

**NPDES PERMIT NO. NM0029149**  
**FACT SHEET**

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

**APPLICANT**

Village of Maxwell  
P.O. Box 356  
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**ISSUING OFFICE**

U.S. Environmental Protection Agency  
Region 6  
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**DATE PREPARED**

April 16, 2020

**PERMIT ACTION**

Proposed reissuance of the current NPDES permit issued on May 30, 2014 with an effective date of July 1, 2014, and an expiration date of June 30, 2019

**RECEIVING WATER – BASIN**

Unnamed dry arroyo, thence to Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin

## 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
F&WS	United States Fish and Wildlife Service
mg/l	Milligrams per liter (one part per million)
ug/l	Micrograms per liter (one part per billion)
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
ML	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
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
UV	Ultraviolet light
USFWS	United States Fish & Wildlife Service
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

As used in this document, references to State shall mean State of New Mexico

## I. CHANGES FROM THE PREVIOUS PERMIT

- Sufficiently Sensitive Methods requirements have been added; and,
- DMR electronic reporting requirements have been added.

## II. APPLICANT LOCATION and ACTIVITY

The facility is located at 316 Maxwell Ave, Maxwell, Colfax County, New Mexico. The Maxwell WWTP has a design flow capacity of 0.02 MGD serving a residential population of 340 and is classified as a minor municipal discharger under the Federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program.

The treatment at the facility consists of a Parshall Flume plus staff gage, a bar screen, and a splitter box, two lagoons, a chlorine and a dechlorination chamber. Raw wastewater currently flows by gravity to the headworks of bar the plant. The influent enters the headworks through a 4" Parshall flume and proceeds through a ½" rectangular manually cleaned screen.

Following the headworks, the flow is divided equally through a splitter box to two lagoons. The splitter box provides the option of operating the lagoons in parallel, in series, or it also provides the option of bypassing the south lagoon by routing the wastewater from the north lagoon directly to the chlorine contact chamber. The facility installed a manhole to allow gravity flow from the headworks inlet past the bar screen and past the split box. This was installed to allow influent to the south lagoon.

The wastewater, if discharging, would then proceed to the chlorine contact chamber where Chlorine tablets are added to a Spears dispenser for disinfection. Baffles in the chlorine contact chamber increase detention time. The flow is then sent through a weir plate with a metal gauge that measures flow in gallons per minute. The weir is the primary measurement device and, when discharging, is calibrated by the operator using a bucket and a watch to measure the fill time of the bucket. However, no calibration records were available.

After chlorination, the flow enters a dechlorination unit on the line headed to the outfall. The facility discharge is to unnamed dry arroyo, thence to Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin. The discharge is located at Latitude 36° 31' 55" N and Longitude 104° 32' 16" W, in Colfax County, New Mexico.

## III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A which was submitted to EPA on April 13, 2020, is presented in Table 1 below:

**TABLE 1**

Parameters	
Flow	0.02 MGD
Temperature, winter	<10° C

pH, minimum, standard units (su)	6.6
pH, maximum, standard units (su)	9
BOD <sub>5</sub>	4.5
TSS	7.7
Ammonia (NH <sub>3</sub> )	11.8

According to the DMRs, this facility has not discharged since 2006.

#### IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water”; more commonly known as the “swimmable, fishable” goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The previous permit has an expiration date of June 30, 2019. The application was received on April 13, 2020. The permit is administratively continued until this draft permit is issued.

#### V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

##### A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 require that NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

Technology-based effluent limitations are established in the proposed draft permit for TSS, BOD<sub>5</sub> and percent removal for each. Water quality-based effluent limitations are established in the proposed draft permit for ammonia, E. coli bacteria, DO, TRC and pH.

##### B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of

guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

**BPT** - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

**BCT** - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

**BAT** - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The Village of Maxwell is a POTW (employing waste stabilization ponds as the principal process) that has technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. The BOD<sub>5</sub> limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average are found at 40 CFR §133.102(a). The 65% percent (minimum) removal for BOD<sub>5</sub> and TSS is found at 40 CFR §133.105. The previous permits rationale established technology-based TSS limitations using waste stabilization lagoon standards contained in 40 CFR §133.103. The previous permit's TSS limitations of 90 mg/l and 135 mg/L for 30-day average and 7-day average, respectively, are continued in this permit.

Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTW's, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l \* 8.345 lbs/gal \* design flow in MGD

30-day average BOD<sub>5</sub> loading = 30 mg/l \* 8.345 lbs/gal \* 0.02 MGD

30-day average BOD<sub>5</sub> loading = 5.007 lbs

7-day average BOD<sub>5</sub> loading = 45 mg/l \* 8.345 lbs/gal \* 0.02 MGD

7-day average BOD<sub>5</sub> loading = 7.5105 lbs

Adjusted TSS Requirements for Waste Stabilization Ponds:

30-day average TSS loading = 90 mg/l \* 8.34 conversion factor \* 0.02 MGD

30-day average TSS loading = 15 lbs/day

7-day average TSS loading = 135 mg/l \* 8.34 conversion factor \* 0.02 MGD

7-day average TSS loading = 23 lbs/day

A summary of the technology-based limits for the facility is shown in Table 2:

Final Effluent Limits – 0.02 MGD design flow.

**TABLE 2**

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			
	lbs/Day		mg/l (unless noted)	
Parameter	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.
Flow	N/A	N/A	Measure MGD	Measure MGD
BOD <sub>5</sub>	5.0 lbs	7.5 lbs	30	45
BOD <sub>5</sub> , % removal	---	---	≥ 65% (*1)	---
TSS	15 lbs	23 lbs	30	45
TSS, % removal	---	---	≥ 65% (*1)	---
pH	N/A	N/A	6.0 – 9.0 standard units	

Footnotes:

\*1 Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.

### C. WATER QUALITY BASED LIMITATIONS

#### 1. General Comments

Water quality-based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained or attained.

#### 2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

#### 3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (amended 20.6.4 NMAC, approved on August 11, 2017). The facility discharge is to unnamed dry arroyo, thence to Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin. This segment includes the designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

#### 4. Permit Action - Water Quality-Based Limits

The Clean Water Act in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at (40 CFR §122.44 (d)] state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant. Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based).

State WQS that are more stringent than effluent limitation guidelines are as follows:

##### a. BACTERIA

Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin is listed on the 2018-2020 Integrated List as impaired due to E. coli bacteria, Aluminum (Total recoverable), nutrients, and temperature. NMED developed E. coli bacteria and nutrients TMDLs for Assessment Units in the Canadian River and Dry Cimarron Watershed, which was approved by EPA on September 18, 2019. The Maxwell WWTP (NM0029149) discharges to Canadian River (Cimarron River to Chicorica Creek), however, E. coli bacteria and nutrient WLA were not assigned to the Village of Maxwell in the TMDL because the facility has reported no discharge since 2006 and NMED assumed that the facility may not renew their NPDES permit in the future. The State of New Mexico WQS criteria applicable to the primary contact designated use of the receiving stream are the monthly geometric mean of E. coli bacteria of 126 cfu/100 mL (or MPN/100 ml) and single sample of 410 cfu/100 mL (or MPN/100 mL). The results for E. coli may be reported as either colony forming units (CFU) or the most probable number (MPN) depending on the analytical method used. The E. coli limits (i.e. monthly geometric mean of 126 cfu/100 ml, and a single sample maximum of 410 cfu/100 ml) in the previous permit will be continued in the draft permit. The E. coli monitoring frequency requirement in the previous permit also retains in the draft permit.

If the State amends a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL.

##### b. Dissolved Oxygen (DO)

The State of New Mexico WQS criterion applicable to the warm-water aquatic life designated use is at least 5 mg/L for dissolved oxygen. As a part of the permitting process, EPA used the LA-QUAL water quality model, which is a steady-state one-dimensional model which assumes complete mixing within each modeled element, to develop permit parameters for the protection of the State of New Mexico surface water WQS for DO (i.e., 5 mg/L). Primarily based on the Village of Maxwell Wastewater Treatment Plant's design flow and the critical flow of the receiving water, various BOD<sub>5</sub> factors including BOD<sub>5</sub> Secondary Treatment Standards were considered and simulated to achieve the DO criterion. A complete characterization of Canadian River (i.e., water quality and hydrodynamic data) was not available. Where data were not available, estimates and assumptions are made. The following is a summary of model inputs.

