NPDES PERMIT NO. NM0024066

FACT SHEET

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

APPLICANT

Town of Taos Wastewater Treatment Facility
P.O. Box 250
Ranchos de Taos, NM 87557

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY

Quang Nguyen
Environmental Engineer
NPDES Permits & TMDL Branch (6WQ-P)
Water Division
VOICE: 214-665-7238
FAX: 214-665-2191
EMAIL: Nguyen.Quang@epa.gov

DATE PREPARED

February 14, 2018

PERMIT ACTION

Proposed reissuance of the current NPDES permit issued July 17, 2012, with an effective date of September 1, 2012, and an expiration date of August 31, 2017.

RECEIVING WATER – BASIN

Unnamed Arroyo - Rio Pueblo de Taos – 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
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
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 either or both the State of New Mexico and/or the Pueblo of Taos.

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued July17, 2012, with an effective date of September 1, 2012, and an expiration date of August 31, 2017, are:

1. Sufficiently Sensitive Methods requirements have been added;
2. Limits for BOD_5 have been changed to 17/21 mg/L from 30/45 mg/L along with the mass loadings; and,
3. Mercury monitoring requirements have been revised.

II. APPLICATION LOCATION and ACTIVITY

As described in the application, the wastewater treatment plant is located at 1030 Dea Ln in Taos, Taos County, New Mexico. The effluent from the treatment plant is discharged into an unnamed arroyo that flows for approximately ¾ mile and then drains into the reach of the Rio Pueblo de Taos that is in Segment 122 (20.6.4.122 NMAC). The discharge is located on that water at latitude 36° 22' 24" N and longitude 105° 39' 21" W, in Taos County, New Mexico. Under the SIC Code 4952, the discharge is from a publicly owned treatment works (POTW) with a design capacity of 2.0 MGD serving a total population of 6602 that includes Town of Taos, Taos Pueblo, El Valle de Los Ranchos and El Prado.

As described in the application and a Compliance Evaluation Inspection dated June 14, 2017, the treatment processes for the facility is as follows:

The raw wastewater flows by gravity flow to the enclosed entrance works. The raw sewage is screened by parallel channels with bar screen and grinders. There is no manual bypass channel for influent flow. The removed solids are compacted by the grinder and screening process and sent to a hopper for final disposal at the Rio Rancho Landfill.

A station for septate haulers is located at the head works. In order to protect the WWTP process, septate haulers must test their loads for pH and other parameters before being allowed to dump the waste at the treatment plant. A log is kept of these loads.

Flow is then directed through a splitter box that sends the wastewater to either the East or West aeration basin. The basins from the old treatment plant have been reconfigured so that half of each basin has a series of fine bubble diffusers to create an aerated zone, and the other half of each basin has mixers only that constitute the anoxic zone. The water enters the basins in the anoxic zone and exits the basin past the aerobic zone. The anoxic zone had dense grey foam about 1-foot-thick on the surface. The east basin is currently off line due to some fine bubble diffusers inoperable at this time. The facility is working on repair of the diffusers at this time.

The partially treated wastewater then enters the Membrane Biological Reactor (MBR) system. The MBR consists of four basins with filters, aerators and mixers. The basins are run

simultaneously and in parallel. Return Activated Sludge is sent back to the splitter box past the grit removal basin. Waste Activated Sludge (WAS) is pulled from the return line. Wasting of solids is done every day for one to five hours depending on flow and Mixed Liquor Suspended Solids (MLSS). The MBR system can accommodate a much higher MLSS than other activated sludge processes, from 7,000 mg/L to 13,000 mg/L according to operators. The processed water is called Permeate Water. Permeate water is continuously sent to the Ultraviolet Disinfection system prior to discharge.

The UV chamber consists of two banks of lights with 14 modules of 8 bulbs each that are kept submerged by a weighted check dam. The lights are turned on 100% of the time. Following in the treatment train is a 12 inch Parshall flume and staff gauge with a secondary Drexelbrook flow measurement device. A portion of the flow is diverted to a golf course storage pond for reuse irrigation during the warm months of the year.

Waste Activated Sludge (WAS) is pulled from the return line. Wasting of solids is done every day for one to five hours depending on flow and Mixed Liquor Suspended Solids (MLSS). The sludge that consists of 2% - 5% solids is sent to the belt press for dewatering. A polymer coagulant is added to the solids. From the belt press solids are deposited into a large roll-off bin. When filled, the bin is taken to the Rio Rancho Landfill for final surface disposal.

III. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, approved by EPA on June 8, 2017). The facility discharges into an unnamed arroyo thence to the Rio Pueblo de Taos in Waterbody Segment No. 20.6.4.122 of the Rio Grande Basin. The designated uses of the Rio Pueblo de Taos receiving water are coldwater aquatic life, fish culture, irrigation, wildlife habitat, livestock watering, and primary contact. The unnamed arroyo is now classified as a perennial water in NMAC Segment 20.6.4.99. The designated uses include: Warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

The north bank of the Rio Pueblo de Taos, also known as the Rio Pueblo, is bordered by the Pueblo of Taos. The Pueblo of Taos has WQS approved by EPA on June 19, 2006, which apply to the northern half of the river, while State WQS applying to the southern half. The Pueblo of Taos WQS establish designed uses of the Rio Pueblo, below Los Cordovas as domestic water supply (including groundwater recharge), wildlife habitat, cold water fishery, irrigation, livestock watering & wildlife water, aquatic life (acute & chronic criteria), and primary human contact/ceremonial use.

IV. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A and addendum received March 17, 2017, June 23, 2017, and January 5, 2018 are presented below in Table 1:

Table 1

Parameter	Max	Avg
Flow, million gallons/day (MGD)	1.20	1.03
Temperature, winter	20.30°C	13.65°C
Temperature, summer	22.10 °C	20.10 °C
pH, minimum, standard units (SU)	7.01 su	N/A
pH, maximum, standard units (SU)	8.13 su	N/A
Biochemical Oxygen Demand, (BOD)	10.90 mg/L	2.90 mg/L
Fecal Coliform (bacteria/100 ml)	7.80	10.90
Total Suspended Solids (TSS)	10.60 mg/L	6.80 mg/L
Ammonia (as N)	1.0 mg/L	1.0 mg/L
Total Residual Chlorine (ug/l)	3.00	2.18
Total Kjeldahl Nitrogen (TKN)	2.5 mg/L	1.21 mg/L
Nitrate plus Nitrite Nitrogen	15.00 mg/L	6.54 mg/L
Dissolved Oxygen (DO)	8.01 mg/L	7.83 mg/L
Phosphorus (Total)	3.0 mg/L	2.5 mg/L
Nitrogen (Total)	17.5 mg/L	7.75 mg/L
Total Dissolved Solids (TDS)	610 mg/L	377.2 mg/L

Footnotes:
T - Total metal form

The facility has to 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
Beryllium	2 ug/l	2 ug/l
Copper, T	4.05 ug/l	4.05 ug/l
Lead	0.75 ug/l	0.75 ug/l
Zinc, T	60 ug/l	60 ug/l
Hardness (as $CaCO_3$)	250 mg/l	246.7 mg/l
Mercury	0.0231 ug/l	0.0012 ug/l
2-Chloronaphthalene	0.74 ug/l	0.25 ug/l

A summary of the last 36 months of available pollutant data from January 2014 through January 2017, taken from DMRs shows no exceedances of permit limits for Mercury, pH, Ammonia, TRC, TSS, FCB, E. coli, or BOD_5. In addition to all the priority pollutants identified in Part D, the permittee sampled and tested for barium, strontium and uranium. The results are shown in Table 3.

Table 3

Parameter	Concentration
Barium	0.054 mg/L
Strontium	0.207 pCi/L
Uranium	0.0026 mg/L

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 initially issued July 17, 2012, with an effective date of September 1, 2012, and an expiration date of August 31, 2017 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 fecal coliform bacteria, *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 (su) 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 4 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 * 2.0 MGD
30-day average TSS loading = 500 lbs

7-day average TSS loading = 45 mg/l * 8.345 lbs/gal * 2.0 MGD
7-day average TSS loading = 751 lbs

30-day average BOD_5 loading = 30 mg/l * 8.345 lbs/gal * 2.0 MGD
30-day average BOD_5 loading = 500 lbs

7-day average BOD_5 loading = 45 mg/l * 8.345 lbs/gal * 2.0 MGD
7-day average BOD_5 loading = 751 lbs

Technology-Based Effluent Limits – 2.0 MGD design flow.

