NPDES PERMIT NO. NM0030490
FACT SHEET

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

APPLICANT

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DATE PREPARED

October 1, 2024

PERMIT ACTION

Proposed reissuance of the current NPDES permit issued June 17, 2019, with an effective date of August 1, 2019, and an expiration date of July 31, 2024.

RECEIVING WATER – BASIN

Rio Grande – Segment 20.6.4.101 NMAC of the Rio Grande 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 limitations 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
µg/L	Micrograms per liter
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
PCB	Polychlorinated Biphenyl
PFAS	Per- and Polyfluoroalkyl Substances
POTW	Public owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for 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

In this document, references to State WQS and/or rules shall collectively mean the State of New Mexico WQS.

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued June 17, 2019, with an effective date of August 1, 2019, and an expiration date of July 31, 2024, are:

- Per- and Polyfluoroalkyl Substances (PFAS), Adjusted Gross Alpha, Gross Alpha, Uranium, Total Nitrogen (TN), and Total Phosphorous (TP) monitoring requirements were added.
- Effluent limitations were established for Boron (Total) and Cyanide (Total).
- Effluent WET limitations were established for *Ceriodaphnia dubia* and *Pimephales promelas*.

II. APPLICATION LOCATION and ACTIVITY

As described in the application, the wastewater treatment plant is located at the intersection of East Sloan Road and Montes Road in La Mesa, Dona Ana County, New Mexico. The effluent from the treatment plant is discharged into Rio Grande in Segment 20.6.4.101 NMAC of the Rio Grande Basin. The discharge is located on that water at latitude 32° 05' 22" N and longitude 106° 39' 36" W. Under the SIC Code 4952, the discharge is from a publicly owned treatment works (POTW) with a design capacity of 1.05 MGD serving a total population of approximately 8200.

As described in the application, the treatment processes for the facility is as follows:

The facility is a Sequencing Batch Reactor type of treatment facility. The influent wastewater first flows through a preliminary treatment process that takes place at the facility entrance works which includes a grinder, fine screen, and a conveyor unit. The screened wastewater then flows into the grit chamber where settleable solids and inorganic material are removed. The pretreated wastewater then flows by gravity from the entrance works to a pre-react basin where influent will receive partial treatment before entering to the main reactor for secondary treatment.

The facility has two reactor basins which are designed to operate in an aeration, clarification and clear liquid decant sequence. During the aeration phase the reactor provided dissolved oxygen to the microorganisms. After a programmed time, interval, the aeration is sopped to allow for settling of the microorganisms from the treated wastewater. The solids settle to the bottom of the reactor and are either retained within the reactor or wasted to the sludge holding pond.

The sludge in the holding tanks is then pumped to the sludge belt press for dewatering and is then disposed in the South Central Solid Waste Authority/Corralitos Regional Landfill.

The clarified wastewater in the reactor is then decanted after settling and flows to the Ultraviolet disinfection unit for the pathogen control. The effluent flow is measured through a parshall flume/ultrasonic flow meter and discharged to the Rio Grande River. The facility has made several improvements including installation of new headworks, automatic barscreen cleaner, grit remover system, new influent lift station, new upgrade UV disinfection system and effluent aeration cascade system.

III. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC effective September 24, 2022). The facility discharges into the Rio Grande in Waterbody Segment No. 20.6.4.101 NMAC of

the Rio Grande River Basin, which has designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

IV. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A and addendum received on February 22, 2024, March 20, 2024, and June 25, 2024 are presented below in Tables 1 and 2:

Table 1

Parameter	**Max**	**Avg**
Flow, million gallons/day (MGD)	0.542	0.382
Temperature, winter	25°C	17.8°C
Temperature, summer	31°C	26.7 °C
pH, minimum, standard units	6.86 s.u.	N/A
pH, maximum, standard units	7.88 s.u.	N/A
Biochemical Oxygen Demand, (BOD)	55.71 mg/L	6.95 mg/L
Fecal Coliform (bacteria/100 ml)	2300	337.98
Total Suspended Solids (TSS)	54.5 mg/L	5.93 mg/L
Ammonia (as N)	2.1 mg/L	1.16 mg/L
Calcium	97 mg/L	92.61 mg/L
Magnesium	17 mg/L	13.84 mg/L
Total Kjeldahl Nitrogen (TKN)	5 mg/L	2.75 mg/L
Nitrate plus Nitrite Nitrogen	21.05 mg/L	17.74 mg/L
Dissolved Oxygen (DO)	5.01mg/L	3.72 mg/L
Phosphorus (Total)	4.8 mg/L	4.73 mg/L
Total Dissolved Solids (TDS)	965 mg/L	945.5 mg/L

The facility must sample and report all the priority pollutants identified in Part D, Expanded Effluent Testing Data of Form 2A. From that list, the pollutants in Table 2 were either tested above MQLs or were tested at levels above EPA MQL and reported as being non detect. When a pollutant was tested at a detection level that was greater than the EPA MQL then for screening purposes that pollutant was assumed to have a concentration at that detection level. For toxics that were tested at the minimum quantification level (MQL) and reported as less than the MQL, those pollutants are not shown.

Table 2

Parameter	**Max**	**Avg**
Hardness (as $CaCO_3$)	300 mg/l	286.4 mg/l
Copper	0.0034 mg/L	0.0031 mg/L
Zinc	0.037 mg/L	0.0261 mg/L
Arsenic	0.0038mg/l	0.0036 mg/l
Mercury	5.7 ng/L	4.45 ng/L
Aluminum, Total	0.065 mg/L	0.057 mg/L
Aluminum, Dissolved	0.011 mg/L	0.007 mg/L
Barium, Dissolved	0.039 mg/L	0.038 mg/L
Boron, Dissolved	0.44 mg/L	0.43 mg/L
Manganese, Dissolved	0.0023 mg/L	0.002 mg/L
Molybdenum, Dissolved	0.0045 mg/L	0.0033 mg/L
Uranium	2.2 ug/L	1.99 ug/L

Parameter	Max	Avg
Uranium, Dissolved	0.0017 mg/L	0.0017 mg/L
Cyanide, Total	8.2 ug/L	6.291 ug/L
Phenols, Total	0.011 mg/L	0.0022 mg/L
Gross Alpha	5.13 pCi/L	4.427 pCi/L
Gross Beta,	27.2 pCi/L	23.46 pCi/L
Radium 226 + 228	1.108 pCi/L	1.021 pCi/L
Dacthal	0.502 ug/L	0.481 ug/L
Dalapon	1.11 ug/L	1.086 ug/L
1,4-Dichlorobenzene	0.1 ug/L	0.063 ug/L
Strontium-90	0.39 pCi/L	0.329 pCi/L
Methyl Mercury	0.17 ng/L	0.121 ng/L

A summary of the last 36 months of available pollutant data from January 2021 through January 2024, taken from DMRs indicates the facility experienced exceedances of permit limit (shown in parenthesis) for DO (36), BOD_5 (1), and E. coli (2).

V. 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 existing NPDES permit issued June 17, 2019, with an effective date of August 1, 2019, and an expiration date of July 31, 2024, is administratively continued until this permit is reissued.

VI. 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 ELGs, 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 and BOD_5, and percent removal for both. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, 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 facility is a POTW. POTWs have technology based ELGs established at 40 CFR 133, Secondary Treatment Regulation. Pollutants with ELGs established in this Chapter are BOD, TSS and pH. BOD_5 limits of 30 mg/L for the 30-day average, 45 mg/L for the 7-day average, and 85% percent (minimum) removal are found at 40 CFR §133.102 (a). TSS limits of 30 mg/L for the 30-day average, 45 mg/L for the 7-day average, and 85% percent (minimum) removal are found at 40 CFR §133.102 (b). ELGs for pH are between 6-9 standard units (s.u.) and are found at 40 CFR §133.102 (c). 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 POTWs or WWTPs, the plant's design flow is used to establish the mass load. Mass limits in Table 3 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 TSS loading = 30 mg/l * 8.345 lbs/gal * 1.05 MGD
30-day average TSS loading = 263 lbs

7-day average TSS loading = 45 mg/l * 8.345 lbs/gal * 1.05 MGD
7-day average TSS loading = 394 lbs

30-day average BOD_5 loading = 30 mg/l * 8.345 lbs/gal * 1.05 MGD
30-day average BOD_5 loading = 263 lbs

7-day average BOD_5 loading = 45 mg/l * 8.345 lbs/gal * 1.05 MGD
7-day average BOD_5 loading = 394 lbs

Technology-Based Effluent Limits – 1.05 MGD design flow.

Table 3

EFFLUENT CHARACTERISTICS	**30-Day Avg.**	**7-Day Avg.**	**30-Day Avg.**	**7-Day Avg.**
Flow	N/A	N/A	Measure MGD	Measure MGD
BOD_5	263 lbs/Day	394 lbs/Day	30 mg/L	45 mg/L
BOD_5, % removal, minimum [*1]	≥ 85%	---	---	---
TSS	263 lbs/Day	394 lbs/Day	30 mg/L	45 mg/L
TSS, % removal, minimum [*1]	≥ 85%	---	---	---
pH	N/A	N/A	6-9 standard units [*2]	

Footnotes:

[*1] % removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] * 100.

