



REGION 6  
1445 ROSS AVENUE  
DALLAS, TEXAS 75202-2733

NPDES Permit No NM0020583

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**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

City of Farmington  
800 Municipal Drive  
Farmington, NM 87401-2663

is authorized to discharge to receiving waters named San Juan River in the San Juan Basin, Waterbody Segment Code No. 20.6.4.401, from a facility located at 1395 South Lake Street, in the City of Farmington, in San Juan County, New Mexico.

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

Outfall 001: Latitude 36° 43' 02" N, Longitude 108° 13' 15" W

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

This permit supersedes and replaces NPDES Permit No. NM0020583 issued September 24, 2010.

This permit shall become effective on

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

Issued on

Prepared by

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William K. Honker, P.E.  
Director  
Water Division (6WQ)

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Quang Nguyen  
Environmental Engineer  
Permitting Section (6WQ-PP)

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**PART I – REQUIREMENTS FOR NPDES PERMITS****SECTION A - LIMITATIONS AND MONITORING REQUIREMENTS****FINAL Effluent Limits – 6.67 MGD Design Flow**

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater to the San Juan River, in Segment Number 20.6.4.401, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Standard Units			
POLLUTANT	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6	9.0	Five/Week (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	lbs/day, unless noted			mg/l, unless noted			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	DAILY MAX	7-DAY AVG		
Flow	Report MGD	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	1669	N/A	2504	30	N/A	45	Five/Week (*1)	12-Hour Composite
BOD <sub>5</sub> Percent Removal (minimum)	≥ 85	***	***	***	***	***	1/Week	Calculation (*4)
Total Suspended Solids (TSS)	1669	N/A	2504	30	N/A	45	Five/Week (*1)	12-Hour Composite
TSS Percent Removal (minimum)	≥ 85	N/A	N/A	N/A	N/A	N/A	1/Week	Calculation (*4)
E. Coli Bacteria	31.9(*3)	31.9 (*3)	N/A	126 (*2)	235 (*2)	N/A	Five/Week (*1)	Grab
Total Residual Chlorine	N/A	N/A	N/A	N/A	19 ug/l	N/A	Daily	Instantaneous Grab (*5)
Total Dissolved Solids, Discharge (*6)	Report	Report	N/A	Report	Report	N/A	1/Week	12-Hour Composite
Total Dissolved Solids, Water Plant Intake (*7)	Report	Report	N/A	Report	Report	N/A	1/Week	12-Hour Composite

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	lbs/day, unless noted			mg/l, unless noted			MEASUREMENT FREQUENCY	SAMPLE TYPE
POLLUTANT	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	DAILY MAX	7-DAY AVG		
Total Dissolved Solids, Net Increase (*9)	27,664	Report	N/A	497 (*8)	Report	N/A	1/Week	12-Hour Composite

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (48 Hr. Static Renewal) (*10)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Report	Once/6 months (*10)	24-Hr Composite
Pimephales promelas	Report	Report	Once/year (*10)	24-Hr Composite

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**Footnotes:**

- \*1 Sampling on at least five different days.
- \*2 Colony forming units (cfu) per 100 ml or Most Probable Number (MPN).
- \*3 Billion ( $1.0 \times 10^9$ ) cfu/day. Loading limit calculated as follows:  $[\text{Flow in MGD} \times \text{cfu} / 100 \text{ ml in effluent} \times 3.79 \times 10^7] / 1.0 \times 10^9$ .
- \*4 Percent removal is calculated using the following equation:  $[(\text{average monthly influent concentration} - \text{average monthly effluent concentration}) \div \text{average monthly influent concentration}] \times 100$ .
- \*5 Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- \*6 Total dissolved solids measured at Outfall 001. Report the geometric mean value of the weekly values.
- \*7 Total dissolved solids shall be taken from the current Farmington Lake effluent sampling location for the 1<sup>st</sup> year of the permit term. As the new TDS sampling stations at the two drinking water treatment plants intake are online, total dissolved solids shall be taken from these new locations for the rest of the permit term. Report the geometric mean of the weekly values.
- \*8 For permit compliance purposes, the geometric mean of the weekly report values for the TDS taken from the current Farmington Lake effluent sampling location (1<sup>st</sup> year of the permit term ) and the two drinking water treatment plants intake sampling stations (the rest of the permit term) may be used to determine the limit.
- \*9 Net total dissolved solids calculated by taking the difference between Outfall 001 discharge and the current Farmington Lake effluent sampling location (1<sup>st</sup> year of the permit term ) and flow weighted average influent of the two drinking water treatment plants (the rest of the permit term).
- \*10 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.

**FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS**

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

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

**SECTION B - SCHEDULE OF COMPLIANCE**

The permittee shall design and construct TDS sampling locations at the intakes of the City's drinking water treatment plants within 18 months of the effective date of the permit. Samples taken in compliance with the monitoring requirements specified above shall commence as the new sampling stations construction is completed.

The permittee shall submit quarterly progress reports, to both EPA and NMED, in accordance with the following schedule. The requirement to submit quarterly progress reports shall expire 18 months from the permit effective date. No later than 14-days after the date compliance, the permittee shall submit a written final report both to EPA and the State, stating that compliance has been completed. If at any time during the 18 months compliance period the permittee determines that full compliance will not be met within the time allowed, a separate report shall be sent to both EPA and the State stating the explanation for this delay and proposed remedial actions.

**PROGRESS REPORT DATES**

January 1  
April 1  
July 1  
October 1

**SECTION C - MONITORING AND REPORTING (MAJOR DISCHARGERS)**

1. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.
2. All DMRs shall be electronically reported effective December 21, 2016 per 40 CFR 127.16. To submit electronically, access the NetDMR website at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and contact the [R6NetDMR@epa.gov](mailto:R6NetDMR@epa.gov) in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA. No. 3320-1

in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted monthly.

- a. Reporting periods shall end on the last day of each month.
  - b. The permittee is required to submit regular monthly reports no later than the 15<sup>th</sup> day of the month.
  - c. The annual sludge report required in Part IV of the permit is due on February 19 of each year and covers the previous calendar year from January 1 through December 31.
3. If any 30 day average, monthly average, 7 day average, weekly average, or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.
  4. Any 30 day average, monthly average, 7 day average, weekly average, or daily maximum value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.
  5. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted for five day Biochemical Oxygen Demand (BOD<sub>5</sub>) or for five day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), as applicable, where the permittee can demonstrate long term correlation of the method with BOD<sub>5</sub> or CBOD<sub>5</sub> values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.

#### **SECTION D - OVERFLOW REPORTING**

The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary).

Overflows that endanger health or the environment shall be orally reported to EPA at (214) 665-6595, and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows that

endanger health or the environment shall be provided to EPA and the NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

### **SECTION E - POLLUTION PREVENTION REQUIREMENTS**

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

- a. The influent loadings, flow and design capacity;
- b. The effluent quality and plant performance;
- c. The age and expected life of the wastewater treatment facility's equipment;
- d. Bypasses and overflows of the tributary sewerage system and treatment works;
- e. New developments at the facility;
- f. Operator certification and training plans and status;
- g. The financial status of the facility;
- h. Preventative maintenance programs and equipment conditions and;
- i. An overall evaluation of conditions at the facility.

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**PART II - OTHER CONDITIONS****A. MINIMUM QUANTIFICATION LEVEL (MQL) & SUFFICIENTLY SENSITIVE METHODS**

EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is “sufficiently sensitive” when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA-approved methods with a published ML at or below the effluent limit, if specified:

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4,6-Dinitro-O-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

#### **B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS**

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, and concurrently to NMED

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

TRC  
E. Coli Bacteria

### **C. PERMIT MODIFICATION AND REOPENER**

In accordance with 40 CFR Part 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, new State of New Mexico water quality standards or the Navajo Nation water quality standards are established and/or remanded.