Table 4

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	500 lbs/Day	751 lbs/Day	30 mg/L	45 mg/L
BOD_5, % removal, minimum [*1]	≥ 85%	---	---	---
TSS	500 lbs/Day	751 lbs/Day	30 mg/L	45 mg/L
TSS, % removal, minimum [*1]	≥ 85%	---	---	---

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

The facility will be required to maintain a log and kept at the facility showing the influent of BOD and TSS on a once per week frequency to be used to determine the removal percentage. This data is not required to be submitted but must be 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 and Tribal Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, approved by EPA on June 8, 2017). The facility discharges into an unnamed arroyo thence to the Rio Pueblo de Taos in Waterbody Segment No. 20.6.4.122 of the Rio Grande Basin. The unnamed arroyo is now classified as a perennial water in NMAC Segment 20.6.4.99. The designated uses include:

Warmwater aquatic life, livestock watering, wildlife habitat and primary contact. The designated uses of Rio Pueblo de Taos are coldwater aquatic life, fish culture, irrigation, wildlife habitat, livestock watering, and primary contact.

The north half of the Rio Pueblo de Taos, also known as the Rio Pueblo, is under the jurisdiction of the Pueblo of Taos. The Pueblo of Taos has WQS approved by EPA on June 19, 2006. The Pueblo of Taos WQS establishes designed uses of the Rio Pueblo, below Los Cordovas as domestic water supply (including groundwater recharge), wildlife habitat, cold water fishery, irrigation, livestock watering & wildlife water, aquatic life (acute & chronic criteria), and primary human contact/ceremonial use.

In this document, references to State/Tribal WQS and/or rules shall mean collectively either or both the Pueblo of Taos and/or the State of New Mexico. Where different standards apply for a particular pollutant, the most stringent standard will be used to develop effluent limitations in order to protect for all applicable designated uses.

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/Tribal WQS that are more stringent than ELGs are as follows:

a. pH

The State of New Mexico WQS criteria applicable to the coldwater aquatic life designated use and Pueblo of Taos WQS criteria for the cold water fishery designated use require pH to be between 6.6 and 8.8 s.u. This is more restrictive than the mentioned technology-based limits. Limits of 6.6 to 8.8 su for pH in the previous permit, which are more stringent than the technology-based limits presented earlier, will be continued in the draft permit.

b. Bacteria

New Mexico has adopted E. coli as the State bacteria standard in lieu of FCB. The NMWQS criteria require E. coli of 126 cfu/100 mL monthly geometric mean and single sample of 410 cfu/100 ml, end-of-pipe to protect the primary contact designated use. However, NMWQS establishes segment-specific criteria for Waterbody Segment No. 20.6.4.122 of the Rio Grande Basin for monthly geometric mean for E. coli of 126 cfu/100 mL and single sample of 235 cfu/100 mL. Pueblo of Taos numeric criteria for the ceremonial use – primary human contact designated use requires a monthly geometric mean for E. coli of 126 cfu/100 mL and single sample of 235 cfu/100 mL. These criteria are more restrictive than the segment-specific criteria established for Waterbody Segment No. 20.6.4.99 (i.e., monthly geometric mean for E. coli of 206 cfu/100 mL and single sample of 940 cfu/100 mL). In addition, Pueblo of Taos numeric criteria for the ceremonial use – primary human contact designated use requires a monthly geometric mean for FCB of 200 cfu/100 mL and single sample of 400 cfu/100 mL.

The FCB limits of 200 cfu/100 mL (monthly geometric mean) and 400 cfu/100 mL (single maximum), and the E. coli bacteria limits of 126 cfu/100 mL (monthly geometric mean) and 235 cfu/100 mL (single maximum) in the previous permit will be continued in the draft permit.

c. Dissolved Oxygen (DO)

The State of New Mexico and Taos Pueblo WQS criterion applicable to the high quality coldwater aquatic life designated use is at least 6 mg/L for dissolved oxygen. As a part of the permitting process, EPA used a steady-state model LA-QUAL to evaluate the impact of facility effluent on the receiving water dissolved oxygen. A complete characterization of the receiving water was not available. Default values were used to estimate the various unavailable hydrodynamic and water quality parameters. Certain parameters, including 4Q3 and BOD_5 (30 mg/l for monthly average, 45 mg/l for 7-day maxima; "30/45 BOD") were available and utilized. The discharge was modeled using data obtained from the application, permits limits and defaults were used for unavailable discharge characterization data. The modeled output shows an excursion of the DO standard of 6 mg/L part of the receiving water (see graph with 30/45 BOD in Appendix 4; other detail information is available upon request). Various BOD factors were considered and simulated to achieve the DO criterion; EPA believes the optimal levels of BOD are 17/21 (see attached graph with 17/21 BOD in Appendix 5). The reported effluent BOD in form 2A are 2.9 mg/L (avg.) and 10.9 mg/L (max.); which are below the 17/21 levels. EPA establishes the water-based limits for BOD of 17 mg/L (avg.) and 21 mg/L (max.) in the draft permit; mass loadings are calculated with the same method for TSS above. Compliance schedule is not needed because the effluent has met this newly-established limits. This BOD limitation may be re-evaluated against the WQS in the next permit renewal process.

d. 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 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. 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 NPDES Form 2A application on March 17, 2017 application. However, supplemental pollutant data was not included in Part D of

Form 2A. On June 23, 2017, the facility submitted the revised Form 2A. The pollutants were either tested above MQLs or were tested at levels above EPA MQL and reported as being non detect are listed in Table 2 in Part IV of this fact sheet. Copper, Lead, Mercury, 2-Chloronaphthalene and Zinc were found above minimum MQL. Meanwhile, Beryllium, was tested at levels above EPA MQL and reported as being non detect.

In addition to all of these pollutants, the Barium, Strontium and Uranium data, which were submitted on January 5, 2018, were evaluated for reasonable potential (RP) to cause or contribute to State/Tribal WQS exceedances. If RP exists, the screen calculates the appropriate permit limit needed to be protective of such designated uses.

Critical conditions are used to establish certain permit limitations and conditions. Both the state and tribal 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 NMED provided the 4Q3 of 0 cfs and 7.39 cfs and the harmonic mean flow of 0 cfs and 9.37 cfs for the unnamed arroyo and Rio Pueblo de Taos, respectively. When the 4Q3 of receiving water is zero, the discharge must meet end-of-pipe criteria, and the CD is 100%.

The EPA conducted two separate reasonable potential analyses. One of the RP analyses, EPA used a "0" 4Q3 and > "0" harmonic mean for evaluation of the reasonable potential for discharges of pollutants from the Taos WWTP to cause or contribute to exceedances of all human health criteria and all other acute and chronic numeric criteria set forth in 20.6.4.900 NMAC for the warmwater aquatic life, livestock watering, wildlife habitat and primary contact designated uses of the 20.6.4.99 NMAC receiving stream. For the other RP analysis, EPA used a "7.39 cfs" 4Q3 and "9.37 cfs" harmonic mean to calculate a reasonable potential for the Rio Pueblo de Taos for the designated uses of domestic supply, wildlife habitat, irrigation, livestock and wildlife watering, and aquatic life (acute and chronic criteria). This calculation utilizes the numeric criteria of the Taos Pueblo WQS. Both of the RP analyses based on the NMIP as of March 15, 2012. The results of New Mexico and Pueblo of Taos RP analyses, in Appendices 1 and 2, respectively, indicate the pollutant data did not demonstrate reasonable potential to exceed State/Tribal WQS of the receiving water.

In the previous permit, EPA conducted a RP analysis for the Mercury pollutant, which was reported in excess of the EPA's MQL. The pollutant demonstrated reasonable potential to exceed the Tribal WQS. As a result, EPA included limitations for Mercury in the previous permit. As mentioned, the results of the two separate RP analyses indicate no RP exist for the pollutants including Mercury. Mercury is still found in the facility effluent, but no exceedance of the Mercury permit limits, based on DMR, occurred during the last permit cycle The draft permit is proposing to reduce the Mercury monitoring requirement to once per week. The Mercury limits of 0.027 ug/L and 0.00045 lbs/day (monthly geometric mean), and 0.041 ug/L and 0.00068 lbs/day (daily maximum) in the previous permit will be continued in the draft permit.

(ii) TRC

The facility uses UV disinfection, so chlorine is not normally added to the effluent. The TRC limit of 3 µg/L when chlorine is used in the previous permit will be continued in the draft permit.

(iii) Ammonia

Since the unnamed arroyo waterbody is impaired for Ammonia and Nutrients/Eutrophication, the Ammonia concentration limits of 3.75 mg/L (monthly geometric mean) and 5.62 mg/L (daily maximum), and the Ammonia mass limits of 63 lbs/day (monthly geometric mean) and 94 lbs/day (daily maximum) in the previous permit will be remained in the draft permit.