- The Village of Maxwell Wastewater Treatment Plant's design flow is 0.00105 m<sup>3</sup>/sec (0.02 MGD). The discharge location provided in the permit application is located at Latitude 36° 31' 55" N (36.5319), and Longitude 104° 32' 16" W (104.538). Other effluent parameters provided in the permittee's application include Ammonia (11.8 mg/L). The data of some effluent parameters were not provided. The effluent summer temperature of 26.11 °C (79 °F) and Fecal Coliform of 2 colonies /100 ml were obtained from the February 10, 2003 application. DO of 5 mg/L, Nitrate plus Nitrite Nitrogen of 5 mg/L, and Phosphorus of 2 mg/L were assumed.
- NMED provided the following information. The critical low flow of receiving stream is approximately 0.02578 m<sup>3</sup>/sec (0.49 MGD).
- EPA used the EPA's Environmental Justice Screening and Mapping Tool (Version 2019), and New Mexico's OpenEnviro Map to estimate the average elevation, average width of Canadian River segment length from the facility outfall. The average elevation is approximately 1806 meter (5925 feet). The average width of receiving stream is approximately 4.31 m (ft). And, the studied segment length of Canadian River is approximately 5900 meters (3.67 miles). The average depth of the studied segment is approximately 0.61m (1 foot). A complete characterization of the receiving water body was not available. EPA used default values to estimate the various unavailable hydrodynamic and water quality parameters. For instance, the ambient DO level of 5 mg/L was assumed since no ambient DO data was available for the studied segment.

The model results show no excursion of the receiving stream DO standard of 5 mg/L when the BOD<sub>5</sub> limits of 30 mg/l for monthly average and 45 mg/l for 7-day maxima were applied (see graph with 30/45 mg/L BOD<sub>5</sub> in Appendix 1; other detail information is available upon request)

The model results are based on the assumptions and default values as explained and presented above. Should these conditions change, the model should be updated to provide a more accurate assessment of the water quality within the receiving water body.

#### c. pH

The pH of 6.6 to 9.0 s.u., specified in 20.6.4.900 NMAC, is to protect the primary contact and warmwater aquatic life receiving stream designated uses. The pH limits (i.e., 6.6 to 9.0 su's for any single sample) and monitoring frequency requirement in the previous permit will be continued in the draft permit.

#### d. Nutrients

As mentioned in section 4a, Canadian River in Segment No. 20.6.4.305 is impaired due to nutrients and other pollutants. The TMDLs were developed for Assessment Units in the Canadian River and approved by EPA on September 18, 2019. However, no nutrient WLA was assigned to the Village of Maxwell in the TMDL because the facility has reported no discharge since 2006 and NMED assumed that the facility may not renew their NPDES permit in the future. EPA proposes to keep the TN limit of 0.076 lbs/day (for daily maximum) and TP limit of



0.005 lbs/day (for daily maximum) and monitoring frequency requirement in the previous permit in the draft permit.

If the State, at any time, amends a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL.

e. TOXICS

i. General Comments

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant.

EPA regulations at 40 CFR 122.21 establish permit application requirements for applicants seeking coverage under individual permits. In accordance with these regulations, EPA has developed eight individual permit application forms that correspond to different categories of dischargers subject to permitting. On February 12, 2019, EPA finalized revisions to the application requirements at 40 CFR 122.21 in the final NPDES Applications and Program Updates Rule. The final rule became effective on June 12, 2019. On and after this date, applicants for EPA-issued NPDES permits are required to meet the new application requirements.

All applicable facilities are required to fill out appropriate sections of the Form 2A and 2S to apply for an NPDES permit or reissuance of an NPDES permit. The new forms are applicable not only to POTWs, but also to facilities that are similar to POTWs, but which do not meet the regulatory definition of “publicly owned treatment works” (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to “make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities,” per the summary statement in the preamble to the Rule

The facility is designated as a minor and does not need to fill out the expanded pollutant testing section Part D of Form 2A. There are no toxics that need to be placed in the draft permit except for TRC described below.

ii. TRC

The facility uses Chlorine for various purposes such as disinfection of process equipment and/or algae control. The TRC effluent limitation of 11 ug/1 and monitoring frequency requirement in the previous permit will be continued in the draft permit. TRC reporting shall be the instantaneous maximum grab sample shall be taken during periods of chlorine use and cannot be averaged for reporting purposes. Regulations at 40 CFR §136 define "instantaneous grab" as analyzed within 15 minutes of collection.