In accordance with 40 CFR Part 122.62(s)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

### **D. WHOLE EFFLUENT TOXICITY TESTING (48 HOUR ACUTE NOEC FRESHWATER)**

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

#### **1. SCOPE AND METHODOLOGY**

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	23%
EFFLUENT DILUTION SERIES (%):	10%, 13%, 17%, 23%, 31%
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

*Daphnia pulex* acute static renewal 48 hour definitive toxicity test using EPA/821/R/02/012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

*Pimephales promelas* (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA/821/R/02/012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Lethal Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

## 2. PERSISTENT LETHALITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent). The purpose of additional tests (also referred to as 'retests' or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

### a. Part I Testing Frequency Other Than Monthly

i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The two additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this

section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

ii. If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

iii. The provisions of Item 2.a are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the TRE requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

### 3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

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

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

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

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the *Daphnia pulex* survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R/02/012 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

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

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

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

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

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

(D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

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

ii. The permittee shall collect a second composite sample for use during the 24 hour renewal of each dilution concentration for both tests. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled between 4 and 6 degrees Centigrade during collection, shipping, and/or storage.

iii. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

#### **4. REPORTING**

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA/821/R/02/012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall

retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

c. The permittee shall report the following results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. *Pimephales promelas* (Fathead minnow)

(A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.

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

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

ii. *Daphnia pulex*

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

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

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

d. Enter the following codes on the DMR for retests only:

i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less

than the critical dilution; otherwise, enter a "0."

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

## 5. TOXICITY REDUCTION EVALUATION (TRE)

a. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA 600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487 4650, or by writing:

U.S. Department of Commerce  
National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161

ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

## 6. MONITORING FREQUENCY REDUCTION

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test species, with no lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Daphnia pulex*).

b. **CERTIFICATION** - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.

c. **SURVIVAL FAILURES** - If any test fails the survival endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

d. This monitoring frequency reduction applies only until the expiration date of this

permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

#### **E. COLORADO RIVER SALINITY CONTROL PROGRAM - BEST MANAGEMENT PRACTICES**

The City of Farmington shall maintain the formulated two-part best management practice to assist in achieving and maintaining the discharge concentration of total dissolved solids effluent from the POTW to no more than a 497 mg/l net increase over the drinking water concentration.

#### **F. CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS**

1. The permittee shall operate an industrial pretreatment program in accordance with Section 402(b)(8) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403) and the approved POTW pretreatment program submitted by the permittee. The pretreatment program was approved on 12/17/93 and modified on 08/10/2012. The permittee shall submit all necessary proposed modifications to the EPA within 6 months of the effective date of this permit. The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user information shall be updated at a frequency adequate to ensure that all IUs are properly characterized at all times;
- b. The frequency and nature of industrial user compliance monitoring activities by the permittee shall be commensurate with the character, consistency and volume of waste. The permittee must inspect and sample the effluent from each Significant Industrial User in accordance with 40 CFR 403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities;
- c. The permittee shall enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements;
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3(v), this control shall be achieved through individual or general control mechanisms, in accordance with

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40 CFR 403.8(f)(1)(iii). Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- i. Statement of duration (not to exceed five years);
  - ii. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
  - iii. Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
  - iv. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored (including the process for seeking a waiver for a pollutant neither present nor expected to be present in the Discharge on accordance with § 403.12(e)(2), or a 12specific waiver for a pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards in 40 CFR 403, categorical Pretreatment Standards, local limits, and State and local law;
  - v. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
  - vi. Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. The permittee shall evaluate, whether each Significant Industrial User needs a plan or other action to control slug discharges, in accordance with 40 CFR 403.8(f)(2)(vi);
- f. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program; and,
- g. The approved program shall not be modified by the permittee without the prior approval of the Agency.

2. The permittee shall establish and enforce specific limits to implement the provisions of 40 CFR Parts 403.5(a) and (b), as required by 40 CFR Part 403.5(c). POTWs may develop Best Management Practices (BMPs) to implement paragraphs 40 CFR 403.5 (c)(1) and (c)(2). Such BMPs shall be considered local limits and Pretreatment Standards. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

The permittee shall, within sixty (60) days of the effective date of this permit, (1) submit a **WRITTEN CERTIFICATION** that a technical evaluation has been demonstrated that the existing technically based local limits (TBLL) are based on current state water quality standards and are adequate to prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination, **OR** (2) submit a **WRITTEN NOTIFICATION** that a technical evaluation revising the current TBLL and a draft sewer use ordinance which incorporates such revisions will be submitted within 12 months of the effective date of this permit.