[*2] The pH based on stream segment specific WQS are more stringent than pH technology-based limits of 6.0-9.0 standard units. See C.4.a below.

The facility will be required to monitor the influent of BOD_5 and TSS on a once per week frequency for use to determine the removal percentage. The facility shall diligently maintain a log. The influent data is not required to be reported in NetDMR but must be kept at the facility and made available to EPA or its agents upon request.

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, state or tribal WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with the State/Tribal 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 facility's discharge into Rio Grande starts from New Mexico state land and travels approximately 28 stream miles to the Texas-New Mexico border. Based on the permit writer's judgement, the discharge from the facility will not have an impact on State of Texas waters except during significant precipitation events, during which the flow in the receiving water would be greater than the critical low flow and result in more instream dilution of the discharge, thus reducing any impact attributable to the authorized discharge. The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, effective September 24, 2022). The facility discharges into the Rio Grande in Waterbody Segment No. 20.6.4.101

NMAC of the Rio Grande River Basin, which has designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

4. Permit Action – Water Quality-Based Limits

Regulations promulgated at 40 CFR 122.44(d) require limits in addition to, or more stringent than ELGs (technology based). State WQS that are more stringent than ELGs are as follows:

a. pH

The State of New Mexico WQS criteria applicable to the warmwater aquatic life designated use require pH to be between 6.6 and 9.0 s.u. This is more restrictive than the mentioned technology-based limits. The pH limits of 6.6 to 9.0 s.u. in the previous permit will be continued in the draft permit.

b. Bacteria

The NMWQS for E. coli designed to protect the primary contact use requires a 30-day average (geometric mean) limit of 126 cfu/100 mL or less and a single sample limit of 410 cfu/100 ml or less. These limits and the monthly average mass loading of 5.01 billion (1.0×10^9), which are required in the EPA approved total maximum daily load (TMDL) for E. coli were in the previous permit. They will be continued in the draft permit.

c. 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. The State establishes 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 NMED provided the 4Q3 of 0 cfs for the Rio Grande waterbody (Segment No. 20.6.4.101 NMAC of the Rio Grande River Basin). No modeling to evaluate the biochemical oxygen demand of the discharge was conducted. Since 4Q3 is zero, the discharge must meet end-of-pipe criteria.

d. Total Phosphorus and Total Nitrogen

The facility is designated as a major POTW with a design flow rate of 1.05 MGD. To protect and maintain existing and downstream water quality and to prevent further degradation of water quality in the Rio Grande, EPA proposes Total Nitrogen (TN), Total Phosphorous (TP) to be monitored once per month in the draft permit.

e. Adjusted Gross Alpha Value

The Rio Grande in water quality standards segment 20.6.4.101 NMAC has the following designated uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact. To protect livestock watering designated use, the New Mexico water quality criterion for "adjusted gross alpha" is 15 pCi/L (see 20.6.4.900.J). The EPA proposed that "adjusted gross alpha" to be monitored once every 6 months by grab sampling to determine if effluent limits will be required in future permits.

The "adjusted gross value" is determined by the following mathematical relationship:

[Adjusted Gross Alpha] (pCi/L) = [Gross Alpha] (pCi/L) – {[Uranium] ug/L) * 0.67}

A conversion factor of 0.67 (pCi/L) µg is used to convert uranium concentrations (in µg/L) to uranium activity (in pCi/L) prior to subtraction.

To determine the adjusted gross alpha value and evaluate directly against the water quality criterion, EPA proposes natural uranium and gross alpha to be monitored once every 6 months.

f. 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 water quality criteria, the permit must contain an effluent limit for that pollutant.

All applicable facilities are required to fill out appropriate sections of the Form 2A to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs, but also to facilities that are like 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. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL.

The facility is designated as a major and submitted to EPA the NPDES Form 2A application and addendum on February 22, 2024, March 20, 2024, and June 25, 2024. There are several pollutants were tested above MQLs. They are listed in Table 2 in Part IV of this fact sheet. All these pollutants will be evaluated for RP to cause or contribute to WQS exceedances. If RP exists, the screen will calculate the appropriate permit limit needed to be protective of such designated uses. The EPA conducted the RP screening analysis which is based on the NMIP as of March 15, 2012.

The result of the preliminary RP analysis (see Appendix 1) indicates that Boron (Total) and Cyanide (Total) have RP to violate New Mexico WQS consistent with the designated uses for the receiving waterbody. The proposed permit limits for these pollutants are listed in Table 4 below. The facility shall have a 3-year compliance schedule to achieve final limitations for these pollutants. The draft permit will require compliance schedule reports.

Table 4: Effluent limits

Parameters	**Daily Max.**	**Monthly Avg.**	**Daily Max Loading**	**Monthly Avg. Loading**
Boron, Total	750 ug/L	750 ug/L	6.567 lbs/day	6.567 lbs/day
Cyanide, Total	5.2 ug/L	5.2 ug/L	0.046 lbs/day	0.046 lbs/day

(ii) TRC

The facility uses UV disinfection, so chlorine is not normally added to the effluent. The facility does not have a chlorination treatment system as a backup. However, chlorine may be used for maintenance, or other purposes in the future. These usages may cause chlorine to be in the facility discharge. If chlorine may be used, there, however, will be a permit requirement that will limit its discharge during those times.

This will be through a specific chemical limitation. The implementation to protect NMWQS from chlorine toxicity is to limit chlorine as "no measurable amount". Specifically, after de-chlorination and prior to final disposal, the effluent shall contain "NO MEASUREABLE" total residual chlorine at any time. "NO MEASUREABLE" will be defined as no detectable concentration of TRC as determined the minimum quantification level of TRC becomes less than 11 ug/L. The previous permit TRC limit of 11 µg/L when chlorine is used will be continued in the draft permit. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

(iii) Per- and Polyfluoroalkyl Substances (PFAS)

The EPA currently has no data indicating that PFAS is present in the South Central Regional WWTP discharge. There are no known industrial users of the system expected to contribute PFAS into the collection system. The standard reopener language in the permit allows additional permit conditions if warranted by future changes in the listing of receiving waterbody segment (i.e., PFAS) and/or new TMDLs. As explained at https://www.epa.gov/pfas, PFAS are a group of synthetic chemicals that have been in use since the 1940s. PFAS are found in a wide array of consumer and industrial products. PFAS manufacturing and processing facilities, facilities using PFAS in production of other products, airports, and military installations can be contributors of PFAS releases into the air, soil, and water. Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. Exposure to some PFAS above certain levels may increase risk of adverse health effects (EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan, EPA 823R18004, February 2019). The EPA is collecting information to evaluate the potential impacts that discharges of PFAS from wastewater treatment plants may have on downstream drinking water, recreational and aquatic life uses.

Although the New Mexico Water Quality Standards do not include numeric criteria for PFAS, the 2022 New Mexico Water Quality Standards narrative criterion supply guidance including:

20.6.4.7(E)(2) NMAC states: "**Emerging contaminants"** refer to water contaminants that may cause significant ecological or human health effects at low concentrations. Emerging contaminants are generally chemical compounds recognized as having deleterious effects at environmental concentrations whose negative impacts have not been fully quantified and may not have regulatory numeric criteria.

20.6.4.7(T)(2) NMAC states: **"Toxic pollutant"** means those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

Since PFAS chemicals are persistent in the environment and may lead to adverse human health and environmental effects, the draft permit requires that the facilities conduct influent, effluent, and sludge sampling for PFAS according to the frequency outlined in the permit.

The purpose of this monitoring and reporting requirement is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits on a facility-specific basis. EPA is authorized to require this monitoring and reporting by CWA § 308(a), which states:

"SEC. 308. (a) Whenever required to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this Act; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established

under this section; or (4) carrying out sections 305, 311, 402, 404 (relating to State permit programs), 405, and 504 of this Act—

> *(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require;".*

The EPA notes that there is currently not an analytical method approved in 40 CFR Part 136 for PFAS. As stated in 40 CFR § 122.44(i)(1)(iv)(B), in the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR Part 136 or methods are not otherwise required under 40 CFR chapter I, subchapter N or O, monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters. Therefore, the draft permit specifies that until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633. The Adsorbable Organic Fluorine CWA wastewater method 1621 can be used in conjunction with Method 1633, if appropriate. This is consistent with the December 5, 2022, USEPA Memorandum, *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, from Radhika Fox (available at https://www.epa.gov/newsreleases/epa-issues-guidance-states-reduce-harmful-pfas-pollution.)