### iii. Critical Conditions

Critical dilutions are used to establish certain permit limitations and conditions. The State of New Mexico WQS allows a mixing zone for establishing pollutant limits in discharges.

Both the NMWQS and NMIP establish a critical low flow designated as 4Q3, as the minimum average four consecutive day flow which occurs with a frequency of once in three years. The SWQB of the NMED provided EPA with the 4Q3 for the Village of Maxwell at 0.49 MGD.

For permitting purposes of certain parameters such as WET, the critical dilution (CD) of the effluent to the receiving stream is determined. The CD is 3.92% and calculated as follows:

$$CD = Q_e / [Q_e + Q_a]$$

Where:  $Q_a = 0.49$  MGD  
 $Q_e = 0.02$  MGD

$$CD = 0.02 / [0.02 + 0.49] \quad CD = 0.0392 \text{ or } 3.92\%$$

## D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). The policy is contained in the NMIP. Technology based pollutants; Frequency of 2 per month is established for BOD<sub>5</sub> and TSS. Flow is proposed to be monitored daily when discharging by totalizing meter. Sample type for BOD<sub>5</sub> and TSS is by grab sample which is the same as the previous permit.

Water quality-based pollutant; Monitoring frequency for E. coli bacteria shall be 2 per month by grab sample from the previous permit will be continued in the draft permit. The pollutant pH, and TRC shall be monitored one per week using grab samples, which is which is the same as the previous permit. Total Phosphorous and Total Nitrogen shall be monitored once per month. Sample type for both pollutants is by grab sample.

## E. WHOLE EFFLUENT TOXICITY LIMITATIONS

The State has established narrative criteria, which in part state that:

“...surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that

will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms....” (NM WQS Section 20.6.4.13.F.)

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. Table 11 (page 42) of the NMIP outlines the type of WET testing for different types of discharges. The previous permit required the facility to conduct the 48-Hour Acute biomonitoring testing once per permit term using *Pimephales promelas* and *Daphnia pulex* when discharge occurs. The facility has not been charging since 2006. No WET test was conducted. The WET impacts due to facility’s discharge cannot be determined since there is no WET DMR data. The WET test requirement in the previous permit will be continued in the draft permit. EPA requires the permittee continuing to conduct an Acute 48-hour biomonitoring test using *Daphnia pulex* and *Pimephales promelas* at a once per term frequency when discharging occurs.

The critical condition is 3.92 %. The low-flow effluent concentration (critical low-flow dilution) is defined as 98% effluent. The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 1.7%, 2.3%, 3%, 4%, and 5.3%.

During the period beginning the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 - the discharge to to unnamed dry arroyo, thence to Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin. Discharges shall be limited and monitored by the permittee as specified in Table 3:

**TABLE 3:**

<b>WHOLE EFFLUENT TOXICITY LIMIT</b> (48-Hr Acute NOEC Freshwater) (*1)	<b>VALUE</b>	<b>MEASUREMENT FREQUENCY</b>	<b>SAMPLE TYPE</b>
<i>Daphnia pulex</i>	REPORT	Once/Term	24-Hr Composite
<i>Pimephales promelas</i>	REPORT	Once/Term	24-Hr Composite

**FOOTNOTE:**

\*1 WET limit for *D. pulex* and monitoring and reporting requirements for *P.promelas* begin on the effective date of this permit. See PART II, Whole Effluent Toxicity testing requirements for additional WET monitoring and reporting conditions.

**VI. FACILITY OPERATIONAL PRACTICES**

**A. SEWAGE SLUDGE**

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge." EPA may at a later date issue a sludge-only permit. Until such future issuance of a sludge-only permit, sludge management and disposal at the facility will be subject to Part 503 sewage sludge requirements. Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a sludge-only permit has been issued. Part IV of the draft permit contains sewage sludge permit requirements.

## B. WASTEWATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

## C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The application form listed no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has tentatively determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been required. The facility is required to report to EPA, in terms of character and volume of pollutants any significant indirect dischargers into the POTW subject to pretreatment standards under §307(b) of the CWA and 40 CFR Part 403.

## D. OPERATION AND REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

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).