5. 303(d) List Impacts

Both the unnamed arroyo and Rio Pueblo de Taos (from Arroyo del Alamo to Rio Grande del Rancho) are listed on the "2014-2016 State of New Mexico Integrated Clean Water Act Section 303(d) / 305(b) Report." The unnamed arroyo waterbody is impaired for Ammonia and Nutrients/Eutrophication. Meanwhile, the Rio Pueblo de Taos is impaired for E. coli, Plant Nutrients, Eutrophication Biological Indicators, Specific Conductance, and Temperature. A TMDL for temperature and stream bottom deposits for the Upper Rio Grande Watershed, which includes the Rio Pueblo de Taos, was approved by EPA on December 17, 2004. No point source contributions were associated with this TMDL. No Ammonia and Nutrients/Eutrophication TMDL(s), to date, has been developed for the unnamed arroyo and the Rio Pueblo de Taos. Monitoring requirements for total nitrogen and total phosphorus which are in the previous permit for use in future TMDL development will be remained in the draft permit. Once the TMDL(s) is developed and approved, 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.

The standard reopener language in the permit allows additional permit conditions if warranted by new or revised 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). Technology based pollutants; BOD_5 and TSS, are proposed to be monitored once per week consistent with the previous permit. Sample type for BOD_5 and TSS is 6-hour composite. Flow shall be sampled continuously (daily) by totalizing meter consistent with the previous permit. The technology based monitoring frequencies are consistent with the NMIP.

Water quality-based pollutant monitoring frequency for FCB and *E. coli* shall be sampled once a week using grab samples, which is consistent with the current permit and the NMIP. The draft permit proposes Mercury be sampled one per week using grab samples. The current permit requires TRC (when chlorine is used) and pH to be sampled daily and once per week,

respectively. The draft permit proposes that TRC (when chlorine is used) and pH both be measured daily by instantaneous grab (field measurement), which is consistent with the NMIP. Regulations at 40 CFR Part 136 define instantaneous grab as being analyzed within 15-minutes of collection.

E. WHOLE EFFLUENT TOXICITY (WET) REQUIREMENTS

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. Analysis of the facility past WET data to determine RP was conducted and shown in the Appendix 3. The results show no reasonable potential. EPA concludes that based on the passed WET tests and the Reasonable Potential Analyzer, reasonable potential to cause toxicity does not exist. The draft permit will not propose any WET limits. However, continuation of WET monitoring is proposed in the draft permit. The WET test requirement in the previous permit will be continued in the draft permit. The permittee shall continue to conduct a 7-day chronic test using a once per quarter frequency for *Ceriodaphnia dubia* and a once per quarter frequency for the entire permit term for *Pimephales promelas*. If during the first year all four tests pass both the lethal and sub-lethal test endpoints then the permit may allow a frequency reduction of once per six-months for *Ceriodaphnia dubia* only. Any failure shall re-establish all tests for the *Ceriodaphnia dubia* test species to once per three-month for the remainder of the permit. The *Ceriodaphnia dubia* test species shall resume monitoring at a once per quarter frequency on the last day of the permit.

The critical condition is 100%. The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 1 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. This test would also demonstrate that the downstream Rio Pueblo de Taos is also being protected from WET.

The permittee shall conduct separate whole effluent toxicity tests in accordance with the Table 5.

Table 5

WHOLE EFFLUENT TOXICITY (7-day Static renewal) 1/	NOEC	MEASUREMENT FREQUENCY	SAMPLE TYPE
Pimephales promelas	Report	Once/Quarter	24-Hr Composite
Ceriodaphnia dubia	Report	Once/Quarter	24-Hr Composite

FOOTNOTE:
1/ Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

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 Permitting Section Chief 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 or not a sludge-only permit has been issued. Part IV of the draft permit contains sewage sludge permit requirements.

B. WASTE WATER 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) and the Pueblo of Taos (Section II of Pueblo of Taos WQS) both have 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 and Pueblo of Taos 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 requirements of the previous permit, including all final effluent limitations.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/southwest/es/EndangeredSpecies/lists/, three species in Taos County are listed as endangered (E) or threatened (T). Three species are birds and include the Southwestern Willow Flycatcher *(Empidonax traillii extimus)* (E), the Yellow-billed Cuckoo *(Coccyzus americanus)* (T), and the Mexican spotted owl (*Strix occidentalis lucida*) (T). Three mammalian species include Canada Lynx *(Lynx Canadensis)* (T), North American wolverine *(Gulo gulo luscus)* (T), and the black-footed ferret (*Mustela nigripes)* (E).

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.

Southwestern Willow Flycatchers habitat occurs in riparian areas along streams, rivers, and other wetlands where dense willow, cottonwood, buttonbush and arrowweed are present. The primary reason for decline is the reduction, degradation and elimination of the riparian habitat. Other reasons include brood parasitism by the brown-headed cowbird and stochastic events like fire and floods that destroy fragmented populations. The permit does not authorize activities that may cause destruction of the flycatcher habitat, and issuance of the permit will have no effect on this species.

The **Yellow-billed Cuckoo** 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.

Research of available material finds that the primary cause for the population decreases leading to threatened status for the **Mexican spotted owl** is destruction of habitat. No pollutants are identified which might affect species habitat or prey species and are not reviewed by the permitting process. Catastrophic fires and elimination of riparian habitat also were identified as threats to species habitat. The NPDES program regulates the discharge of pollutants and does not regulate forest management practices and agricultural practices, which contribute to catastrophic fires and elimination of riparian habitat, and thus, species habitat. The issuance of this permit is found to have no impact on the habitat of this species.

The **black-footed ferret** research finds that the species has diminished due to the eradication of prairie dogs, the primary source of the ferret's habitat and food. Main causes of the decline in the ferret population included habitat conversion for farming; efforts to eliminate prairie dogs, which competed with livestock for available prairie forage; and sylvatic plague, a disease that wiped out large numbers of prairie dogs and has also killed ferrets. Reintroduced black-footed ferrets have been designated as "non-essential experimental" populations under the Endangered Species Act. This designation allows, Federal, State, and Tribal resource managers, and private citizens more flexibility in managing new populations. The "non-essential, experimental" designation does not limit land uses such as forest management, agricultural practices, sport hunting, and non-consumptive outdoors recreation. The NPDES program regulates discharge of pollutants and does not regulate forest management practices and agricultural practices. Issuance of this permit will have no effect on the Black-footed Ferret food source or habitat.

The **North American wolverine** (*Gulo gulo luscus*) is the largest terrestrial member of the family Mustelidae. It resembles a small bear with a bushy tail. It has a round, broad head; short, rounded ears; and small eyes. In North America, wolverines occur within a wide variety of

alpine, boreal, and arctic habitats, including boreal forests, tundra, and western mountains throughout Alaska and Canada. The southern portion of the species' range extends into the contiguous United States, including high-elevation alpine portions of Washington, Idaho, Montana, Wyoming, California, and Colorado. Climate changes and human disturbance in the contiguous United States has likely resulted in the loss of some wolverine habitat, although this loss has not yet been quantified. Potential sources of human disturbance to wolverines include winter and summer recreation, housing and industrial development, road corridors, and extractive industry such as logging or mining. The permit does not authorize activities that may cause destruction of the wolverine habitat, and issuance of the permit will have no effect on this species.

The **Canada Lynx** (*Lynx canadensis*) 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 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 or Pueblo of Taos adopt 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.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. 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.

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 March 17, 2017.

Supplemental information provided via email on June 23, 2017 and January 5, 2018.

B. 40 CFR CITATIONS

Citations to 40 CFR as of March 25, 2011.

Sections 122, 124, 125, 133, 136

C. STATE WATER QUALITY REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, effective March 2, 2017.

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) List for Assessed Stream and River Reaches, 2014-2016.

E. PUEBLO OF TAOS REFERENCES

Pueblo of Taos Water Quality Standards, enacted August 13, 2002.

F. OTHER

Compliance Evaluation Inspection of the Town of Taos Wastewater Treatment Plant NPDES Permit Number NM0024066, June 26, 2017.

