or Acute Toxicity Limit is defined by the equation:

$$CMC = MIN\left(\left(\frac{0.275}{1+10^{7.204-pH}}+\frac{39.0}{1+10^{pH-7.204}}\right),\right.$$
$$\left.\left(0.7249\times\left(\frac{0.0114}{1+10^{7.204-pH}}+\frac{1.6181}{1+10^{pH-7.204}}\right)\times\left(23.12\times 10^{0.036\times(20-T)}\right)\right)\right)$$

Ammonia increases in toxicity with increasing temperature and pH. In an effort to protect water quality even in extreme situations, the 99th percentile of median daily temperature (21.8 ^{o}C) and pH (8.6 standard units) reported by the USGS will be used to calculate ammonia WQBELs for Bondad.

CMC = 1.06 mg/L Ammonia as N

In calculating RP a coefficient of variation of 0.6 resulting in a RP multiplying factor of 13.2 for a single data point as defined in NPDES Permit Writer's Manual which can be found at -

https://www.epa.gov/npdes/npdes-permit-writers-manual. Table 1 contains the only data point reported for ammonia at 0.19 mg/L.

Ammonia RP 99th percentile calculation:

0.19 mg/L * 13.2 = 2.508 mg/L

2.508 mg/L > 1.06 mg/L

The RP analysis has determined that Bondad does have the potential to exceed the acute criterion of the 2013 WQC for ammonia as nitrogen. An ammonia as nitrogen WQBEL will be included in the effluent limitations.

2.2 Tribal Water Quality Requirements for Ammonia

The WQR are based on the "Ambient Water Quality Criteria for Ammonia – 1984" (EPA 440/5-85-001). Please refer to that document for an in-depth explanation of the equations and rationale used below. Aquatic life criteria for ammonia (mg/L NH_3) are expressed as a function of pH (8.6) and Temperature (21.8 ºC) as follows:

Acute = 0.52/FT/FPH/2

Where:

FT = 10^(0.03*(20-TCAP)

FPH = 1

FT= 1.072

TCAP = 20ºC

Acute Criterion = 0.242 mg/L NH_3 or 0.199 mg/L as Nitrogen

The data reported and WQC have units of total ammonia as N. It will be necessary to convert the WQR to the same units for the RP calculation and determination of which criteria is more protective of water quality.

From the 2013 Ammonia WQC:

Each separate fraction of total ammonia can be calculated in freshwater from the

Henderson-Hasselbach equation if the pH and p*Ka* are known:

NH_{4+} = Total ammonia/(1+ antilog (pH-p*Ka*)) = Total ammonia – NH_3 (Wood 1993)

and,

p*Ka* = 0.09018 + (2729.92/(273.2 + T)) (Emerson et al. 1975)

Fraction of NH_3 in total ammonia can be calculated by solving the Henderson-Hasselbach equation for NH_3/total ammonia = fraction NH_3.

fNH_3 = 1/(10^(pKa-pH)+1) = .027

Total ammonia = conc. NH_3/ fNH_3 = 7.35 mg/L at 21.8 °C and 8.6 pH

Since one data point was reported a multiplying factor of 13.2 will be used to determine the 99th percentile value for RP (See section 15.1). RP exists to exceed WQR if 99th percentile is greater than the Acute Criterion.

99th percentile = 0.19 mg/l NH_3 as Nitrogen *13.2 = 2.508 mg/l NH_3 as Nitrogen.

2.508 mg/l NH_3 as Nitrogen < 7.35 mg/L NH_3 as Nitrogen

The discharge does not have reasonable potential to exceed the WQR.

3 Zinc

3.1 National Water Quality Criteria

The WQC provides an equation for determining the acute toxicity of zinc:

Zinc Acute toxicity limit = EXP(M_a*ln(hardness)+B_a)*(CF)

Where:

M_a = 0.8473

B_a = 0.884

CF = 0.978

United States Bureau of Reclamation final environmental impact statement for the Animas La Plata Project (2000) states the Animas River has an average hardness of 125 mg/l as $CaCO_3$.

Zinc Acute Toxicity limit = 138 mg/L dissolved Zinc

3.2 Tribal Water Quality requirements

WQR provide an equation to calculate the aquatic acute toxicity of zinc as a function of Hardness.

Acute Toxicity Criteria - ATC = EXP(0.8745 X ln(hardness) + 0.7634)

United States Bureau of Reclamation final environmental impact statement for the Animas La Plata Project (2000) states the Animas River has an average hardness of 125 mg/l as $CaCO_3$.

Acute toxicity criteria for Zinc at 125 mg/l as $CaCO_3$ = 146 mg/L