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

## VII. 303(d) LIST

Canadian River in Segment No. 20.6.4.305 of the Canadian River Basin is listed on the 2018-2020 Integrated List as impaired due to E. coli bacteria, Aluminum (Total recoverable), nutrients, and temperature. Section 303(d) of the Federal Clean Water Act requires states to develop a TMDL management plan for water bodies determined to be water quality limited.

NMED developed E. coli bacteria and nutrients TMDLs for Assessment Units in the Canadian River and Dry Cimarron Watershed, which was approved by EPA on September 18, 2019. The Maxwell WWTP (NM0029149) discharges to Canadian River (Cimarron River to Chicorica Creek), however, E. coli bacteria and nutrient WLA were not assigned to the Village of Maxwell in the TMDL since the facility has reported no discharge since 2006.

#### VIII. ANTIDegradation

The State of New Mexico has antidegradation requirements to protect existing uses through implementation of NMWQS. The limitations and monitoring requirements set forth in the proposed draft are developed from the appropriate State WQS and are protective of those designated uses. Furthermore, the policy's set forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The design flow rate of the facility has not changed since the last permit issued. The facility has not discharged since 2006. The proposed draft permit does not authorize a new or increased discharge. The draft permit is consistent with the NM WQMP. The Village of Maxwell Wastewater Treatment renewal application is for a permit to discharge into an impaired waterbody.

#### IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet anti-backsliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the mass loading requirements of the previous permit for BOD<sub>5</sub> and TSS. The pollutants pH and E. coli are identical with the previous permit.

#### X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at USFWS, Southwest Region 2 website, <https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=35039>, seven species in Colfax County are listed as endangered (E) or threatened (T). They are the Yellow-billed Cuckoo (T) (*Coccyzus americanus*), the Southwestern willow flycatcher (E) (*Empidonax traillii extimus*), the Mexican spotted owl (T) (*Strix occidentalis lucida*), Piping Plover (*Charadrius melodus*) (T), Black-footed ferret (*Mustela nigripes*) (E), New Mexico meadow jumping mouse (E) (*Zapus hudsonius luteus*), and Canada Lynx (T) (*Lynx Canadensis*).

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined that the reissuance of this permit will have “no effect” on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

Within New Mexico, significant Southwestern Willow Flycatcher populations occur along the Rio Grande and Gila River drainages, with much smaller populations at isolated locales in the San Juan, upper Canadian, Zuni, San Francisco, Mimbres, and Pecos River drainages (USFWS 2014, Durst 2017). Despite the documentation of increasing numbers of breeding territories in some areas, several ongoing threats have been identified as contributing to the continued endangered status of the Southwestern Willow Flycatcher (USFWS 2014, 2017). These threats which are often interrelated, include: habitat alteration, fragmentation, or loss; water manipulation activities (diversion, impoundment, pumping, and flood control); excessive livestock grazing; climate change; fire; localized brood parasitism by Brown-headed Cowbirds (*Molothrus ater*); and localized high nest predation rates. The continuing invasion of the tamarisk leaf beetle (*Diorhabda* spp.) into New Mexico may also further threaten the state's flycatcher populations, due to the beetle's ability to defoliate large stands of tamarisk during the flycatcher's breeding season. From 2007 to 2017, *Diorhabda* spp. were detected nearly statewide (Tamarisk Coalition), with the notable exception of the Gila River area (Tamarisk Coalition 2018). Efforts to eradicate tamarisk and other exotic plants that do not involve concurrent restoration of native vegetation also jeopardize this flycatcher. EPA has determined that reissuance of this permit will have no effect on the Southwestern willow flycatcher or its habitat.

The Mexican spotted owl is mottled in appearance with irregular white and brown spots on its abdomen, back and head. The Mexican spotted owl currently occupies a broad geographic area, but often occurs in isolated mountain systems and canyons. Riparian communities and previously occupied localities in the Southwest and southern Mexico have undergone significant habitat alteration since the historical sightings. The largest concentration of Mexican spotted owls in New Mexico occurs in the Mogollon and Sacramento Mountain ranges. The Mexican spotted owl has been recorded in all the forested areas of New Mexico at elevations of 3,700 to 10,000 feet. Habitat consists of caves, cliff ledges, and stick nests of other species in mature and old growth forest associated with steep canyons. The preferred vegetation type is mixed conifer; however, they can be found in pinyon-juniper, pine-oak, and ponderosa pine. The Mexican spotted owl has been located in Santa Fe National Forest to the west and other forested lands. EPA has determined that reissuance of this permit will have no effect on the Mexican spotted owl or its habitat.

