REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

NPDES Permit No NM0028011

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"),

Village of Jemez Springs
P. O. Box 269
Jemez Springs, NM 87025

14609 Highway 4, approximately 2 miles south of Jemez Springs, Sandoval County, New Mexico, to receiving waters named Jemez River, thence to the Rio Grande in Segment No. 20.6.4.107 of the Rio Grande Basin, from the following coordinates:

Outfall 001: Latitude 35° 43' 36" North, Longitude 106° 42' 48" West

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

This permit, prepared by Aron K. Korir, Physical Scientist, Permitting Section (6WD-PE), shall become effective on **June 1, 2021**

This permit and the authorization to discharge shall expire at midnight, **May 31, 2026**

Issued on **April 29, 2021**

Charles Maguire

Charles W. Maguire
Director
Water Division (6WD)

(This page intentionally left blank)

PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. FINAL Effluent Limits – 0.075 MGD Design Flow

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 treated wastewater to the Jemez River, in Segment Number 20.6.4.107, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	**DISCHARGE LIMITATIONS**						**MONITORING REQUIREMENTS**	
	lbs/day, unless noted			mg/l, unless noted				
PARAMETER	30-DAY AVG	7-DAY AVG	DAILY MAX	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	11.3	16.9	***	30	45	***	1/Month	Grab (1)
Total Suspended Solids	11.3	16.9	***	30	45	***	1/Month	Grab (1)
Percent Removal BOD_5	≥85%	***	***	***	***	***	1/Month	Calculation (2)
Percent Removal TSS	≥85%	***	***	***	***	***	1/Month	Calculation (2)
E. Coli Bacteria (4)	3.58×10^8 cfu/day	***	***	126	***	410	1/Month	Grab (1)
Nitrogen, Total (7)	2.97	***	***	Report	***	4.75	2/Month	Grab (1)
Phosphorus, Total	0.626	***	***	Report	***	1.0	2/Month	Grab (1)
Arsenic, Dissolved	0.094	***	***	***	***	150 ug/L	1/Month	Grab (1)
Boron, Dissolved	1.34	***	***	***	***	2,150 ug/L	1/Month	Grab (1)
Total Residual Chlorine(9)	***	***	***	***	***	19 ug/l	Daily	Instantaneous Grab (3)
Aluminum Total Recoverable (8)	1.03	N/A	N/A	***	N/A	1,650ug/L	1/Month	Grab (1)

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	8.8	5/Week	Instantaneous Grab (3)

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
Whole Effluent Toxicity Testing (48 Hr. Static Renewal)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Report	Once/Term (5, 6)	Grab
Pimephales promelas	Report	Report	Once/Term (5, 6)	Grab

Footnotes:

1. Monitoring must be conducted according to test procedures approved under 40CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
2. Percent removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] x 100.
3. Instantaneous grab a field measurement that is the analysis of a sample less than 15 minutes from the time of collection only when using chlorine.
4. Bacteria reporting units MUST be either cfu/100mL or MPN.
5. Once per permit term. This permit does not establish requirements to automatically increase WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5-business days of notification the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any. (See Part II, Section D).
6. Sampling for the whole effluent toxicity test shall occur between the first period between November 1 and April 30, after the permit effective date.
7. Total Nitrogen is defined as the sum of Nitrate +Nitrite (N + N), and Total Kjeldahl Nitrogen (TKN). Total Nitrogen is defined as TKN + Nitrites and Nitrates, as found in the TMDL for the Jemez River approved by EPA September 15, 2009.
8. Compliance schedule to monitor and report total recoverable aluminum data for the first three years from the effective date of this permit. Please refer to part 1.B. The pollutant shall be tested using EPA approved method as found in CFR 136 table IB, for the determination of total recoverable metals, and as found in 20.6.4.900.2 The criteria is based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the New Mexico Environment Department (NMED). The NMED specification for filtration can be found at: https//www.env.nm.gov/swqb/SOP/documents/82ChemicalSamplingSOP4-11-2016.pdf. At this website, find chemical sampling in lotic environments part 6.1.4 address total recoverable filtration.

9. 9. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. Required when chlorine is used as either backup bacteria control or when disinfection of plant treatment equipment is required.