Appendix 1

	CALCULATIONS OF NEW MEXICO WATER QUALITY-BASED EFFLUENT LIMITATIONS		
NMAC 20.6.4.	(EPA approved site-specific criteria for aluminum, cadmium, and zinc on April 30, 2012)		
Calculations Specifications:	Excel **Revised as of July 10, 2012**		
Prepared By:	Quang Nguyen		
STEP 1:	REFERENCE IMPLEMENTATION PROCEDURES	**Appendix 1**	
	INPUT FACILITY AND RECEIVING STREAM DATA		
	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		Town of Taos	
NPDES Permit No.		NM0024066	
Outfall No.(s)		1	
Plant Effluent Flow (MGD)		2	For industrial and federal facility, use the highest monthly average flow
Plant Effluent Flow (cfs)		3.1	for the past 24 months. For POTWs, use the design flow.
RECEIVING STREAM		DATA INPUT	
Receiving Stream Name		Unnamed Arroyo	
Basin Name		Rio Grande Basin	
Waterbody Segment Code No.		20.6.4.99	
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)	(MUST enter "1" for 2005 Standards)	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)		22.8	For intermittent stream, enter effluent TSS
Receiving Stream Hardness (mg/l as CaCOs)	RANGE: 0 - 400	120.46	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)		0.001	Enter harmonic mean or modified harmonic mean flow data or 0.001 if no data is available
Avg. Receiving Water Temperature (C)		12.01	
pH (Avg), Receiving Stream		8.51	
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		480000	-0.73	48972.10805	0.472463847	0	480000	-0.73	48972.10805	0.472463847	0
Chromium III		3360000	-0.93	183425.5668	0.192971852	0	2170000	-0.27	932861.8338	0.04490497	0
Copper	4.05	1040000	-0.74	102839.8779	0.298976077	1.21085311	2850000	-0.9	170884.8249	0.204241107	0.8271765
Lead	0.75	2800000	-0.8	229514.5136	0.160438165	0.12032862	2040000	-0.53	388977.6951	0.101330557	0.0759979
Nickel		490000	-0.57	82446.68859	0.347248206	0	2210000	-0.76	205287.1616	0.176039376	0
Silver		2390000	-1.03	95438.80845	0.314860982	0	2390000	-1.03	95438.80845	0.314860982	0
Zinc	60	1250000	-0.7	140073.3838	0.238454444	14.3072666	3340000	-0.68	398428.8435	0.09916525	5.949915

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)	4413.881126	If Stream pH < 6.5, enter 750 in cell O113
	Chronic	e(1.3695[ln(hardness)]+0.9161)	1768.363206	If Stream pH < 6.5, enter 87 in cell P113
Cadmium (D)	Acute	e(0.8968[ln(hardness)]-3.5699)*CF1	1.93680814	CF1 = 1.136672 - 0.041838*ln(hardness)
	Chronic	e(0.7647[ln(hardness)]-4.2180)*CF2	0.517837842	CF2 = 1.101672 - 0.041838*ln(hardness)

										Dissolved							
										WQC (ug/l)							
Chromium III (D)			Acute			0.316 e(0.819[ln(hardness)]+3.7256)				663.5977515							
			Chronic			0.860 e(0.819[ln(hardness)]+0.6848)				86.32043373							
Copper (D)			Acute			0.960 e(0.9422[ln(hardness)]-1.700)				16.01550935							
			Chronic			0.960 e(0.8545[ln(hardness)]-1.702)				10.49982952							
Lead (D)			Acute			e(1.273[ln(hardness)]-1.46)*CF3				79.04360488		CF3 = 1.46203 - 0.145712*ln(hardness)					
			Chronic			e(1.273[ln(hardness)]-4.705)*CF4				3.080215804		CF4 = 1.46203 - 0.145712*ln(hardness)					
Manganese (D)			Acute			e(0.3331[ln(hardness)]+6.4676)				3176.667409							
			Chronic			e(0.3331[ln(hardness)]+5.8743)				1755.111983							
Nickel (D)			Acute			0.998 e(0.846[ln(hardness)]+2.255)				548.0972923							
			Chronic			0.997 e(0.846[ln(hardness)]+0.0584)				60.87668773							
Silver (D)			Acute			0.85 e(1.72[ln(hardness)]-6.59)				4.430655743							
Zinc (D)			Acute			0.978 e(0.9094[ln(hardness)]+0.9095)				189.5170039							
			Chronic			0.986 e(0.90947[ln(hardness)]+0.6235)				143.5898293							
						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			0	0	0	0	1E+100	5000	1E+100	4413.881126	1768.3632	1E+100	N/A	
Barium, dissolved		7440-39-3	100	140	54	115.02	115.02	115.02	115.028055	2000	1E+100	1E+100	1E+100	1E+100	1E+100	N/A	
Boron, dissolved		7440-42-8	100			0	0	0	0	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	3.9	2.6	5.538	5.538	5.538	5.53747178	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)						0	0	0	0	5	1E+100	30	1E+100	1E+100	1E+100	N/A	
Strontium (pCi/l)				0.205	0.207	0.44091	0.44091	0.44091	0.44083392	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)						0	0	0	0	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	
Nitrate as N (mg/l)						0	0	0	0	10	1E+100	1E+100	1E+100	1E+100	1E+100	N/A	
Nitrite + Nitrate (mg/l)				2.695	15	31.95	31.95	31.95	31.9405659	1E+100	1E+100	132	1E+100	1E+100	1E+100	N/A	
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		0	0	0	0	0	10	100	200	340	150	9	N/A	
Beryllium, dissolved		7440-41-7	0.5	1	2	4.26	4.26	4.26	4.25894873	4	1E+100	1E+100	1E+100	1E+100	1E+100	N/A	
Cadmium, dissolved		7440-43-9	1			0	0	0	0	5	10	50	1.93680814	0.5178378	1E+100	N/A	
Chromium (III), dissolved		16065-83-1	10			0	0	0	0	1E+100	1E+100	1E+100	663.5977515	86.320434	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	10	1.210853112	2.57911713	2.57911713	2.57911713	2.58151019	1300	200	500	16.01550935	10.49983	1E+100	N/A	
Lead, dissolved		7439-92-1	0.5	1	0.120328624	0.256299969	0.25629997	0.25629997	0.2565398	15	5000	100	79.04360488	3.0802158	1E+100	N/A	
Manganese, dissolved		7439-96-5				0	0	0	0	1E+100	1E+100	1E+100	3176.667409	1755.112	1E+100	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	
Mercury, dissolved	7439-97-6	0.005			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	0.2	0.0231	0.049203	0.049203	0.049203	0.04925163	2	1E+100	0.77	1E+100	1E+100	1E+100	N/A
Molybdenum, dissolved	7439-98-7				0	0	0	0	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	548.0972923	60.876688	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	4.430655743	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	10	14.30726665	30.47447796	30.474478	30.474478	30.4678754	10500	2000	25000	189.5170039	143.58983	26000	N/A
Cyanide, total recoverable	57-12-5	10			0	0	0	0	200	1E+100	5.2	22	5.2	140	N/A
Dioxin	1764-01-6	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	9	N/A
Acrylonitrile	107-13-0	20			0	0	0	0	0.65	1E+100	1E+100	1E+100	1E+100	2.5	N/A
Benzene	71-43-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	510	N/A
Bromoform	75-25-2	10			0	0	0	0	44	1E+100	1E+100	1E+100	1E+100	1400	N/A
Carbon Tetrachloride	56-23-5	2			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	16	N/A
Chlorobenzene	108-90-7	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	1600	N/A
Clorodibromomethane	124-48-1	10			0	0	0	0	4.2	1E+100	1E+100	1E+100	1E+100	130	N/A
Chloroform	67-66-3	50			0	0	0	0	57	1E+100	1E+100	1E+100	1E+100	4700	N/A
Dichlorobromomethane	75-27-4	10			0	0	0	0	5.6	1E+100	1E+100	1E+100	1E+100	170	N/A
1,2-Dichloroethane	107-06-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	370	N/A
1,1-Dichloroethylene	75-35-4	10			0	0	0	0	7	1E+100	1E+100	1E+100	1E+100	7100	N/A
1,2-Dichloropropane	78-87-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	150	N/A
1,3-Dichloropropylene	542-75-6	10			0	0	0	0	3.5	1E+100	1E+100	1E+100	1E+100	210	N/A
Ethylbenzene	100-41-4	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	2100	N/A
Methyl Bromide	74-83-9	50			0	0	0	0	49	1E+100	1E+100	1E+100	1E+100	1500	N/A
Methylene Chloride	75-09-2	20			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	5900	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	40	N/A
Tetrachloroethylene	127-18-4	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	33	N/A
Tolune	108-88-3	10			0	0	0	0	1000	1E+100	1E+100	1E+100	1E+100	15000	N/A
1,2-trans-Dichloroethylene	156-60-5	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	10000	N/A
1,1,1-Trichloroethane	71-55-6				0	0	0	0	200	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
1,1,2-Trichloroethane	79-00-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	160	N/A
Trichloroethylene	79-01-6	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	300	N/A
Vinyl Chloride	75-01-4	10			0	0	0	0	2	1E+100	1E+100	1E+100	1E+100	24	N/A
ACID COMPOUNDS															
2-Chlorophenol	95-57-8	10			0	0	0	0	175	1E+100	1E+100	1E+100	1E+100	150	N/A
2,4-Dichlorophenol	120-83-2	10			0	0	0	0	105	1E+100	1E+100	1E+100	1E+100	290	N/A
2,4-Dimethylphenol	105-67-9	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	850	N/A
4,6-Dinitro-o-Cresol	534-52-1	50			0	0	0	0	14	1E+100	1E+100	1E+100	1E+100	280	N/A