Although Piping Plovers nest in southeastern Colorado (Kingery 1998), the species has been only been reported in New Mexico on 9 occasions. No known breeding pairs were documented in Colorado from 1949 – 2002, but in 2003, 24 breeding pairs were located during surveys of southeastern Colorado reservoirs completed by the United States Army Corps of Engineers. Because the occurrence of Piping Plovers within the state is dependent upon status and conditions of breeding populations elsewhere, the number of Piping Plovers migrating through New Mexico should increase if Piping Plover numbers increase in Colorado (see USFWS 2016). The major threats to this species are loss and degradation of nesting and wintering habitats from urbanization, vehicular traffic, human disturbance, and water impoundments and regulation (USFWS 1985, Ryan et al. 1993). EPA has determined that reissuance of this permit will have no effect on the Piping Plovers or its habitat.

Research of the black-footed ferret finds that the species is extirpated in New Mexico and has diminished due to the eradication of prairie dogs, the primary source of the ferret's habitat and

food. Reissuance of this permit will have no effect on the prairie dog food source or habitat nor on the ferret food source or habitat.

The Yellow-billed cuckoo (*Coccyzus americanus*) is a Neotropical migrant bird that winters in South America and breeds in North America. The yellow-billed cuckoo has been listed as endangered. The primary cause of loss and degradation of yellow-billed cuckoo is the loss and degradation of riparian breeding habitat, which is believed to have caused the declines in the distribution and abundance of the species. Conversion to agriculture and other land uses, urbanization, dams and river flow management, stream channelization and bank stabilization, and livestock grazing are the causes of riparian habitat losses. The permit does not authorize activities that may cause destruction of the yellow-billed cuckoo habitat, and issuance of the permit will have no effect on this species.

Canada Lynx (*Lynx canadensis*): The lynx is a medium-sized cat with long legs, large, well-furred paws, long tufts on the ears, and a short, black-tipped tail. The distribution of lynx in North America is closely associated with the distribution of North American boreal forest. In Canada and Alaska, lynx inhabit the classic boreal forest ecosystem known as the taiga. The range of lynx populations extends south from the classic boreal forest zone into the subalpine forest of the western United States, and the boreal/hardwood forest ecotone in the eastern United States. Forests with boreal features extend south into the contiguous United States along the North Cascade and Rocky Mountain Ranges in the west, the western Great Lakes Region, and northern Maine. Within these general forest types, lynx is most likely to persist in areas that receive deep snow and have high-density populations of snowshoe hares, the principal prey of lynx. In all regions within the range of lynx in the contiguous U.S., timber harvest, recreation and their related activities are the predominant land use affecting lynx habitat. The permit does not authorize activities that may cause destruction of the lynx habitat, and issuance of the permit will have no effect on this species.

The proposed permit does not authorize constructions and land development, nor will cause release of toxic pesticides or spread of disease. Based on the information available to EPA, that the reissuance of this permit will have no effect on these federally listed threatened or endangered species.

#### XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

#### XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if State Water Quality Standards are promulgated or revised. In addition, if the State amends a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL. Modification of the permit is subject to the provisions of 40 CFR §124.5.

### XIII. VARIANCE REQUESTS

No variance requests have been received.

### XIV. CERTIFICATION

The permit is in the process of certification by the State agency following regulations promulgated at 40 CFR124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers and to the Regional Director of the U.S. Fish and Wildlife Service prior to the publication of that notice.

### XV. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

### XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

#### A. APPLICATION(S)

EPA Application Form 2A received April 13, 2020.

#### B. 40 CFR CITATIONS

Sections 122, 124, 125, 133, 136

#### C. STATE OF NEW MEXICO REFERENCES

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2018 -2020.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 2012.

EPA-Approved Total Maximum Daily Load (TMDL) for the Canadian River Watershed, September 18, 2019

#### D. MISCELLANEOUS

NPDES Compliance Evaluation Inspection for the Town of Maxwell Wastewater Treatment Plant, April 19, 2018.



### Appendix 1 (DO Modeling Results)