In October 2021, EPA published a PFAS Strategic Roadmap (https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024) that described EPA's commitments to action for 2021 through 2024. This roadmap includes a commitment to issue new guidance recommending PFAS monitoring in both state-issued and federally-issued NPDES permits using EPA's recently published analytical Method 1633. Consistent with the December 5, 2022, USEPA Memorandum, *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, EPA has included PFAS monitoring in the draft permit using analytical Method 1633 (see https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas for more information). Table 5 lists Region 6 recommended PFAS monitoring frequencies for different facility type.

Table 5: Region 6 Recommended Monitoring Frequencies

Minor (< 0.1 MGD)	Once/Term
Minor (0.1 < 1.0 MGD) [2,3]	3/Term
Major (if NOT in an applicable category) [2]	Once/6 Months
Major (if IS in an applicable category) [2]	Quarterly
Major (with required pretreatment OR discharge is > 5 MGD)	Quarterly

Footnotes:

1. These recommended frequencies are only for facilities where an applicable ELG for PFAS does not apply. These frequencies may be altered if an industry category is known or suspected to discharge PFAS or based on the permit writer's BPJ.
2. The December 5, 2022, USEPA memo from Radhika Fox recommends PFAS monitoring for all POTWs, including POTWs that do not receive industrial discharges, and industrial users in these industrial categories: organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper & paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. The memo is available at https://www.epa.gov/newsreleases/epa-issues-guidance-states-reduce-harmful-pfas-pollution.
3. PFAS samples must be collected and analyzed in three separate calendar years

5. 303(d) List Impairment

Assessment of data collected from 2010-12 identified exceedances of the New Mexico water quality standard for dissolved boron in the AU NM-2101_00 Rio Grande (International Mexico bnd to TX border), formerly a part of Rio Grande (International Mexico bnd to Anthony Bridge). The impairment was confirmed by monitoring results of the 2019-20 Lower Rio Grande water quality survey. This waterbody is listed on the Integrated CWA §303(d)/§305(b) list as impaired for boron (NMED/SWQB, 2022). NMED developed a TMDL for Boron which was approved by EPA on August 20, 2024. The EPA approved TMDL does not identify this facility for a wasteload allocation (WLA) regarding Boron since its discharges go into AU NM-2101_01 (TX border to NM-192 bridge W. of Mesquite).

NMED, also, developed a TMDL (approved by EPA on June 11, 2007) for the Main Stem of the Lower Rio Grande (From the International Boundary with Mexico to Elephant Butte Dam) for E. coli bacteria. The assigned WLA for the facility was in the previous permit and will be continued the draft permit. The standard reopener language in the permit allows additional permit conditions if warranted by future changes and/or new TMDLs.

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)). Sample frequency is based on the March 2012, NMIP with design flows between 1 MGD and 5 MGD. Sample frequency and type for limited parameters are shown in Table 6.

Table 6: Monitoring Frequency for Limited and Monitor Only Parameters

Parameter	**Frequency**	**Sample Type**
Flow	Continuous	Totalized Meter
pH	5/Week	Grab
BOD_5, TSS	Once/Week	6-Hr Composite
Total Dissolved Oxygen	Once/Week	Grab
% Removal	Once/Week	Calculation
TRC (if necessary)	Daily	Instantaneous Grab
E. coli Bacteria	1/Week	Grab
Boron (Total), Cyanide (Total)	2/Week	Grab
Total Nitrogen, Total Phosphorous	1/Month	6-hour Composite
Adjusted Gross Alpha, Uranium, Gross Alpha	1/6 Months	Grab
PFAS Analytes	3/Permit Term	Grab

E. WHOLE EFFLUENT TOXICITY (WET) REQUIREMENTS

The State of New Mexico 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.)

Critical conditions 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. The state establishes 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.

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

$$CD = Q_e / (F \cdot Q_a + Q_e)$$

where:

Q_e = facility design flow (1.05 MGD)
Q_a = critical low flow of the receiving waters (0 MGD)
F = fraction of stream allowed for mixing (1.0)

$$CD = (1.05\ MGD/[(1.0)(0\ MGD) + 1.05\ MGD])*100 = 100\%$$

The critical dilution shall be 100%.

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 chronic 7-day biomonitoring testings using *Ceriodaphnia dubia* and *Pimephales promelas*. The EPA conducted an analysis of the facility past WET data to determine reasonable potential. The results show reasonable potential exists for *Ceriodaphnia dubia* and *Pimephales promelas* (see Appendix 2). Both species will now have a WET limit. Due to current classification of receiving stream (perennial), effluent dominated receiving stream (4Q3 = 0 cfs and 100% CD), aquatic life protection and existing reasonable potential, the previous permit requirements of conducting the 7-day chronic tests for *Ceriodaphnia dubia* and *Pimephales promelas* at a once per quarter will be remained in the draft permit, with a limit to both species.

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. 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 treated sanitary wastewater from Outfall 001 to Rio Grande. Discharges shall be limited and monitored by the permittee as specified in Table 7 below:

Table 7: Whole Effluent Toxicity Testing

WHOLE EFFLUENT TOXICITY (7-day Chronic Static Renewal/NOEC)[1/]	**VALUE**	**MORNITORING FREQUENCY**	**DMR REPORTING FREQUENCY**	**SAMPLE TYPE**
Pimephales promelas	100 %	Once/Quarter	Monthly	24-Hr Composite
Ceriodaphnia dubia	100 %	Once/Quarter	Monthly	24-Hr Composite

Footnotes:

1/ Compliance with the Whole Effluent Toxicity limitations is required on the effective date of this permit. See Part II of the permit for WET testing requirements and limitation conditions. Grab samples are allowed per method, if needed.

F. EFFLUENT TESTING FOR APPLICATION RENEWAL

In addition to the parameters identified in this fact sheet, EPA designated major POTW's are required to sample and report other parameters listed in tables of the EPA Form 2A and WET testing for its permit renewal. The minimum pollutant testing for NPDES permit renewals specified in Form 2A requires three samples for each of the parameters being tested. Current practice is to obtain the three samples over a short time frame, sometimes within two weeks during the permit renewal purposes, the draft permit shall require that the testing for Tables A.12, B.6, and Part D of EPA Form 2A, or its equivalent if modified in the future, during the second, third and fourth years after the permit effective date. This testing shall coincide with any required WET testing event for that year. The permittee shall report the results as a separate attachment in tabular form sent to the NPDES Permitting and Wetlands Section Supervisor of the Water Division within 60 days of receipt of the lab analysis and shall also be reported on the NPDES permit renewal application Form 2A or its equivalent/replacement.

VII. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE PRACTICES

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 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 treatment plant has 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 Section307(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 monthly. Reporting requirements and the requirement of using EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters are contained in 40 CFR 122.41(l) and 40 CFR 122.21 (e), respectively. As required by 40 CFR 127.16, all Discharge Monitoring Reports (DMRs) shall be electronically reported. The monitoring results will be available to the public.

VIII. ANTIDEGRADATION

The State of New Mexico (Section 20.6.4.8 of the NMAC) has antidegradation requirements to protect existing uses through implementation of their WQS. The limitations and monitoring requirements set forth in the proposed draft are developed from the appropriate the State of New Mexico 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 permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water. This permit reissuance is for an existing discharger that is not expanding, so anti-degradation requirements do not apply.

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 CBOD5 and TSS mass loading requirements and the pH concentration limit of the previous permit. The TRC concentration limit has been revised to make it consistent with the requirement of receiving stream classification. E. coli loading and DO limits have been added and the WET testing requirement have been revised to make more stringent in the draft permit to protect designated uses.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, https://ecos.fws.gov/ecp/report/species-listings-by-current-range-county?fips=35013, five species in Dona Ana County, New Mexico are listed as endangered (E) or threatened (T). Five species include the Chihuahua chub (*Gila nigrescens*) (T), Mexican wolf (*Canis lupus baileyi*) (E), Southwestern willow flycatcher (*Empidonax traillii extimus*) (E), Sneed pincushion cactus (*Coryphantha sneedii var. sneedii*) (E), and Yellow-billed Cuckoo (*Coccyzus americanus*) (T).

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 the listed threatened and endangered species nor will adversely modify designated critical habitat. The EPA makes this determination based on the following:

In the previous permit issued June 17, 2019, EPA made a "no effect" determination for federally listed species mentioned above except for Chihuahua chub (*Gila nigrescens*) and Mexican wolf (*Canis lupus baileyi*). Also, there are no critical habitats downstream of the facility for all the species.

The EPA has received no additional information since then which would lead to a revision of that "no effect" determination. The EPA determines that this reissuance will not change the environmental baseline established by the previous permit, and therefore, EPA concludes that reissuance of this permit will have "no effect" on the listed species and designated critical habitat.