POLLUTANTS	CAS No.	MQL	Ambient Conc Ca (ug/l)	Effluent Conc. Ce (ug/l)	Acute Aquatic 2.13*Ce	Domestic Supply Cd,dom (ug/l)	Chronic Aquatic Cd (ug/l)	Human Health Cd,hh (ug/l)	Domestic Criteria ug/l	Irrigation Criteria ug/l	Wildlife Criteria ug/l	Aquatic Criteria ug/l	Aquatic Criteria ug/l	Health Criteria ug/l	TMDL
2,4-Dinitrophenol	51-28-5	50			0	0	0	0	70	1E+100	1E+100	1E+100	1E+100	5300	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			0	0	0	0	10500	1E+100	1E+100	1E+100	1E+100	860000	N/A
2,4,6-Trichlorophenol	88-06-2	10			0	0	0	0	32	1E+100	1E+100	1E+100	1E+100	24	N/A
BASE/NEUTRAL															
Acenaphthene	83-32-9	10			0	0	0	0	2100	1E+100	1E+100	1E+100	1E+100	990	N/A
Anthracene	120-12-7	10			0	0	0	0	10500	1E+100	1E+100	1E+100	1E+100	40000	N/A
Benzidine	92-87-5	50			0	0	0	0	0.0015	1E+100	1E+100	1E+100	1E+100	0.002	N/A
Benzo(a)anthracene	56-55-3	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Benzo(a)pyrene	50-32-8	5			0	0	0	0	0.2	1E+100	1E+100	1E+100	1E+100	0.18	N/A
3,4-Benzofluoranthene	205-99-2	10			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Benzo(k)fluoranthene	207-08-9	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Bis(2-chloroethyl)Ether	111-44-4	10			0	0	0	0	0.3	1E+100	1E+100	1E+100	1E+100	5.3	N/A
Bis(2-chloroisopropyl)Ether	108-60-1	10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	65000	N/A
Bis(2-ethylhexyl)Phthalate	117-81-7	10			0	0	0	0	6	1E+100	1E+100	1E+100	1E+100	22	N/A
Butyl Benzyl Phthalate	85-68-7	10			0	0	0	0	7000	1E+100	1E+100	1E+100	1E+100	1900	N/A
2-Chloronapthalene	91-58-7	10		0.74	1.5762	1.5762	1.5762	1.57569171	2800	1E+100	1E+100	1E+100	1E+100	1600	N/A
Chrysene	218-01-9	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Dibenzo(a,h)anthracene	53-70-3	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
1,2-Dichlorobenzene	95-50-1	10			0	0	0	0	600	1E+100	1E+100	1E+100	1E+100	1300	N/A
1,3-Dichlorobenzene	541-73-1	10			0	0	0	0	469	1E+100	1E+100	1E+100	1E+100	960	N/A
1,4-Dichlorobenzene	106-46-7	10			0	0	0	0	75	1E+100	1E+100	1E+100	1E+100	190	N/A
3,3'-Dichlorobenzidine	91-94-1	5			0	0	0	0	0.78	1E+100	1E+100	1E+100	1E+100	0.28	N/A
Diethyl Phthalate	84-66-2	10			0	0	0	0	28000	1E+100	1E+100	1E+100	1E+100	44000	N/A
Dimethyl Phthalate	131-11-3	10			0	0	0	0	350000	1E+100	1E+100	1E+100	1E+100	1100000	N/A
Di-n-Butyl Phthalate	84-74-2	10			0	0	0	0	3500	1E+100	1E+100	1E+100	1E+100	4500	N/A
2,4-Dinitrotoluene	121-14-2	10			0	0	0	0	1.1	1E+100	1E+100	1E+100	1E+100	34	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	140	N/A
Fluorene	86-73-7	10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	5300	N/A
Hexachlorobenzene	118-74-1	5			0	0	0	0	1	1E+100	1E+100	1E+100	1E+100	0.0029	N/A
Hexachlorobutadiene	87-68-3	10			0	0	0	0	4.5	1E+100	1E+100	1E+100	1E+100	180	N/A
Hexachlorocyclopentadiene	77-47-4	10			0	0	0	0	50	1E+100	1E+100	1E+100	1E+100	1100	N/A
Hexachloroethane	67-72-1	20			0	0	0	0	25	1E+100	1E+100	1E+100	1E+100	33	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	0.18	N/A
Isophorone	78-59-1	10			0	0	0	0	368	1E+100	1E+100	1E+100	1E+100	9600	N/A
Nitrobenzene	98-95-3	10			0	0	0	0	18	1E+100	1E+100	1E+100	1E+100	690	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
Nonylphenol	84852-15-3				0	0	0	0	1E+100	1E+100	1E+100	28	6.6	1E+100	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	70	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	0.0005	N/A
Alpha-BHC	319-84-6	0.05			0	0	0	0	0.056	1E+100	1E+100	1E+100	1E+100	0.049	N/A
Beta-BHC	319-85-7	0.05			0	0	0	0	0.091	1E+100	1E+100	1E+100	1E+100	0.17	N/A
Gamma-BHC	58-89-9	0.05			0	0	0	0	0.2	1E+100	1E+100	0.95	1E+100	1.8	N/A
Chlordane	57-74-9	0.2			0	0	0	0	2	1E+100	1E+100	2.4	0.0043	0.0081	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	0.0022	N/A
Dieldrin	60-57-1	0.02			0	0	0	0	0.022	1E+100	1E+100	0.24	0.056	0.00054	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	89	N/A
Beta-Endosulfan	33213-65-9	0.02			0	0	0	0	62	1E+100	1E+100	0.22	0.056	89	N/A
Endosulfan sulfate	1031-7-8	0.1			0	0	0	0	62	1E+100	1E+100	1E+100	1E+100	89	N/A
Endrin	72-20-8	0.02			0	0	0	0	2	1E+100	1E+100	0.086	0.036	0.06	N/A
Endrin Aldehyde	7421-93-4	0.1			0	0	0	0	10.5	1E+100	1E+100	1E+100	1E+100	0.3	N/A
Heptachlor	76-44-8	0.01			0	0	0	0	0.4	1E+100	1E+100	0.52	0.0038	0.00079	N/A
Heptachlor Epoixde	1024-57-3	0.01			0	0	0	0	0.2	1E+100	1E+100	0.52	0.0038	0.00039	N/A
PCBs	1336-36-3	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	3	1E+100	1E+100	0.73	0.0002	0.0028	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
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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, 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
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DIOXIN														0
2,3,7,8-TCDD	1764-01-6	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

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
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
1,1,2,2-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
4,6-Dinitro-o-Cresol	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
2,4,6-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
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-chloroisopropyl)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
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
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
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
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
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
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
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	1336-36-3	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

Appendix 2

	CALCULATIONS OF PUEBLO OF TAOS WATER QUALITY-BASED EFFLUENT LIMITATIONS		
NMAC 20.6.4.	(EPA approved site-specific criteria for aluminum, cadmium, and zinc on April 30, 2012)		
Calculations Specifications:	Excel **Revised as of July 10, 2012**		
Prepared By:	Quang Nguyen		
STEP 1:	REFERENCE IMPLEMENTATION PROCEDURES	**Appendix 2**	
	INPUT FACILITY AND RECEIVING STREAM DATA		
	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		Town of Taos	
NPDES Permit No.		NM0024066	
Outfall No.(s)		1	
Plant Effluent Flow (MGD)		2	For industrial and federal facility, use the highest monthly average flow
Plant Effluent Flow (cfs)		3.1	for the past 24 months. For POTWs, use the design flow.
RECEIVING STREAM		DATA INPUT	
Receiving Stream Name		Rio Pueblo De Taos	
Basin Name		Rio Grande Basin	
Waterbody Segment Code No.		Rio Pueblo, below Los Crodovas	
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) (MUST enter "1" for 2005 Standards)		1	
Are chronic aquatic life criteria considered (1= yes, 0=no)		1	
Are domestic water supply criteria considered (1= yes, 0=no)		1	
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)		22.8	For intermittent stream, enter effluent TSS
Receiving Stream Hardness (mg/l as CaCOs)	RANGE: 0 - 400	120.46	For intermittent stream, enter effluent Hardness (If no data, 20 mg/l is used)
Receiving Stream Critical Low Flow (4Q3) (cfs)		7.39	Enter "0" for intermittent stream and lake.
Receiving Stream Harmonic Mean Flow (cfs)		9.37	Enter harmonic mean or modified harmonic mean flow data or 0.001 if no data is available
Avg. Receiving Water Temperature (C)		12.01	
pH (Avg), Receiving Stream		8.51	
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		7.39	