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.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge after the final treatment unit and prior to the receiving stream.

B. SCHEDULE OF COMPLIANCE

1. Total Recoverable Aluminum

a. The permittee shall achieve compliance with the total recoverable Aluminum effluent limitations specified for discharges within three (3) years from the effective date of the permit.

b. Monitor for total recoverable Aluminum and submit quarterly progress reports for the first three years from the effective date of this permit.

2. Boron Sanitary Sewer Study

Conduct a sanitary sewer survey to identify sources of dissolved boron being contributed to the collection system. The survey must include sample collection at representative locations throughout the sewer collection system, including specific industrial/commercial users with higher potential for elevated levels of boron and of treated drinking water supplied to customers of the public water supply (as a baseline of contributions from domestic wastewater sources). Samples must be analyzed for boron using 40 CFR 136 sufficiently sensitive test methods with a ML at or below the New Mexico Water Quality Standard.

a. Within three (3) months ot the effective date of the permit, submit a proposed study plan to EPA and NMED containing: monitoring of raw and treated drinking water provided to Village customers (Jemez Springs Domestic Water Association); monitoring of major segments of the collection system; monitoring of effluent from select commercial and industrial users with potential to have higher levels of boron (e.g., those with effluent containing waters from other sources than the treated public water supply system; those with industrial or commercial processes that would add boron to the waste stream; etc.); collecting at least three (3) grab samples from each monitoring location; and procedures for collection of samples to ensure batch or intermittent discharges into the collection system are captured in addition to continuous flows.

b. Within twelve (12) months of the effective date of the permit, complete collection of samples.

c. Withing fifteen (15) months of the effective date of the permit, submit report with results of the study and conclusions to EPA and NMED.

d. Submit quarterly progress reports from the effective date of this permit until completion of the study and submission of the final report.

C. MONITORING AND REPORTING (MINOR DISCHARGERS)

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

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 quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.

3. If any 7-day average or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.

4. Any 30-day average, 7-day average, or daily maximum value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.

5. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five-day Biochemical Oxygen Demand (BOD_5) or for five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), as applicable, where the permittee can demonstrate long-term correlation of the method with BOD_5 or $CBOD_5$ values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.

6. 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 to EPA 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 which endanger health, or the environment shall be provided to EPA and NMED within 5 days of the time the permittee becomes aware of the circumstance.

7. CONTRIBUTING INDUSTRIES

The following pollutants may not be introduced into the treatment facility:

a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges.
c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference.
d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.
e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

D. 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.

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.

3. 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 NMED within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

4. 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 water quality standards are established and/or remanded.

In accordance with 40 CFR Part 122.62(a)(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.

5. WHOLE EFFLUENT TOXICITY TESTING (48 HOUR ACUTE 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

CRITICAL DILUTION (%): 35%

EFFLUENT DILUTION SERIES (%): 15%, 20%, 26%, 35%, and 47%

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA/821/R/02/012, or the latest 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.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA/821/R/02/012, or the latest 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 defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute 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.

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.

d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

e. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

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:

i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: Daphnia pulex survival test; and Fathead minnow survival test.

iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for: Daphnia pulex survival test; and Fathead minnow survival test.

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 Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically 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 02 012 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 90% 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 an NOEC of not less than the critical dilution for the reporting requirements found in Item 3 below.

c. Dilution Water

i. 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.

(A) Toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(B) Toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.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) A synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control.

(B) The test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);

(C) The permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and

(D) 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

i. The permittee shall collect two flow weighted composite samples from the outfall(s) listed at Item 1.a above.

ii. The permittee shall collect a second composite sample for use during the 24 hour renewal of each dilution concentration for both tests. The permittee must collect the composite 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 composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

iii. The permittee must collect the composite 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.

iv. 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 composite 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. The effluent composite 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 Part in accordance with the Report Preparation Section of EPA 821 R 02 012, 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 Survival 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 report the following results of each valid toxicity test. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.

i. Pimephales promelas (Fathead minnow)

(A) 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. TEM6C.

(B) Report the NOEC value for survival, Parameter No. TOM6C.

(C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

ii. Daphnia pulex

(A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.

(B) Report the NOEC value for survival, Parameter No. TOM3D.

(C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

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

i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

ii. For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."