The Chihuahua chub (*Gila nigrescens*) is endemic to the Guzman Basin, where it occurs from the Mimbres River in New Mexico, southward to northwestern Chihuahua, Mexico. They average 5-6 inches in length at maturity and may reach 12 inches. The Chihuahua chub is dependent upon habitat comprised of deep pools with undercut banks or over-hanging vegetation. Chubs are rather trout-like in much of

their feeding taking terrestrial insects on the surface as well as aquatic invertebrates and perhaps some fish and vegetation. The decline of the Chihuahua chub in the Mimbres River appears to be primarily related to loss of habitat. This loss has been due to severe flooding caused by degradation of the watershed and loss of riparian vegetation, and to action taken by local landowner to protect their property from future flooding. The Mimbres River has been channelized and leveed by local landowners in effort to confine flood waters. As a result, chub habitat has been destroyed. The EPA determines that this permitting action will have no effect on the specie. The permit does not authorize activities that may cause destruction or modification the Chihuahua chub habitat, and issuance of the permit will have no effect on this species.

The Mexican wolf (*Canis lupus baileyi*) is a top predator native to the southwestern United States and Mexico that lives in packs and requires large amounts of forested terrain with adequate ungulate (deer and elk) populations to support the pack. Today, Mexican wolves again inhabit portions of the southwestern United States in Arizona and New Mexico, and the northern Sierra Madre Occidental of Chihuahua in Mexico. Mexican wolves are present in these areas due to ongoing reintroduction efforts in both countries, supported by the binational captive breeding program. The threats to the Mexican wolf have generally remained consistent over time, including human- caused mortality and related legal protections, extinction risk due to small population size, and genetic issues. The permit does not authorize activities that may cause destruction of the Mexican wolf habitat, and issuance of the permit will have no effect on this species.

The EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations. The draft permit is consistent with the States WQS and does not permit facility to increase pollutant loadings to the receiving streams. In addition, it does not authorize constructions and land development, nor will cause release of toxic pesticides or spread of disease. There is currently no information determining that the reissuance of this permit will have "effect" on the additional listed threatened and endangered species. 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. ENVIRONMENTAL JUSTICE

Executive Order 13985, Advancing Racial Equity and Supporting for Underserved Communities through the Federal Government signed on January 20, 2021, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities." The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. "Overburdened" communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. As part of an agency-wide effort, the EPA Region 6 will consider prioritizing enhanced public involvement opportunities for EPA-issued permits that may involve activities with significant public health or environmental impacts on already overburdened communities. For more information, please visit http://www.epa.gov/ejscreen.

For fiscal year 2024, the NPDES Section is trying a new approach, conducting community meetings with overburdened communities in New Mexico and embedding Environmental Justice (EJ) early in the

Permitting process. The focus is on enabling overburdened communities to have full and meaningful access to the permitting process. This effort will emphasize on communities that have an 80% percentile or higher for the Wastewater Discharge EJ Index. This will help Region 6 NPDES permit writers and managers decide early in the permitting process when and how to conduct an EJ analysis for an EPA-issued permit and what, if any, permit terms or other actions may be appropriate to address EJ concerns.

As part of the Permit development process, the EPA conducted a screening analysis to determine whether this Permit action could affect overburdened communities. The EPA used EJScreen 2.2, a nationally consistent geospatial tool that contains demographic and environmental data for the United States at the Census block group level. This tool is used to identify Permits for which enhanced outreach may be warranted.

The study area was chosen at the proposed discharge, 3-miles downstream path following the flow path of the effluent from the treatment plant discharging into the Rio Grande in Waterbody Segment No. 20.6.4.101 NMAC of the Rio Grande River Basin. A 3-mile buffer around the path was selected to study the area with a population of 4914 persons. No EJ Indexes score for the state percentile of the facility was above the 80th percentile (80%) and 21% of the population speak only English at home. These results indicate this area will not be a concern for Environmental Justice issues at this time since all the percentiles are well below 80.

The NPDES Section conducted a virtual early engagement meeting with the community of La Mesa on September 11, 2024. Pre-registered stakeholders for this virtual meeting included representatives from NMED and EPA. During the virtual meeting, Region 6 discussed the objectives, the community of concern, water quality of the receiving waters and how communities can keep involved during and after the permitting process.

XIII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of either State or Pueblo WQS are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the State Water Quality Standards are either revised or promulgated. Should either the State adopts a new WQS, and/or develop or amend a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved standard and/or water quality management plan, in accordance with 40 CFR 122.44(d). Modification of the permit is subject to the provisions of 40 CFR 124.5.

XIV. VARIANCE REQUESTS

No variance requests have been received.

XV. CERTIFICATION

The permit is in the process of certification by the State of New Mexico following regulations promulgated at 40 CFR §124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XVI. FINAL DETERMINATION

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

XVII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

Facility submitted to EPA Application Forms 2A and 2S on February 22, 2024 and supplemental information via email on March 20, 2024, and June 25, 2024.

B. 40 CFR CITATIONS

§§ 122, 124, 125, 127, 131, 133, 136

C. STATE WATER QUALITY REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, effective September 24, 2022.

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

Statewide Water Quality Management Plan, December 17, 2002.

State of New Mexico 303(d) / §305(b) List for Assessed Stream and River Reaches, 2024-2026.

US EPA-APPROVED Total Maximum Daily Load (TMDL) for the Lower Rio Grande, June 11, 2007.

US EPA-APPROVED Total Maximum Daily Load (TMDL) for the Gila/Mimbres/San Francisco and Lower Rio Grande Basins, August 20, 2024.

D. OTHER

Appendix 1

		CALCULATIONS OF NEW MEXICO WATER QUALITY-BASED EFFLUENT LIMITATIONS		
NMAC 20.6.4.	**NMWQS as of 2023 (EPA Approved January 19, 2023)**			
Calculations Specifications:		Excel	**Revised (in red text) as of February 2023**	
Prepared By:	Quang Nguyen	16-Aug-24	9:36 AM	
STEP 1:	REFERENCE IMPLEMENTATION PROCEDURES	**APPENDIX**	**1**	
	INPUT FACILITY AND RECEIVING STREAM DATA	**of FACT SHEET**		
	LIST SOURCE OF DATA INPUT			
IMPLEMENTATION PROCEDURES				
The State of New Mexico Standards for Interstate and Intrastate Surface Waters are implemented in this spread sheet				
by using procedures established in the current "Procedures for Implementing NPDES Permits in New Mexico"				
FACILTY			DATA INPUT	
Permittee			Dona Ana	
NPDES Permit No.			NM0030490	
Outfall No.(s)			1	
Plant Effluent Flow (MGD)			1.05	For industrial and federal facility, use the highest monthly average flow
Plant Effluent Flow (cfs)			1.6275	for the past 24 months. For POTWs, use the design flow.
RECEIVING STREAM			DATA INPUT	
Receiving Stream Name			Rio Grande	
Basin Name			Rio Grande Basin	
Waterbody Segment Code No.			20.6.4.101	
Is a publicly owned lake or reservoir (enter "1" if it's a lake, "0" if not)			0	
Are acute aquatic life criteria considered (1= yes, 0= no)			1	
Are chronic aquatic life criteria considered (1= yes, 0=no)			1	
Are domestic water supply criteria considered (1= yes, 0=no)			0	
Are irrigation water supply criteria considered (1= yes, 0=no)			1	
Livestock watering and wildlife habitat criteria applied to all streams				
USGS Flow Station			USGS	
WQ Monitoring Station No.			SJR	
Receiving Stream TSS (mg/l)			229.12	For intermittent stream, enter effluent TSS
Receiving Stream Hardness (mg/l as CaCOs)		RANGE: 0 - 400	20	For intermittent stream, enter effluent Hardness (If no data, 20 mg/l is used)
Receiving Stream Critical Low Flow (4Q3) (cfs)			0	Enter "0" for intermittent stream and lake.
Receiving Stream Harmonic Mean Flow (cfs)			0.41	Enter harmonic mean or modified harmonic mean flow data or 0.001 if no data is available
Avg. Receiving Water Temperature (C)			18.1	
pH (Avg), Receiving Stream			8.47	
Fraction of stream allowed for mixing (F)			1	Enter 1, if stream morphology data is not available or for intermittent streams.
Fraction of Critical Low Flow			0	

STEP 2: INPUT AMBIENT AND EFFLUENT DATA

CALCULATE IN-STREAM WASTE CONCENTRATIONS

DATA INPUT — Input pollutant geometric mean concentration as micro-gram per liter (ug/l or ppb)

unless other unit is specified for the parameter.

Effluent value reported as "< detection level" (DL) but the DL is greater than MQL, input "1/2 DL" for calculation.

Effluent value reported as "< detection level" (DL) and the DL is smaller than MQL, no data is inputted.

If a less than MQL vakue is reported, input either the reported value or "0" for calculation.

