REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

NPDES Permit No NM0031194

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

U.S. Bureau of Reclamation
Cutter Lateral Treatment Plant
1235 La Plata HWY
Farmington, NM 87401

is authorized to discharge from a facility located on County Road 7575, 3 miles east of Highway 550/County Road 7575, San Juan County, New Mexico. The discharge will be to Blanco Wash, a tributary of Canon Largo, thence to San Juan River (San Juan River Basin), from a point located approximately

Outfall 001: Latitude 36° 24' 39" North and Longitude 107° 47' 34" West

in accordance with this cover page and the effluent limitations, monitoring requirements and other conditions set forth in Part I, Part II, and III.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Charles Maguire
Director
Water Division (6WQ)

Prepared by

Tung Nguyen
Environmental Engineer
Permitting Section (6WQ-PP)

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
lbs	Pounds
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SS	Settleable solids
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USGS	United States Geological Service
WLA	Wasteload allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plan

PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. OUTFALL 001 - FINAL Effluent Limits – 0.12 MGD

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge backwash wastewater from Outfall 001 to Blanco Wash, a tributary of Canon Largo, thence to San Juan River. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT	DISCHARGE LIMITATIONS MINIMUM	DISCHARGE LIMITATIONS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	9.0 s.u.	Daily	Instantaneous Grab (*5)

POLLUTANT	30-DAY AVG, lbs/day, unless noted	DAILY MAX lbs/day, unless noted	30-DAY AVG mg/l, unless noted (*1)	7-DAY AVG mg/l, unless noted (*1)	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	N/A	N/A	N/A	Daily	Totalized meter
TSS	20	30	20	N/A	30	Weekly	Grab
TRC	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily (*3)	Instantaneous Grab (*5)
Aluminum	N/A	N/A	N/A	N/A	Report	Quarterly	Grab
Manganese	N/A	N/A	N/A	N/A	Report	Quarterly	Grab
TDS	N/A	N/A	N/A	N/A	Report	Quarterly	Grab

WHOLE EFFLUENT TOXICITY TESTING 7-DAY CHRONIC NOEC FRESHWATER (*7)	NOEC	MEASUREMENT FREQUENCY (*6)	SAMPLE TYPE
Ceriodaphnia dubia	Report	once/permit term	Grab
Pimephales promelas	Report	once/permit term	Grab

Footnotes:

*1 See **Appendix A of Part II** of the permit for minimum quantification limits.
*2 Percent removal is calculated using the following equation:
[average monthly influent concentration (mg/l) – average monthly effluent concentration (mg/l)] ÷ [average monthly influent concentration (mg/l)] x 100.
*3 When drinking water (product) is introduced to the treatment process
*4 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*5 Analyzed within 15 minutes of collection.
*6 The test shall take place between November 1 and April 30; during the 1st to 4th year of the permit term or as soon as possible. EPA may reopen the permit if the test fails.
*7 Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements for additional WET monitoring and reporting conditions.

3. FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

There shall be no discharge of floating solids or visible foam in other than trace amounts.
There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

4. SAMPLE LOCATION

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream. The sample point shall be clearly marked by the facility if it is not at the final outfall location. There shall be no flow from any source into the piping system after the sample point and prior to the final outfall.

Sampling shall occur at a location before the storm retention pond.

B. SCHEDULES OF COMPLIANCE

None

C. MONITORING AND REPORTING (MINOR DISCHARGERS)

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at https://netdmr.epa.gov. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-7179. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted quarterly.

1. Reporting periods shall end on the last day of the months March, June, September and December.

2. The permittee is required to submit regular reports as described above postmarked no later than the 28th day of the month following each reporting period.

3. NO DISCHARGE REPORTING: If there is no discharge at Outfall 001 during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

D. OVERFLOW REPORTING

The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary).

Overflows that endanger health or the environment shall be orally reported at (214) 665-6595 and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows that endanger health or the environment shall be provided to EPA and the NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

E. POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

a. The influent loadings, flow and design capacity;

b. The effluent quality and plant performance;

c. The age and expected life of the wastewater treatment facility's equipment;

d. Bypasses and overflows of the tributary sewerage system and treatment works;

e. New developments at the facility;

f. Operator certification and training plans and status;

g. The financial status of the facility;

h. Preventative maintenance programs and equipment conditions and;

i. An overall evaluation of conditions at the facility.

