## NPDES Permit No NM0020150

# 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"),

City of Belen 100 South Main Street Belen, NM 87002

is authorized to discharge from a facility located at 1300 Conservancy Road, Belen, in Valencia County, New Mexico. The discharge will be to receiving waters named Bosque Drain, thence to the Rio Grande, in Segment No. 20.6.4.105 of the Rio Grande Basin,

the discharge is located on that water at the following coordinates:

Outfall 001: Latitude  $34^{\circ}$  38' 32" North, Longitude  $106^{\circ}$  46' 36" 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 is prepared by Jim Afghani, Environmental Engineer, Permitting Section (6WQ-PE).

This is a reissuance of the current NPDES permit and shall become effective on July 1, 2020

This permit and the authorization to discharge shall expire at midnight, June 30, 2025

Issued on June 25, 2020

Charles Maguire

Charles W. Maguire

Director

Water Division (6WD)

#### **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 Publicly 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 plant

## PART I – REQUIREMENTS FOR NPDES PERMITS

## SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

## 1. Effluent Limits – 1.20 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 municipal wastewater from Outfalls 001. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT	MINIMUM	MAXIMUM	FREQUENCY	ТҮРЕ
pН	6.6 s.u.	9.0 s.u.	Twice/Week	Grab

POLLUTANT	30-DAY AVERAGE	7-DAY AVERAGE	30-DAY AVERAGE	7-DAY AVERAGE	DAILY MAXIMUM	FREQUENCY	TYPE
Flow	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day	300 lbs/day	450 lbs/day	30 mg/L	45 mg/L	N/A	3/Week	6-Hr Composite
BOD% Removal	≥85% (*1)	N/A	N/A	N/A	N/A	1/Month	N/A
TSS% Removal	≥85% (*1)	N/A	N/A	N/A	N/A	1/Month	N/A
Total Suspended Solids	300 lbs/day	450 lbs/day	30 mg/L	45 mg/L	N/A	3/Week	6-Hr Composite
E. Coli Bacteria	5.73X 10 <sup>9</sup> (*3)	Report (*3)	126 (*2)	N/A	410 (*2)	3/Week	Grab (*4)
Total Residual Chlorine	N/A	N/A	N/A	N/A	19 ug/L	Daily	Grab (*4)
Nitrate	N/A	N/A	N/A	Report	10,000 ug/L (*5)	3/Week	6-Hr Composite
Dichlorobromomethane	N/A	N/A	N/A	Report	5.6 ug/L (*5)	3/Week	6-Hr Composite

WHOLE EFFLUENT TOXICITY TESTING (7-day Static Renewal)	VALUE	FREQUENCY	TYPE
Ceriodaphnia dubia (Cd)	Report	1/Quarter (*6)	24-Hr Composite
Pimephales promelas (Pp)	Report	1/Quarter (*6)	24-Hr Composite

#### Footnotes:

- \*1. Percent removal = {(Avg. Influent concentration Avg. effluent concentration) I Avg. Influent concentration] x 100}
- \*2. Colony forming units (cfu) per 100 mL or Most Probable Number (MPN/100 mL). The 30-day average must be calculated and reported using the Geometric Mean of the sample during the monitoring period.
- \*3. Colony forming units (cfu) per day. Loading is calculated by multiplying the bacteria concentration (in cfu/100 mL) \* flow (in MGD) \*3.79 x 10<sup>7</sup> [a conversion factor].
- \*4 Instantaneous Grab. Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. For <u>TRC</u>, the effluent limitation is the instantaneous maximum and cannot be averaged for reporting purposes. <u>TRC</u> limitations will apply when chlorine is used in any part of the treatment process, either alone, or in combination with ultraviolet light treatment.
- \*5. Monitoring to begin from the effective date and continue during initial three (3) years of the final permit. After initial three (3) years of monitoring, effluent limits shall be met.
- \*6. Once per quarter. If the first full year of testing, four (4) quarterly tests pass, then the frequency maybe reduced to 1/6-months for Cd and 1/year for Pp. See Part II.6 of the Permit for monitoring frequency reduction. The permittee must receive a written approval for monitoring reduction from the permitting authority before reduction is allowed. If any test fails, testing frequency will continue at 1/quarter until the expiration date of the permit. Additionally, for this failure, TRE requirements, as defined in Part II, Section E, Whole Effluent Toxicity Testing Requirements, will be conducted. At the expiration date of this permit, until a renewal permit is issued, biomonitoring frequency monitoring reverts to 1/quarter until the permit is re-issued. See Part II, Section E of the permit.

#### A. 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. In addition, 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.

#### B. SCHEDULES OF COMPLIANCE

The permittee shall submit a detailed plan to test for nitrate and dichlorobromomethane (bromodichloromethane) within two (2) months after the effective date of the permit to both EPA and NMED for approval. The plan must also include strategies to control effluent concentrations of dichlorobromomethane (bromodichloromethane) and nitrate in order to meet the NMQWS at the treatment facility. Once approved, the permittee must collect and analyze samples for nitrate and dichlorobromomethane (bromodichloromethane) three (3) times per week or more frequent during first (1), second (2) and third (3) year of the permit. The results of this study shall be attached to the DMR reports to EPA. At the end of third year, the treatment facility shall meet the effluent limitations for both pollutants.

### C. MONITORING AND REPORTING (MAJOR DISCHARGERS)

The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge. Monitoring results must be reported to EPA electronically. To submit electronically, access the Net-DMR website at www.epa.gov/netdmr, and contact the R6NetDMR@epa.gov in-box for further instructions.

- 1. Reporting periods shall end on the last day of the month.
- 2. The permittee is required to submit regular monthly reports as described above no later than the 28th day of the month following each reporting period.
- 3. The annual sludge report required in part IV of the permit is due on February 19 of each year and covers the previous calendar year from January 1 through December 31.
- 4. NO DISCHARGE REPORTING: If there are no discharges at Outfalls 001 and 002 during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.
- 5. If any 30-day average 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.
- 6. Any 30-day average 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.

7. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for the five-day Biochemical Oxygen Demand (BOD<sub>5</sub>), or for the five-day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), as applicable, where the permittee can demonstrate long term correlation of the method with BOD<sub>5</sub> or CBOD<sub>5</sub> 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.

#### 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 to EPA at (214) 6656595, <u>and NMED Surface Water Quality Bureau at (505) 827-0187</u>, 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. APPLICATION, DMR, AND COMPLIANCE STATUS REPORT

A duplicate copy of application for permit renewal, monthly Discharge Monitoring Report, and compliance status report, if there are any, shall be sent to New Mexico Environment Department (NMED) at the mailing address listed in Part III of this permit.