The following formular is used to calculate the Instream Waste Concentration (Cd)

See the current "Procedures for Implementing NPDES Permits in New Mexico"

Cd = [(F*Qa*Ca) + (Qe*2.13*Ce)] / (F*Qa + Qe)

Where:

Cd = Instream Waste Concentration

F = Fraction of stream allowed for mixing (see "Procedures for Implementing NPDES Permits in New Mexico")

Ce = Reported concentration in effluent

Ca = Ambient stream concentration upstream of discharge

Qe = Plant effluent flow

Qa = Critical low flow of stream at discharge point expressed as the 4Q3 or harmonic mean flow for human health criteria

The following formular convert metals reported in total form to dissolved form if criteria are in dissolved form

See the current "Procedures for Implementing NPDES Permits in New Mexico"

Kp = Kpo * (TSS**a) — Kp = Linear partition coefficient; Kpo and a can be found in table below

C/Ct = 1/ (1 + Kp*TSS* 10^-6) — TSS = Total suspended solids concentration found in receiving stream (or in effluent for intermittent stream)

Total Metal Criteria (Ct) = Cr / (C/Ct) — C/Ct = Fraction of metal dissolved; and Cr = Dissolved criteria value

		Stream Linear Partition Coefficient					Lake Linear Partition Coefficient				
Total Metals	Total Value	Kpo	alpha (a)	Kp	C/Ct	Dissolved Value in Stream	Kpo	alpha (a)	Kp	C/Ct	Dissolved Value in Lake
Arsenic	3.6	480000	-0.73	9086.471043	0.324475978	1.16811352	480000	-0.73	9086.471043	0.324475978	1.1681135
Chromium III		3360000	-0.93	21452.63713	0.169055185	0	2170000	-0.27	500314.0784	0.008648128	0
Copper	3.1	1040000	-0.74	18646.04461	0.189674797	0.58799187	2850000	-0.9	21418.45595	0.169279306	0.5247658
Lead		2800000	-0.8	36233.27839	0.107506435	#VALUE!	2040000	-0.53	114497.7038	0.036719193	#VALUE!
Nickel		490000	-0.57	22128.9175	0.164739826	0	2210000	-0.76	35542.20711	0.109368142	0
Silver		2390000	-1.03	8862.025805	0.329982106	0	2390000	-1.03	8862.025805	0.329982106	0
Zinc	26.1	1250000	-0.7	27852.61093	0.135472164	3.53582348	3340000	-0.68	82966.6637	0.049976706	1.304392

The following formular is used to calculate hardness dependent criteria

(Please refer to State Water Quality Standards for details)

			Dissolved WQC (ug/l)	
Aluminum (T)	Acute	e(1.3695[ln(hardness)]+1.8308)	377.4565069	If Stream pH < 6.5, enter 750 in cell O114
	Chronic	e(1.3695[ln(hardness)]+0.9161)	151.2229667	If Stream pH < 6.5, enter 87 in cell P114
Cadmium (D)	Acute	e(0.8968[ln(hardness)]-3.5699)*CF1	0.418091688	CF1 = 1.136672 - 0.041838*ln(hardness)
	Chronic	e(0.7647[ln(hardness)]-4.2180)*CF2	0.142116028	CF2 = 1.101672 - 0.041838*ln(hardness)

									Dissolved						
									WQC (ug/l)						
Chromium III (D)		Acute			0.316 e(0.819[ln(hardness)]+3.7256)				152.4888787						
		Chronic			0.860 e(0.819[ln(hardness)]+0.6848)				19.8356702						
Copper (D)		Acute			0.960 e(0.9422[ln(hardness)]-1.700)				2.949857764						
		Chronic			0.960 e(0.8545[ln(hardness)]-1.702)				2.263769249						
Lead (D)		Acute			e(1.273[ln(hardness)]-1.46)*CF3				10.79154489		CF3 = 1.46203 - 0.145712*ln(hardness)				
		Chronic			e(1.273[ln(hardness)]-4.705)*CF4				0.420531012		CF4 = 1.46203 - 0.145712*ln(hardness)				
Manganese (D)		Acute			e(0.3331[ln(hardness)]+6.4676)				1746.691001						
		Chronic			e(0.3331[ln(hardness)]+5.8743)				965.048559						
Nickel (D)		Acute			0.998 e(0.846[ln(hardness)]+2.255)				119.9874916						
		Chronic			0.997 e(0.846[ln(hardness)]+0.0584)				13.32690594						
Silver (D)		Acute			0.85 e(1.72[ln(hardness)]-6.59)				0.201924903						
Zinc (D)		Acute			0.978 e(0.9094[ln(hardness)]+0.9095)				37.02425804						
		Chronic			0.986 e(0.90947[ln(hardness)]+0.6235)				28.04834719						
					Instream Waste Concentration						Livestock&	Acute	Chronic	Human	Need
POLLUTANTS			Ambient	Effluent	Acute	Domestic	Chronic	Human	Domestic	Irrigation	Wildlife	Aquatic	Aquatic	Health	TMDL
			Conc.	Conc.	Aquatic	Supply	Aquatic	Health	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	
	CAS No.	MQL	Ca (ug/l)	Ce (ug/l)	2.13*Ce	Cd,dom (ug/l)	Cd (ug/l)	Cd,hh (ug/l)	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
Radioactivity, Nutrients, and Chlorine															
Aluminum, total	7429-90-5	2.5	836.7	57	121.41	121.41	121.41	265.345656	1E+100	1E+100	1E+100	377.4565069	151.22297	1E+100	Need TMDL
Aluminum, dissolved	7429-90-5		20	7	14.91	14.91	14.91	15.9342454	1E+100	5000	1E+100	1E+100	1E+100	1E+100	N/A
Barium, dissolved	7440-39-3	100	100	38	80.94	80.94	80.94	84.7753865	2000	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Boron, dissolved	7440-42-8	100	190	430	915.9	915.9	915.9	769.829325	1E+100	750	5000	1E+100	1E+100	1E+100	N/A
Cobalt, dissolved	7440-48-4	50			0	0	0	0	1E+100	50	1000	1E+100	1E+100	1E+100	N/A
Uranium, dissolved	7440-61-1	0.1	4	1.7	3.621	3.621	3.621	3.69726503	30	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Vanadium, dissolved	7440-62-2	50			0	0	0	0	1E+100	100	100	1E+100	1E+100	1E+100	N/A
Ra-226 and Ra-228 (pCi/l)				1.021	2.17473	2.17473	2.17473	1.73711562	5	1E+100	30	1E+100	1E+100	1E+100	N/A
Strontium (pCi/l)				0.329	0.70077	0.70077	0.70077	0.55975616	8	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Tritium (pCi/l)					0	0	0	0	20000	1E+100	20000	1E+100	1E+100	1E+100	N/A
Gross Alpha (pCi/l)				4.427	9.42951	9.42951	9.42951	7.53203805	15	1E+100	15	1E+100	1E+100	1E+100	N/A
Asbestos (fibers/l)					0	0	0	0	7000000	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Total Residual Chlorine	7782-50-5	33			0	0	0	0	1E+100	1E+100	11	19	11	1E+100	N/A
Ammonia as N, total (mg/l)				1.16	2.4708	#VALUE!	#VALUE!	#VALUE!	1E+100	1E+100	1E+100	Criterion	Criterion	1E+100	Need TMDL
Nitrate as N (mg/l)				17.42	37.1046	37.1046	37.1046	29.6381529	10	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Nitrite + Nitrate (mg/l)				17.74	37.7862	#VALUE!	#VALUE!	#VALUE!	1E+100	1E+100	132	1E+100	1E+100	1E+100	Need TMDL
METALS AND CYANIDE															
Antimony, dissolved (P)	7440-36-0	60			0	0	0	0	6	1E+100	1E+100	1E+100	1E+100	640	N/A
Arsenic, dissolved (P)	7440-38-2	0.5	4	1.16811352	2.488081798	2.4880818	2.4880818	2.79232055	10	100	200	340	150	9	N/A
Beryllium, dissolved	7440-41-7	0.5	0	0	0	0	0	0	4	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Cadmium, dissolved	7440-43-9	1		0	#REF!	#REF!	#REF!	#REF!	5	10	50	0.418091688	0.142116	1E+100	N/A
Chromium (III), dissolved	16065-83-1	10		0	0	0	0	0	1E+100	1E+100	1E+100	152.4888787	19.83567	1E+100	N/A
Chromium (VI), dissolved	18540-29-9	10			0	0	0	0	1E+100	1E+100	1E+100	16	11	1E+100	N/A
Chromium, dissolved	7440-47-3				0	0	0	0	100	100	1000	1E+100	1E+100	1E+100	N/A
Copper, dissolved	7440-50-8	0.5	0	0.58799187	1.252422683	1.25242268	1.25242268	1.00040143	1300	200	500	2.949857764	2.2637692	1E+100	N/A
Lead, dissolved	7439-92-1	0.5	0	0	0	0	0	0	15	5000	100	10.79154489	0.420531	1E+100	N/A
Manganese, dissolved	7439-96-5			2	4.26	4.26	4.26	3.40277301	1E+100	1E+100	1E+100	1746.691001	965.04856	1E+100	N/A