F. OTHER REQUIREMENTS

No later than one year after the discharge begins from the proposed facility, the permittee must complete and submit Items V and VI of NPDES application Form 2C. In additional, the flowing pollutants shall be tested (at least once) pursuant to 20.6.4.900.J NMAC:

Pollutant	Pollutant	Pollutant
Antimony, (dissolved (D))	Zinc, (D)	Dieldrin
Arsenic, (D)	Aldrin	2,3,7,8-TCDD dioxin
Nickel, (D)	Benzo(a)pyrene	Hexachlorobenzene
Selenium, (D)	Chlordane	PCBs*
Thallium, (D)	4,4'-DDT and derivatives	Tetrachloroethylene

* PCBs shall be tested using Method 1668A as requested by NMED: Chlorinated Biphenyl Congeners in Water, Soil, Sediment and Tissue by High Resolution Gas Chromatography/High Resolution Mass Spectrometry (HRGC/HRMS).

The test results can be used and submitted in the renewal application.

PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL)

EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA approved methods with a published ML at or below the effluent limit, if specified:

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4, 6-Dinitro-0-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than

the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas and concurrently to NMED within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

None.

C. PERMIT MODIFICATION AND REOPENER

In accordance with [40 CFR Part 122.44(d)], the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, or new State water quality standards are established and/or remanded by New Mexico Water Quality Control Commission, respectively.

In accordance with [40 CFR Part 122.62(s)(2)], the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at [40 CFR Part 124.5].

E. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC FRESHWATER)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

   a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED ON DMR AS FINAL OUTFALL:	001
EFFLUENT DILUTION SERIES (%):	32, 42, 56, 75 and 100
CRITICAL DILUTION (%):	100
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

   Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA 821 R 02 013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

   Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA 821 R 02 013 or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

   b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality or sublethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

   c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- 60% of the surviving control females must produce three broods.
- The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.
- The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.
- A PMSD range of 13 - 47 for Ceriodaphnia dubia reproduction;
- A PMSD range of 12 - 30 for Fathead minnow growth.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

- For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.
- For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

- If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 below.

c. Dilution Water

- Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

  - toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

  - toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

- If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 2.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

  - a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

  - the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

  - the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 3 below; and

  - the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites (**grab** sample is authorized for this permit)

- The permittee shall collect **two grab** samples from the outfall(s) listed at Item 1.a above.

- The permittee shall collect a second grab sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the grab samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the

last portion of the first grab sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

- The permittee must collect the grab samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

- If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent grab sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent grab sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached for EPA review.

c. The permittee shall submit the results of each valid toxicity test as follows below. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.

- Pimephales promelas (Fathead Minnow)

  - If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a ‘1’; otherwise, enter a ‘0’ for Parameter No. TLP6C

  - Report the NOEC value for survival, Parameter No. TOP6C

- Report the LOEC value for survival, Parameter No. TXP6C
- Report the NOEC value for growth, Parameter No. TPP6C
- Report the LOEC value for growth, Parameter No. TYP6C
- If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP6C
- Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C

- Ceriodaphnia dubia
  - If the NOEC for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP3B
  - Report the NOEC value for survival, Parameter No. TOP3B
  - Report the LOEC value for survival, Parameter No. TXP3B
  - Report the NOEC value for reproduction, Parameter No. TPP3B
  - Report the LOEC value for reproduction, Parameter No. TYP3B
  - If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B
  - Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B

d. If retests are required by EPA, enter the following codes:

- For retest number 1, Parameter 22415, enter a '1' if the NOEC for survival is less than the critical dilution; otherwise, enter a '0'
- For retest number 2, Parameter 22416, enter a '1' if the NOEC for survival is less than the critical dilution; otherwise, enter a '0'
- For retest number 3, Parameter 51443, enter a '1' if the NOEC for survival is less than the critical dilution; otherwise, enter a '0'