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	0	480000	-0.73	48972.10805	0.472463847	0	480000	-0.73	48972.10805	0.472463847	0
Chromium III	0	3360000	-0.93	183425.5668	0.192971852	0	2170000	-0.27	932861.8338	0.04490497	0
Copper	4.05	1040000	-0.74	102839.8779	0.298976077	1.21085311	2850000	-0.9	170884.8249	0.204241107	0.8271765
Lead	0.75	2800000	-0.8	229514.5136	0.160438165	0.12032862	2040000	-0.53	388977.6951	0.101330557	0.0759979
Nickel	0	490000	-0.57	82446.68859	0.347248206	0	2210000	-0.76	205287.1616	0.176039376	0
Silver	0	2390000	-1.03	95438.80845	0.314860982	0	2390000	-1.03	95438.80845	0.314860982	0
Zinc	60	1250000	-0.7	140073.3838	0.238454444	14.3072666	3340000	-0.68	398428.8435	0.09916525	5.949915

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)	4413.881126	If Stream pH < 6.5, enter 750 in cell O113
	Chronic	e(1.3695[ln(hardness)]+0.9161)	1768.363206	If Stream pH < 6.5, enter 87 in cell P113
Cadmium (D)	Acute	e(1.128[ln(hardness)]-3.6867)*CF1	1.93680814	CF1 = 1.136672 - 0.041838*ln(hardness)
	Chronic	e(0.7852[ln(hardness)]-2.715)*CF2	0.517837842	CF2 = 1.101672 - 0.041838*ln(hardness)