					Instream Waste Concentration										
			Ambient	Effluent	Acute	Domestic	Chronic	Human	Domestic	Irrigation	Livestock& Wildlife	Acute Aquatic	Chronic Aquatic	Human Health	Need TMDL
POLLUTANTS	CAS No.	MQL	Conc Ca (ug/l)	Conc. Ce (ug/l)	Aquatic 2.13*Ce	Supply Cd,dom (ug/l)	Aquatic Cd (ug/l)	Health Cd,hh (ug/l)	Criteria ug/l	Criteria ug/l	Criteria ug/l	Criteria ug/l	Criteria ug/l	Criteria ug/l	
Mercury, dissolved	7439-97-6	0.005		0	0	0	0	0	1E+100	1E+100	1E+100	1.4	0.77	1E+100	N/A
Mercury, total	7439-97-6	0.005		0.00445	0.0094785	0.0094785	0.0094785	0.00757117	2	1E+100	0.77	1E+100	1E+100	1E+100	N/A
Molybdenum, dissolved	7439-98-7		7	3.3	7.029	7.029	7.029	7.02316442	1E+100	1000	1E+100	1E+100	1E+100	1E+100	N/A
Molybdenum, total recoverable	7439-98-7				0	0	0	0	1E+100	1E+100	1E+100	7920	1895	1E+100	N/A
Nickel, dissolved (P)	7440-02-0	0.5		0	0	0	0	0	700	1E+100	1E+100	119.9874916	13.326906	4600	N/A
Selenium, dissolved (P)	7782-49-2	5			0	0	0	0	50	130	50	1E+100	1E+100	4200	N/A
Selenium, dis (SO4 >500 mg/l)		5			0	0	0	0	50	250	50	1E+100	1E+100	4200	N/A
Selenium, total recoverable	7782-49-2	5			0	0	0	0	1E+100	1E+100	5	20	5	1E+100	N/A
Silver, dissolved	7440-22-4	0.5		0	0	0	0	0	1E+100	1E+100	1E+100	0.201924903	1E+100	1E+100	N/A
Thalllium, dissolved (P)	7440-28-0	0.5			0	0	0	0	2	1E+100	1E+100	1E+100	1E+100	0.47	N/A
Zinc, dissolved	7440-66-6	20	0	3.535823479	7.531304011	7.53130401	7.53130401	6.01580234	10500	2000	25000	37.02425804	28.048347	26000	N/A
Cyanide, total recoverable	57-12-5	10	29	6.291	13.39983	13.39983	13.39983	16.5390053	200	1E+100	5.2	22	5.2	140	Need TMDL
Dioxin	1746-01-6	0.00001			0	0	0	0	3.00E-05	1E+100	1E+100	1E+100	1E+100	5.1E-08	N/A
VOLATILE COMPOUNDS															
Acrolein	107-02-8	50			0	0	0	0	18	1E+100	1E+100	1E+100	1E+100	400	N/A
Acrylonitrile	107-13-0	20			0	0	0	0	0.65	1E+100	1E+100	1E+100	1E+100	70	N/A
Benzene	71-43-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	160	N/A
Bromoform	75-25-2	10			0	0	0	0	44	1E+100	1E+100	1E+100	1E+100	1200	N/A
Carbon Tetrachloride	56-23-5	2			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	50	N/A
Chlorobenzene	108-90-7	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	800	N/A
Clorodibromomethane	124-48-1	10			0	0	0	0	4.2	1E+100	1E+100	1E+100	1E+100	210	N/A
Chloroform	67-66-3	50	0	0	0	0	0	0	57	1E+100	1E+100	1E+100	1E+100	2000	N/A
Dichlorobromomethane	75-27-4	10			0	0	0	0	5.6	1E+100	1E+100	1E+100	1E+100	270	N/A
1,2-Dichloroethane	107-06-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	6500	N/A
1,1-Dichloroethylene	75-35-4	10			0	0	0	0	7	1E+100	1E+100	1E+100	1E+100	20000	N/A
1,2-Dichloropropane	78-87-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	310	N/A
1,3-Dichloropropylene	542-75-6	10			0	0	0	0	3.5	1E+100	1E+100	1E+100	1E+100	120	N/A
Ethylbenzene	100-41-4	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	130	N/A
Methyl Bromide	74-83-9	50			0	0	0	0	49	1E+100	1E+100	1E+100	1E+100	10000	N/A
Methylene Chloride	75-09-2	20			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	10000	N/A
1,2,4,5-Tetrachlorobenzene	95-94-3				0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.03	N/A
1,1,2,2-Tetrachloroethane	79-34-5	10			0	0	0	0	1.8	1E+100	1E+100	1E+100	1E+100	30	N/A
Tetrachloroethylene	127-18-4	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	290	N/A
Tolune	108-88-3	10			0	0	0	0	1000	1E+100	1E+100	1E+100	1E+100	520	N/A
1,2-trans-Dichloroethylene	156-60-5	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	4000	N/A
1,1,1-Trichloroethane	71-55-6				0	0	0	0	200	1E+100	1E+100	1E+100	1E+100	200000	N/A
1,1,2-Trichloroethane	79-00-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	89	N/A
Trichloroethylene	79-01-6	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	70	N/A
Vinyl Chloride	75-01-4	10			0	0	0	0	2	1E+100	1E+100	1E+100	1E+100	16	N/A
ACID COMPOUNDS															
2-Chlorophenol	95-57-8	10			0	0	0	0	175	1E+100	1E+100	1E+100	1E+100	800	N/A
2,4-Dichlorophenol	120-83-2	10			0	0	0	0	105	1E+100	1E+100	1E+100	1E+100	60	N/A
2,4-Dimethylphenol	105-67-9	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	3000	N/A
3-Methyl-4-chlorophenol	59-50-7				0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	2000	N/A
2-Methyl-4,6-dinitrophenol	534-52-1	50			0	0	0	0	14	1E+100	1E+100	1E+100	1E+100	30	N/A

				Instream Waste Concentration											
		Ambient	Effluent	Acute	Domestic	Chronic	Human	Domestic	Irrigation	Livestock& Wildlife	Acute Aquatic	Chronic Aquatic	Human Health	Need TMDL
POLLUTANTS		Conc	Conc.	Aquatic	Supply	Aquatic	Health	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	
	CAS No. MQL	Ca (ug/l)	Ce (ug/l)	2.13*Ce	Cd,dom (ug/l)	Cd (ug/l)	Cd,hh (ug/l)	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
2,4-Dinitrophenol	51-28-5 50			0	0	0	0	70	1E+100	1E+100	1E+100	1E+100	300	N/A
Pentachlorophenol	87-86-5 50			0	0	0	0	1	1E+100	1E+100	19	15	30	N/A
Phenol	108-95-2 10		2.2	4.686	4.686	4.686	3.74305031	10500	1E+100	1E+100	1E+100	1E+100	860000	N/A
2,4,5-Trichlorophenol	95-95-4			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	600	N/A
2,4,6-Trichlorophenol	88-06-2 10			0	0	0	0	32	1E+100	1E+100	1E+100	1E+100	28	N/A
2-(2,4,5Trichlorophenoxy)propionic acid (Silvex)				0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	400	N/A
BASE/NEUTRAL														
Acenaphthene	83-32-9 10			0	0	0	0	2100	1E+100	1E+100	1E+100	1E+100	90	N/A
Anthracene	120-12-7 10			0	0	0	0	10500	1E+100	1E+100	1E+100	1E+100	400	N/A
Benzidine	92-87-5 50			0	0	0	0	0.0015	1E+100	1E+100	1E+100	1E+100	0.11	N/A
Benzo(a)anthracene	56-55-3 5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.013	N/A
Benzo(a)pyrene	50-32-8 5			0	0	0	0	0.2	1E+100	1E+100	1E+100	1E+100	0.0013	N/A
3,4-Benzofluoranthene	205-99-2 10			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.0013	N/A
Benzo(k)fluoranthene	207-08-9 5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.13	N/A
Bis(2-chloroethyl)Ether	111-44-4 10			0	0	0	0	0.3	1E+100	1E+100	1E+100	1E+100	22	N/A
Bis(2-chloro-1-methylethyl) ether	108-60-1 10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	4000	N/A
Bis(2-ethylhexyl)Phthalate	117-81-7 10	0	0	0	0	0	0	6	1E+100	1E+100	1E+100	1E+100	3.7	N/A
Bis(chloromethyl) ether	542-88-1			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.17	N/A
Butyl Benzyl Phthalate	85-68-7 10			0	0	0	0	7000	1E+100	1E+100	1E+100	1E+100	1	N/A
2-Chloronapthalene	91-58-7 10			0	0	0	0	2800	1E+100	1E+100	1E+100	1E+100	1000	N/A
Chrysene	218-01-9 5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	1.3	N/A
2,4-Dichlorophenoxyacetic acid	94-75-7			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	12000	N/A
Dibenzo(a,h)anthracene	53-70-3 5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.0013	N/A
1,2-Dichlorobenzene	95-50-1 10			0	0	0	0	600	1E+100	1E+100	1E+100	1E+100	3000	N/A
1,3-Dichlorobenzene	541-73-1 10			0	0	0	0	469	1E+100	1E+100	1E+100	1E+100	10	N/A
1,4-Dichlorobenzene	106-46-7 10		0.063	0.13419	0.13419	0.13419	0.10718735	75	1E+100	1E+100	1E+100	1E+100	900	N/A
3,3'-Dichlorobenzidine	91-94-1 5			0	0	0	0	0.78	1E+100	1E+100	1E+100	1E+100	1.5	N/A
Diethyl Phthalate	84-66-2 10			0	0	0	0	28000	1E+100	1E+100	1E+100	1E+100	600	N/A
Dimethyl Phthalate	131-11-3 10			0	0	0	0	350000	1E+100	1E+100	1E+100	1E+100	2000	N/A
Di-n-Butyl Phthalate	84-74-2 10			0	0	0	0	3500	1E+100	1E+100	1E+100	1E+100	30	N/A
2,4-Dinitrotoluene	121-14-2 10			0	0	0	0	1.1	1E+100	1E+100	1E+100	1E+100	17	N/A
1,2-Diphenylhydrazine	122-66-7 20			0	0	0	0	0.44	1E+100	1E+100	1E+100	1E+100	2	N/A
Fluoranthene	206-44-0 10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	20	N/A
Fluorene	86-73-7 10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	70	N/A
Hexachlorobenzene	118-74-1 5			0	0	0	0	1	1E+100	1E+100	1E+100	1E+100	0.00079	N/A
Hexachlorobutadiene	87-68-3 10			0	0	0	0	4.5	1E+100	1E+100	1E+100	1E+100	0.1	N/A
Hexachlorocyclohexane (HCH)-T	608-73-1			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.1	N/A
Hexachlorocyclopentadiene	77-47-4 10			0	0	0	0	50	1E+100	1E+100	1E+100	1E+100	4	N/A
Hexachloroethane	67-72-1 20			0	0	0	0	25	1E+100	1E+100	1E+100	1E+100	1	N/A
Indeno(1,2,3-cd)Pyrene	193-39-5 5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.013	N/A
Isophorone	78-59-1 10			0	0	0	0	368	1E+100	1E+100	1E+100	1E+100	18000	N/A
Nitrobenzene	98-95-3 10			0	0	0	0	18	1E+100	1E+100	1E+100	1E+100	600	N/A
Nitrosamines	Various			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	12.4	N/A
Nitrosodibutylamine	924-16-3			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	2.2	N/A
Nitrosodiethylamine	55-18-5			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	12.4	N/A
n-Nitrosodimethylamine	62-75-9 50			0	0	0	0	0.0069	1E+100	1E+100	1E+100	1E+100	30	N/A
n-Nitrosodi-n-Propylamine	621-64-7 20			0	0	0	0	0.05	1E+100	1E+100	1E+100	1E+100	5.1	N/A
n-Nitrosodiphenylamine	86-30-6 20			0	0	0	0	71	1E+100	1E+100	1E+100	1E+100	60	N/A
N-Nitrosopyrrolidine	930-55-2			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	340	N/A
Nonylphenol	84852-15-3			0	0	0	0	1E+100	1E+100	1E+100	28	6.6	1E+100	N/A
Pentachlorobenzene	608-93-5			0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.1	N/A
Pyrene	129-00-0 10			0	0	0	0	1050	1E+100	1E+100	1E+100	1E+100	4000	N/A
1,2,4-Trichlorobenzene	120-82-1 10			0	0	0	0	70	1E+100	1E+100	1E+100	1E+100	0.76	N/A

						Instream Waste Concentration						Livestock&	Acute	Chronic	Human	Need
				Ambient	Effluent	Acute	Domestic	Chronic	Human	Domestic	Irrigation	Wildlife	Aquatic	Aquatic	Health	TMDL
POLLUTANTS				Conc	Conc.	Aquatic	Supply	Aquatic	Health	Criteria	Criteria	Criteria	Criteria	Criteria	Criteria	
		CAS No.	MQL	Ca (ug/l)	Ce (ug/l)	2.13*Ce	Cd,dom (ug/l)	Cd (ug/l)	Cd,hh (ug/l)	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
PESTICIDES AND PCBS																
Aldrin		309-00-2	0.01			0	0	0	0	0.021	1E+100	1E+100	3	1E+100	0.0000077	N/A
Alpha-BHC		319-84-6	0.05			0	0	0	0	0.056	1E+100	1E+100	1E+100	1E+100	0.0039	N/A
Beta-BHC		319-85-7	0.05			0	0	0	0	0.091	1E+100	1E+100	1E+100	1E+100	0.14	N/A
gamma-BHC (Lindane)		58-89-9	0.05			0	0	0	0	0.2	1E+100	1E+100	0.95	1E+100	4.4	N/A
Chlordane		57-74-9	0.2			0	0	0	0	2	1E+100	1E+100	2.4	0.0043	0.0032	N/A
Dichlorodiphenyldichloroethane (DDD)						0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.0012	N/A
Dichlorodiphenyldichloroethylene (DDE)						0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.00018	N/A
Dichlorodiphenyltrichloroethane (DDT)						0	0	0	0	1E+100	1E+100	1E+100	1E+100	1E+100	0.0003	N/A
4,4'-DDT and derivatives		50-29-3	0.02			0	0	0	0	1	1E+100	0.001	1.1	0.001	1E+100	N/A
Dieldrin		60-57-1	0.02			0	0	0	0	0.022	1E+100	1E+100	0.24	0.056	0.000012	N/A
Diazinon		333-41-5				0	0	0	0	1E+100	1E+100	1E+100	0.17	0.17	1E+100	N/A
Alpha-Endosulfan		959-98-8	0.01			0	0	0	0	62	1E+100	1E+100	0.22	0.056	30	N/A
Beta-Endosulfan		33213-65-9	0.02			0	0	0	0	62	1E+100	1E+100	0.22	0.056	40	N/A
Endosulfan sulfate		1031-7-8	0.1			0	0	0	0	62	1E+100	1E+100	1E+100	1E+100	40	N/A
Endrin		72-20-8	0.02			0	0	0	0	2	1E+100	1E+100	0.086	0.036	0.03	N/A
Endrin Aldehyde		7421-93-4	0.1			0	0	0	0	10.5	1E+100	1E+100	1E+100	1E+100	1	N/A
Heptachlor		76-44-8	0.01			0	0	0	0	0.4	1E+100	1E+100	0.52	0.0038	0.000059	N/A
Heptachlor Epoixde		1024-57-3	0.01			0	0	0	0	0.2	1E+100	1E+100	0.52	0.0038	0.00032	N/A
PCBs		336-36-3	0.2			0	0	0	0	0.5	1E+100	0.014	2	0.014	0.00064	N/A
Toxaphene		8001-35-2	0.3	0	0	0	0	0	0	3	1E+100	1E+100	0.73	0.0002	0.0071	N/A

STEP 3: SCAN POTENTIAL INSTREAM WASTE CONCENTRATIONS AGAINST WATER QUALITY CRITERIA

AND ESTABLISH EFFLUENT LIMITATIONS FOR ALL APPLICABLE PARAMETERS

No limits are established if the receiving stream is not designated for the particular uses.

No limits are established if the potential instream waste concentrations are less than the chronic water quality criteria.

The most applicable stringent criteria are used to establish effluent limitations for a given parameter.

Water quality criteria apply at the end-of-pipe for acute aquatic life criteria and discharges to public lakes.

If background concentration exceeds the water quality criteria, water quality criteria apply. And "Need TMDL" shown to the next column of Avg. Mass

Monthly avg concentration = daily max. / 1.5.

APPLICABLE WATER QUALITY-BASED LIMITS

The following formular is used to calculate the allowable daily maximum effluent cincentration — See the current "Procedures for Implementing NPDES Permits in New Mexico"

Daily Max. Conc. = Cs + (Cs - Ca)(F*Qa/Qe) — Monthly Avg. Conc. = Daily Max. Conc. / 1.5

Where:

Cs = Applicable water quality standard

Ca = Ambient stream concentration

F = Fraction of stream allowed for mixing (1.0 is assigned to domestic water supply and human health uses)