										Dissolved						
										WQC (ug/l)						
Chromium III (D)			Acute			e(0.819[ln(hardness)]+2.5736)				663.5977515						
			Chronic			e(0.819[ln(hardness)]+0.534)				86.32043373						
Copper (D)			Acute			e(0.9422[ln(hardness)]-1.7408)				16.01550935						
			Chronic			e(0.8545[ln(hardness)]-1.7428)				10.49982952						
Lead (D)			Acute			e(1.273[ln(hardness)]-1.46)*CF3				79.04360488		CF3 = 1.46203 - 0.145712*ln(hardness)				
			Chronic			e(1.273[ln(hardness)]-4.705)*CF4				3.080215804		CF4 = 1.46203 - 0.145712*ln(hardness)				
Manganese (D)			Acute			e(0.3331[ln(hardness)]+6.4676)				3176.667409						
			Chronic			e(0.3331[ln(hardness)]+5.8743)				1755.111983						
Nickel (D)			Acute			e(0.846[ln(hardness)]+2.253)				548.0972923						
			Chronic			e(0.846[ln(hardness)]+0.0554)				60.87668773						
Silver (D)			Acute			e(1.72[ln(hardness)]-6.6825)				4.430655743						
Zinc (D)			Acute			e(0.8473[ln(hardness)]+0.8618)				189.5170039						
			Chronic			e(0.8473[ln(hardness)]+0.8699)				143.5898293						
						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			0	0	0	0	1E+100	5000	5000	4413.881126	1768.3632	1E+100	N/A
Barium, dissolved		7440-39-3	100	140	54	115.02	132.617922	132.617922	133.790056	2000	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Boron, dissolved		7440-42-8	100			0	0	0	0	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	3.9	2.6	5.538	4.38406101	4.38406101	4.30720128	20	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)						0	0	0	0	5	1E+100	30	1E+100	1E+100	1E+100	N/A
Strontium (pCi/l)				0.205	0.207	0.44091	0.27471602	0.27471602	0.26364643	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)						0	0	0	0	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
Nitrate as N (mg/l)						0	0	0	0	10	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
Nitrite + Nitrate (mg/l)				2.695	15	31.95	11.3404242	11.3404242	9.96769447	1E+100	1E+100	132	1E+100	1E+100	1E+100	N/A
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		0	0	#VALUE!	#VALUE!	#VALUE!	10	100	200	340	150	9	Need TMDL
Beryllium, dissolved		7440-41-7	0.5	1	2	4.26	1.96339371	1.96339371	1.81042502	4	1E+100	1E+100	130	1E+100	1E+100	N/A
Cadmium, dissolved		7440-43-9	1		0	0	#VALUE!	#VALUE!	#VALUE!	5	10	50	1.93680814	0.5178378	1E+100	Need TMDL
Chromium (III), dissolved		16065-83-1	10		0	0	#VALUE!	#VALUE!	#VALUE!	1E+100	1E+100	1E+100	663.5977515	86.320434	1E+100	Need TMDL
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	10	1.210853112	2.57911713	7.80698409	7.80698409	8.15519351	1300	200	500	16.01550935	10.49983	1E+100	N/A
Lead, dissolved		7439-92-1	0.5	1	0.120328624	0.256299969	0.78022211	0.78022211	0.81511868	50	5000	100	79.04360488	3.0802158	1E+100	N/A
Manganese, dissolved		7439-96-5				0	0	0	0	1E+100	1E+100	1E+100	3176.667409	1755.112	1E+100	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	
Mercury, dissolved	7439-97-6	0.005			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	0.2	0.0231	0.049203	0.15543654	0.15543654	0.16251237	2	1E+100	0.77	2.4	1E+100	1E+100	N/A
Molybdenum, dissolved	7439-98-7				0	0	0	0	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	#VALUE!	#VALUE!	#VALUE!	100	1E+100	1E+100	548.0972923	60.876688	4600	Need TMDL
Selenium, dissolved (P)	7782-49-2	5		0	0	#VALUE!	#VALUE!	#VALUE!	50	130	50	1E+100	1E+100	4200	Need TMDL
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	2	20	5	1E+100	N/A
Silver, dissolved	7440-22-4	0.5		0	0	#VALUE!	#VALUE!	#VALUE!	1E+100	1E+100	1E+100	4.430655743	1E+100	1E+100	Need TMDL
Thalllium, dissolved (P)	7440-28-0	0.5			#VALUE!	#VALUE!	#VALUE!	#VALUE!	2	1E+100	1E+100	1E+100	1E+100	0.47	N/A
Zinc, dissolved	7440-66-6	20	10	14.30726665	30.47447796	16.0506084	16.0506084	15.0898863	5000	2000	25000	189.5170039	143.58983	26000	N/A
Cyanide, total recoverable	57-12-5	10		0	0	#VALUE!	#VALUE!	#VALUE!	200	1E+100	5.2	22	5.2	140	Need TMDL
Dioxin	1764-01-6	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	9	N/A
Acrylonitrile	107-13-0	20			0	0	0	0	0.65	1E+100	1E+100	1E+100	1E+100	2.5	N/A
Benzene	71-43-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	510	N/A
Bromoform	75-25-2	10			0	0	0	0	44	1E+100	1E+100	1E+100	1E+100	1400	N/A
Carbon Tetrachloride	56-23-5	2			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	16	N/A
Chlorobenzene	108-90-7	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	1600	N/A
Clorodibromomethane	124-48-1	10			0	0	0	0	4.2	1E+100	1E+100	1E+100	1E+100	130	N/A
Chloroform	67-66-3	50			#VALUE!	#VALUE!	#VALUE!	#VALUE!	57	1E+100	1E+100	1E+100	1E+100	4700	N/A
Dichlorobromomethane	75-27-4	10			#VALUE!	#VALUE!	#VALUE!	#VALUE!	5.6	1E+100	1E+100	1E+100	1E+100	170	N/A
1,2-Dichloroethane	107-06-2	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	370	N/A
1,1-Dichloroethylene	75-35-4	10			0	0	0	0	7	1E+100	1E+100	1E+100	1E+100	7100	N/A
1,2-Dichloropropane	78-87-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	150	N/A
1,3-Dichloropropylene	542-75-6	10			0	0	0	0	3.5	1E+100	1E+100	1E+100	1E+100	210	N/A
Ethylbenzene	100-41-4	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	2100	N/A
Methyl Bromide	74-83-9	50			0	0	0	0	49	1E+100	1E+100	1E+100	1E+100	1500	N/A
Methylene Chloride	75-09-2	20			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	5900	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	40	N/A
Tetrachloroethylene	127-18-4	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	33	N/A
Tolune	108-88-3	10			0	0	0	0	1000	1E+100	1E+100	1E+100	1E+100	15000	N/A
1,2-trans-Dichloroethylene	156-60-5	10			0	0	0	0	100	1E+100	1E+100	1E+100	1E+100	10000	N/A
1,1,1-Trichloroethane	71-55-6				0	0	0	0	200	1E+100	1E+100	1E+100	1E+100	1E+100	N/A
1,1,2-Trichloroethane	79-00-5	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	160	N/A
Trichloroethylene	79-01-6	10			0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	300	N/A
Vinyl Chloride	75-01-4	10			0	0	0	0	2	1E+100	1E+100	1E+100	1E+100	24	N/A
ACID COMPOUNDS															
2-Chlorophenol	95-57-8	10			0	0	0	0	175	1E+100	1E+100	1E+100	1E+100	150	N/A
2,4-Dichlorophenol	120-83-2	10			0	0	0	0	105	1E+100	1E+100	1E+100	1E+100	290	N/A
2,4-Dimethylphenol	105-67-9	10			0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	850	N/A
4,6-Dinitro-o-Cresol	534-52-1	50			0	0	0	0	14	1E+100	1E+100	1E+100	1E+100	280	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	
2,4-Dinitrophenol	51-28-5	50			0	0	0	0	70	1E+100	1E+100	1E+100	1E+100	5300	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			0	0	0	0	10500	1E+100	1E+100	1E+100	1E+100	860000	N/A
2,4,6-Trichlorophenol	88-06-2	10			#VALUE!	#VALUE!	#VALUE!	#VALUE!	32	1E+100	1E+100	1E+100	1E+100	24	N/A
BASE/NEUTRAL															
Acenaphthene	83-32-9	10			0	0	0	0	2100	1E+100	1E+100	1E+100	1E+100	990	N/A
Anthracene	120-12-7	10			0	0	0	0	10500	1E+100	1E+100	1E+100	1E+100	40000	N/A
Benzidine	92-87-5	50			0	0	0	0	0.0015	1E+100	1E+100	1E+100	1E+100	0.002	N/A
Benzo(a)anthracene	56-55-3	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Benzo(a)pyrene	50-32-8	5			0	0	0	0	0.2	1E+100	1E+100	1E+100	1E+100	0.18	N/A
3,4-Benzofluoranthene	205-99-2	10			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Benzo(k)fluoranthene	207-08-9	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Bis(2-chloroethyl)Ether	111-44-4	10			0	0	0	0	0.3	1E+100	1E+100	1E+100	1E+100	5.3	N/A
Bis(2-chloroisopropyl)Ether	108-60-1	10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	65000	N/A
Bis(2-ethylhexyl)Phthalate	117-81-7	10			#VALUE!	#VALUE!	#VALUE!	#VALUE!	6	1E+100	1E+100	1E+100	1E+100	22	N/A
Butyl Benzyl Phthalate	85-68-7	10			0	0	0	0	7000	1E+100	1E+100	1E+100	1E+100	1900	N/A
2-Chloronapthalene	91-58-7	10		0.74	1.5762	0.4657979	0.4657979	0.39183801	2800	1E+100	1E+100	1E+100	1E+100	1600	N/A
Chrysene	218-01-9	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
Dibenzo(a,h)anthracene	53-70-3	5			0	0	0	0	0.048	1E+100	1E+100	1E+100	1E+100	0.18	N/A
1,2-Dichlorobenzene	95-50-1	10			0	0	0	0	600	1E+100	1E+100	1E+100	1E+100	1300	N/A
1,3-Dichlorobenzene	541-73-1	10			0	0	0	0	469	1E+100	1E+100	1E+100	1E+100	960	N/A
1,4-Dichlorobenzene	106-46-7	10			0	0	0	0	75	1E+100	1E+100	1E+100	1E+100	190	N/A
3,3'-Dichlorobenzidine	91-94-1	5			0	0	0	0	0.78	1E+100	1E+100	1E+100	1E+100	0.28	N/A
Diethyl Phthalate	84-66-2	10			0	0	0	0	28000	1E+100	1E+100	1E+100	1E+100	44000	N/A
Dimethyl Phthalate	131-11-3	10			0	0	0	0	350000	1E+100	1E+100	1E+100	1E+100	1100000	N/A
Di-n-Butyl Phthalate	84-74-2	10			0	0	0	0	3500	1E+100	1E+100	1E+100	1E+100	4500	N/A
2,4-Dinitrotoluene	121-14-2	10			0	0	0	0	1.1	1E+100	1E+100	1E+100	1E+100	34	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	140	N/A
Fluorene	86-73-7	10			0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	5300	N/A
Hexachlorobenzene	118-74-1	5			0	0	0	0	1	1E+100	1E+100	1E+100	1E+100	0.0029	N/A
Hexachlorobutadiene	87-68-3	10			0	0	0	0	4.5	1E+100	1E+100	1E+100	1E+100	180	N/A
Hexachlorocyclopentadiene	77-47-4	10			0	0	0	0	50	1E+100	1E+100	1E+100	1E+100	1100	N/A
Hexachloroethane	67-72-1	20			0	0	0	0	25	1E+100	1E+100	1E+100	1E+100	33	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	0.18	N/A
Isophorone	78-59-1	10			0	0	0	0	368	1E+100	1E+100	1E+100	1E+100	9600	N/A
Nitrobenzene	98-95-3	10			0	0	0	0	18	1E+100	1E+100	1E+100	1E+100	690	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
Nonylphenol	84852-15-3				0	0	0	0	1E+100	1E+100	1E+100	28	6.6	1E+100	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	70	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	
PESTICIDES AND PCBS															
Aldrin	309-00-2	0.01			0	0	0	0	0.021	1E+100	1E+100	3	1E+100	0.0005	N/A
Alpha-BHC	319-84-6	0.05			0	0	0	0	0.056	1E+100	1E+100	1E+100	1E+100	0.049	N/A
Beta-BHC	319-85-7	0.05			0	0	0	0	0.091	1E+100	1E+100	1E+100	1E+100	0.17	N/A
Gamma-BHC	58-89-9	0.05			0	0	0	0	0.2	1E+100	1E+100	0.95	1E+100	1.8	N/A
Chlordane	57-74-9	0.2			0	0	0	0	2	1E+100	1E+100	2.4	0.0043	0.0081	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	0.0022	N/A
Dieldrin	60-57-1	0.02			0	0	0	0	0.022	1E+100	1E+100	0.24	0.056	0.00054	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	89	N/A
Beta-Endosulfan	33213-65-9	0.02			0	0	0	0	62	1E+100	1E+100	0.22	0.056	89	N/A
Endosulfan sulfate	1031-7-8	0.1			0	0	0	0	62	1E+100	1E+100	1E+100	1E+100	89	N/A
Endrin	72-20-8	0.02			0	0	0	0	2	1E+100	1E+100	0.086	0.036	0.06	N/A
Endrin Aldehyde	7421-93-4	0.1			0	0	0	0	10.5	1E+100	1E+100	1E+100	1E+100	0.3	N/A
Heptachlor	76-44-8	0.01			0	0	0	0	0.4	1E+100	1E+100	0.52	0.0038	0.00079	N/A
Heptachlor Epoixde	1024-57-3	0.01			0	0	0	0	0.2	1E+100	1E+100	0.52	0.0038	0.00039	N/A
PCBs	1336-36-3	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	3	1E+100	1E+100	0.73	0.0002	0.0028	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
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Chromium (III), dissolved	16065-83-1	01033	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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, 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
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	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Selenium, Total (P)	7782-49-2	01147	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Thalllium, Total (P)	7440-28-0	01059	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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	#VALUE!	#VALUE!	#VALUE!	N/A	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
DIOXIN														0
2,3,7,8-TCDD	1764-01-6	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