Qe = Plant effluent flow

Qa = Criteria Low flow (4Q3) or Harmonic Mean flow for Human Health Criteria

POLLUTANTS	CAS No.	STORET	Domestic Limits	Irrigation Limits	Livestock or Wildlife Limits	Acute Aquatic Limits	Chronic Aquatic Limits	Human Health Limits	Daily Max Conc ug/l	Monthly Avg Conc ug/l	Daily Max Total ug/l	Mon. Avg Total ug/l	Daily Max Load lb/day	Monthly Avg Load lb/day
Radioactivity, Nutrients, and Chlorine, as Total														
Aluminum, Total	7429-90-5	01105	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aluminum, dissolved	7429-90-5		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Barium, Total	7440-39-3	01007	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Boron, Total	7440-42-8	01022	N/A	750	N/A	N/A	N/A	N/A	750	750	750	750	6.56775	6.56775
Cobalt, Total	7440-48-4	01037	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Uranium, Total	7440-61-1	22706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium, Total	7440-62-2	01087	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ra-226 and Ra-228 (pCi/l)		11503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Strontium (pCi/l)		13501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tritium (pCi/l)		04124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gross Alpha (pCi/l)		80029	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Asbestos (fibers/l)			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Residual Chlorine	7782-50-5	50060	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ammonia as N, total (mg/l)			N/A	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Nitrate as N (mg/l)		00620	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrite + Nitrate (mg/l)		00630	N/A	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
METALS AND CYANIDE, as Total														
Antimony, Total (P)	7440-36-0	01097	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, Total (P)	7440-38-2	1002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, Total	7440-41-7	01012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, Total	7440-43-9	01027	N/A	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Chromium (III), dissolved	16065-83-1	01033	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (VI), dissolved	18540-29-9	01034	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, Total	7440-47-3	01034	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, Total	7440-50-8	01042	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, Total	7439-92-1	01051	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese, dissovled	7439-96-5	01056	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, Dissolved	7439-97-6	71900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, Total	7439-97-6	71900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Molybdenum, dissolved	7439-98-7	1060	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Molybdenum, total recoverable	7439-98-7	01062	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, Total (P)	7440-02-0	01067	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, Total (P)	7782-49-2	01147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, Total (SO4 >500 mg/l)		01147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, Total recoverable	7782-49-2	01147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver, Total	7440-22-4	01077	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thalllium, Total (P)	7440-28-0	01059	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, Total	7440-66-6	1092	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide, total recoverable	57-12-5	00720	N/A	N/A	5.2	N/A	5.2	N/A	5.2	5.2	5.2	5.2	0.0455364	0.0455364
DIOXIN														0
2,3,7,8-TCDD	1746-01-6	34675	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VOLATILE COMPOUNDS														
Acrolein	107-02-8	34210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrylonitrile	107-13-0	34215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	71-43-2	34030	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bromoform	75-25-2	32104		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	56-23-5	32102		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
						Livestock	Acute	Chronic	Human	Daily	Monthly	Daily Max	Mon. Avg	Daily	Monthly
POLLUTANTS	CAS No.	STORET		Domestic	Irrigation	or Wildlife	Aquatic	Aquatic	Health	Max Conc	Avg Conc	Total	Total	Max Load	Avg Load
				Limits	Limits	Limits	Limits	Limits	Limits	ug/l	ug/l	ug/l	ug/l	lb/day	lb/day
Chlorobenzene	108-90-7	34301		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clorodibromomethane	124-48-1	32105		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	67-66-3	32106		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorobromomethane	75-27-4	32101		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	107-06-2	34531		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethylene	75-35-4	34501		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane	78-87-5	34541		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropylene	542-75-6	34561		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	100-41-4	34371		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Bromide	74-83-9	34413		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride	75-09-2	34423		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	95-94-3			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	34516		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethylene	127-18-4	34475		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tolune	108-88-3	34010		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-trans-Dichloroethylene	156-60-5	34546		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane	71-55-6			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	79-00-5	34511		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethylene	79-01-6	39180		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	75-01-4	39175		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ACID COMPOUNDS															
2-Chlorophenol	95-57-8	34586		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	120-83-2	34601		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	105-67-9	34606		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Methyl-4-chlorophenol	59-50-7			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methyl-4,6-dinitrophenol	534-52-1	34657		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	51-28-5	34616		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	87-86-5	39032		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenol	108-95-2	34694		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol	95-95-4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	88-06-2	34621		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-(2,4,5Trichlorophenoxy)propionic acid (Silvex)				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BASE/NEUTRAL															
Acenaphthene	83-32-9	34205		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Anthracene	120-12-7	34220		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzidine	92-87-5	39120		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)anthracene	56-55-3	34526		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	50-32-8	34247		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,4-Benzofluoranthene	205-99-2	34230		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	207-08-9	34242		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-chloroethyl)Ether	111-44-4	34273		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-chloro-1-methylethyl) ether	108-60-1	34283		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-ethylhexyl)Phthalate	117-81-7	39100		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(chloromethyl) ether	542-88-1			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Butyl Benzyl Phthalate	85-68-7	34292		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chloronapthalene	91-58-7	34581		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	218-01-9	34320		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenoxyacetic acid	94-75-7			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenzo(a,h)anthracene	53-70-3	34556		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	95-50-1	34536		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

POLLUTANTS	CAS No.	STORET	Domestic Limits	Irrigation Limits	Livestock or Wildlife Limits	Acute Aquatic Limits	Chronic Aquatic Limits	Human Health Limits	Daily Max Conc ug/l	Monthly Avg Conc ug/l	Daily Max Total ug/l	Mon. Avg Total ug/l	Daily Max Load lb/day	Daily Avg Load lb/day
1,3-Dichlorobenzene	541-73-1	34566	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene	106-46-7	34571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	91-94-1	34631	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diethyl Phthalate	84-66-2	34336	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dimethyl Phthalate	131-11-3	34341	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Di-n-Butyl Phthalate	84-74-2	39110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	121-14-2	34611	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Diphenylhydrazine	122-66-7	34346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	206-44-0	34376	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluorene	86-73-7	34381	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobenzene	118-74-1	39700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobutadiene	87-68-3	34391	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorocyclohexane (HCH)-T	608-73-1		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorocyclopentadiene	77-47-4	34386	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachloroethane	67-72-1	34396	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)Pyrene	193-39-5	34403	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isophorone	78-59-1	34408	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	98-95-3	34447	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrosamines	Various		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrosodibutylamine	924-16-3		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrosodiethylamine	55-18-5		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Nitrosodimethylamine	62-75-9	34438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Nitrosodi-n-Propylamine	621-64-7	34428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Nitrosodiphenylamine	86-30-6	34433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosopyrrolidine	930-55-2		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonylphenol	84852-15-3		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorobenzene	608-93-5		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	129-00-0	34469	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	34551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PESTICIDES AND PCBS														
Aldrin	309-00-2	39330	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alpha-BHC	319-84-6	39337	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beta-BHC	319-85-7	39338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gamma-BHC	58-89-9	39340	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlordane	57-74-9	39350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodiphenyldichloroethane (DDD)			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodiphenyldichloroethylene (DDE)			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodiphenyltrichloroethane (DDT)			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDT and derivatives	50-29-3	39300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	60-57-1	39380	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diazinon	333-41-5	39570	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alpha-Endosulfan	959-98-8	34361	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beta-Endosulfan	33213-65-9	34356	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan sulfate	1031-7-8	34351	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin	72-20-8	39390	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin Aldehyde	7421-93-4	34366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	76-44-8	39410	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor Epoixde	1024-57-3	39420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs	336-36-3	39516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	8001-35-2	39400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix 2

Facility Name	Dona Ana Regional WWTP							
NPDES Permit Number	NM0031178					Outfall Number	001	
Proposed Critical Dilution*	100							
			***Critical Dilution in draft permit, do not use % sign.**					
			Enter data in yellow shaded cells only. Fifty percent should be entered as 50, not 50%.					
Test Data								
		VERTEBRATE				INVERTEBRATE		
Date (mm/yyyy)	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU
12/31/20	100	100	1.00	1.00	100	100	1.00	1.00
3/31/21	56	32	1.79	3.13	56	42	1.79	2.38
6/30/21	42	32	2.38	3.13	75	56	1.33	1.79
9/30/21	75	32	1.33	3.13	100	42	1.00	2.38
12/31/21	75	75	1.33	1.33	56	32	1.79	3.13
3/31/22	42	42	2.38	2.38	42	42	2.38	2.38
6/30/22	42	42	2.38	2.38	75	56	1.33	1.79
9/30/22	56	42	1.79	2.38	56	56	1.79	1.79
12/31/22	100	100	1.00	1.00	100	100	1.00	1.00
3/31/23	56	32	1.79	3.13	75	75	1.33	1.33
6/30/23	42	32	2.38	3.13	75	56	1.33	1.79
Sep-23	42	42	2.38	2.38	56	42	1.79	2.38
Dec-23	100	100	1.00	1.00	100	100	1.00	1.00
Mar-24	56	32	1.79	3.13	75	56	1.33	1.79
6/31/2024	42	42	2.38	2.38	56	32	1.79	3.13
	42	32	2.38	3.13	42	32	2.38	3.13
Count			15	15			15	15
Mean			1.806	2.333			1.465	1.936
Std. Dev.			0.559	0.850			0.406	0.693
CV			0.3	0.4			0.3	0.4
RPMF			1.2	1.3			1.2	1.3
		1	Reasonable Potential Acceptance Criteria					
Vertebrate Lethal		2.857	Reasonable Potential exists, Permit requires WET monitoring and WET limit.					
Vertebrate Sublethal		4.063	Reasonable Potential exists, Permit requires WET monitoring and WET limit.					
Invertebrate Lethal		2.857	Reasonable Potential exists, Permit requires WET monitoring and WET limit.					
Invertebrate Sublethal		4.0625	Reasonable Potential exists, Permit requires WET monitoring and WET limit.					