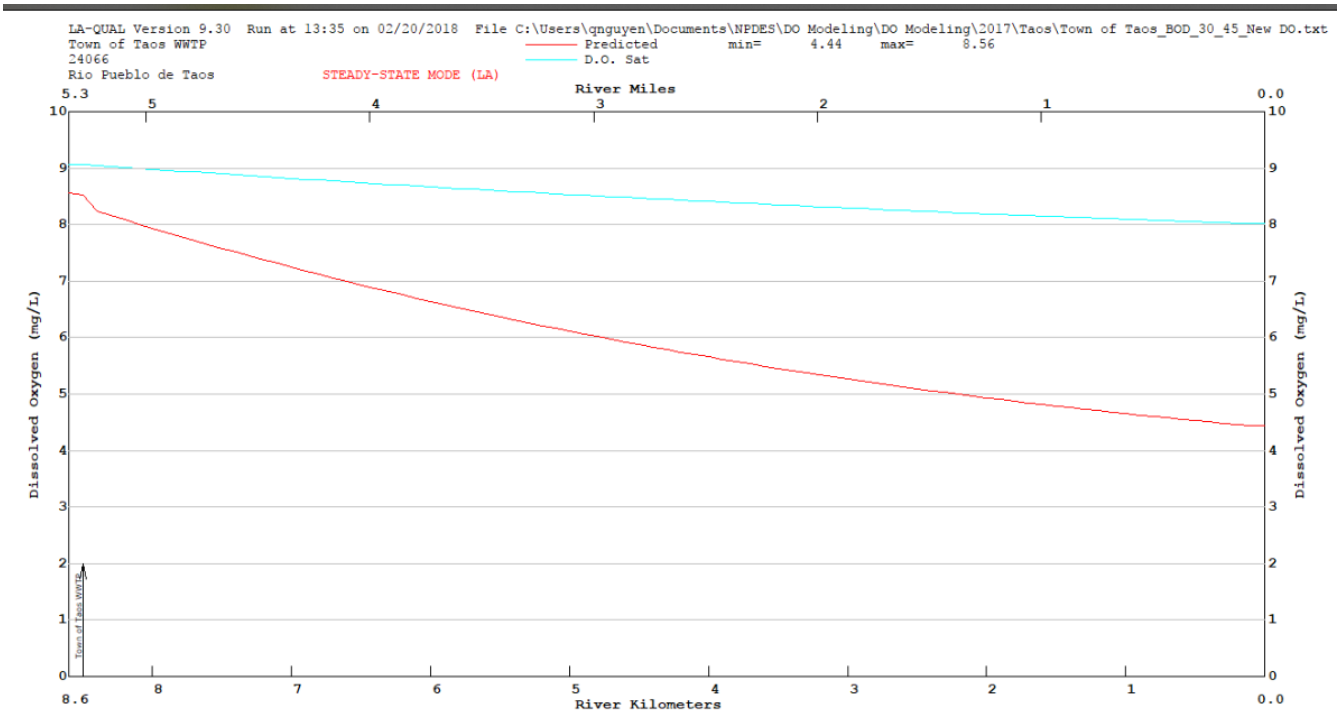
POLLUTANTS	CAS No.	STORET	Domestic Limits	Irrigation Limits	Livestock or Wildlife Limits	Acute Aquatic Limits	Chronic Aquatic Limits	Human Health Limits	Daily Max Conc ug/l	Monthly Avg Conc ug/l	Daily Max Total ug/l	Mon. Avg Total ug/l	Daily Max Load lb/day	Monthly Avg Load lb/day
Chlorobenzene	108-90-7	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	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Dichlorobromomethane	75-27-4	32101	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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
1,1,2,2-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
4,6-Dinitro-o-Cresol	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
2,4,6-Trichlorophenol	88-06-2	34621	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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-chloroisopropyl)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	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
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
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
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
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
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
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
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	1336-36-3	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

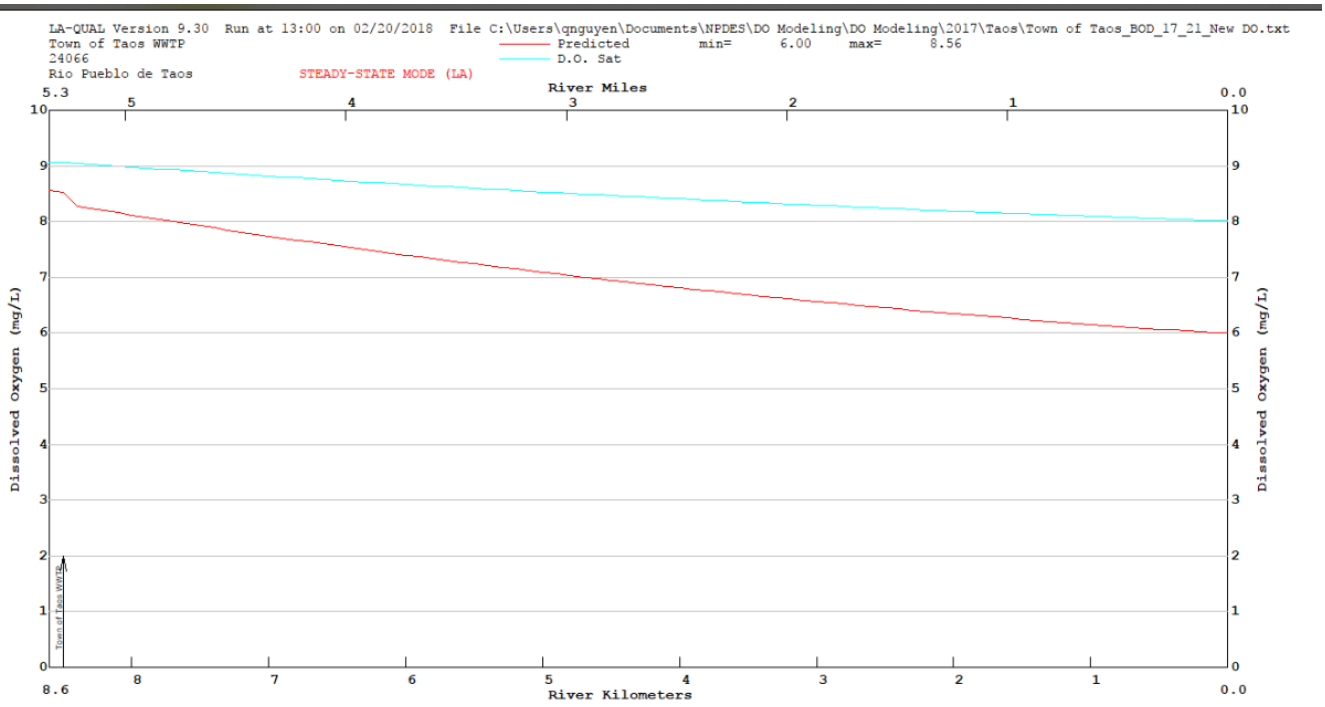
Appendix 3

Facility Name	Town of Taos							
NPDES Permit Number	NM0024066				Outfall Number			
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
Jun-13	100	100	1.00	1.00	100	100	1.00	1.00
Sep-13	100	100	1.00	1.00	100	100	1.00	1.00
Dec-13	100	100	1.00	1.00	100	100	1.00	1.00
Mar-14	100	100	1.00	1.00	100	100	1.00	1.00
Jun-14	100	100	1.00	1.00	100	100	1.00	1.00
Sep-14	100	100	1.00	1.00	100	100	1.00	1.00
Dec-14	100	100	1.00	1.00	100	100	1.00	1.00
Mar-15	100	100	1.00	1.00	100	100	1.00	1.00
Jun-15	100	100	1.00	1.00	100	100	1.00	1.00
Sep-15	100	100	1.00	1.00	100	100	1.00	1.00
Dec-15	100	100	1.00	1.00	100	100	1.00	1.00
Mar-16	100	100	1.00	1.00	100	100	1.00	1.00
Jun-16	100	100	1.00	1.00	100	100	1.00	1.00
Sep-16	100	100	1.00	1.00	100	100	1.00	1.00
Dec-16	100	100	1.00	1.00	100	100	1.00	1.00
	100	100	1.00	1.00	100	100	1.00	1.00
Count			15	15			15	15
Mean			1.000	1.000			1.000	1.000
Std. Dev.			0.000	0.000			0.000	0.000
CV			0.0	0			0	0
RPMF			#N/A	#N/A			#N/A	#N/A
		1	Reasonable Potential Acceptance Criteria					
Vertebrate Lethal		#N/A	#N/A					
			No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.					
Vertebrate Sublethal		#N/A	#N/A					
			No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.					
Invertebrate Lethal		#N/A	#N/A					
			No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.					
Invertebrate Sublethal		#N/A	#N/A					
			No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.					

Appendix 4


LA-QUAL Version 9.30 Run at 13:35 on 02/20/2018 File C:\Users\qnguyen\Documents\NPDES\DO Modeling\DO Modeling\2017\Taos\Town of Taos_BOD_30_45_New DO.txt
Town of Taos WWTP
24066
Rio Pueblo de Taos
STEADY-STATE MODE (LA)
Predicted min= 4.44 max= 8.56
D.O. Sat
River Miles
5.3
0.0
Dissolved Oxygen (mg/L)
River Kilometers
8.6
0.0
Town of Taos WWTP

Appendix 5


LA-QUAL Version 9.30 Run at 13:00 on 02/20/2018 File C:\Users\qnguyen\Documents\NPDES\DO Modeling\DO Modeling\2017\Taos\Town of Taos_BOD_17_21_New DO.txt
Town of Taos WWTP
24066
Rio Pueblo de Taos
STEADY-STATE MODE (LA)
Predicted min= 6.00 max= 8.56
D.O. Sat
River Miles
5.3
0.0
Dissolved Oxygen (mg/L)
River Kilometers
8.6
0.0