All specific prohibitions or limits developed under this requirement are deemed to be conditions of this permit. The specific prohibitions set out in 40 CFR Part 403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR 122 Appendix D (NPDES Application Testing Requirements) Table II at least once/year and the toxic pollutants in Table III at least once/3 months. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least once/3 months on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24 hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR 136. The effluent samples shall be analyzed to a level at least as low as required in (6) below. Where composite samples are inappropriate, due to sampling, holding time, or analytical constraints, at least 4 grab samples, taken at equal intervals over a representative 24 hour period, shall be taken.

4. The permittee shall prepare annually a list of Industrial Users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements. For the purposes of this Part, significant noncompliance shall be determined based upon the more stringent of either criteria established at 40 CFR Part 403.8(f)(2)(viii) [rev. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW during the month of December.

In addition, during the month of December the permittee shall submit an updated pretreatment program status report to EPA and the State containing the following information:

a. An updated list of all significant industrial users and identify which Industrial Users are Non-Significant Categorical Industrial Users (NSCIUs) or Middle Tier CIUs. The list must also identify:

- Industrial Users subject to categorical Pretreatment Standards that are subject to reduced monitoring and reporting requirements under 40 CFR 403.12(e)(2) & (3);
- Industrial Users subject to the following categorical Pretreatment Standards [Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) (40 CFR part 414), Petroleum Refining (40 CFR part 419), and Pesticide Chemicals (40 CFR part 455)] and for which the Control Authority has chosen to use the concentration-based standards rather than converting them to flow-based mass standards as allowed at 40 CFR 403.6(c)(6);
- Categorical Industrial Users subject to concentration-based standards for which the Control Authority has chosen to convert the concentration-based standards to equivalent mass limits, as allowed at 40 CFR 403.6(c)(5);
- General Control Mechanisms used for similar groups of SIUs along with the substantially similar types of operations and the types of wastes that are the same, for each separate General Control Mechanism, as allowed at 40 CFR 403.8(f)(1)(iii); and,
- Best Management Practices or Pollution Prevention alternatives required by a categorical Pretreatment Standard or as a local limit requirement that are

implemented and documentation to demonstrate compliance, as required at 40 CFR 403.12 (b), (e) and (h).

For each industrial user listed the following information shall be included:

- i. Standard Industrial Classification (SIC) or NAISC code and categorical determination;
- ii. Control document status. Whether the user has an effective control document, and the date such document was last issued, reissued, or modified, (indicate which industrial users were added to the system (or newly identified) within the previous 12 months);
- iii. A summary of all monitoring activities performed within the previous 12 months. The following information shall be reported:
  - \* total number of inspections performed;
  - \* total number of sampling visits made;
- iv. Status of compliance with both effluent limitations and reporting requirements. Compliance status shall be defined as follows:
  - \* Compliant (C) - no violations during the previous 12 month period;
  - \* Non-compliant (NC) - one or more violations during the previous 12 months but does not meet the criteria for significantly noncompliant industrial users;
  - \* Significant Noncompliance (SN) - in accordance with requirements described in d. above; and
- v. For significantly noncompliant industrial users, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If ANY

industrial user was on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained;

b. A list of all significant industrial users whose authorization to discharge was terminated or revoked during the preceding 12 month period and the reason for termination;

c. A report on any interference, pass through, upset or POTW permit violations known or suspected to be caused by industrial contributors and actions taken by the permittee in response;

d. The results of all influent and effluent analyses performed pursuant to Part II(A)(1)(c) above;

e. A copy of the newspaper publication of the significantly noncompliant industrial users giving the name of the newspaper and the date published;

f. The information requested may be submitted in tabular form as per the example tables provided for your convenience; and

g. The monthly average water quality based effluent concentration necessary to meet the state water quality standards as developed in the approved technically based local limits.

5. The permittee shall provide adequate notice of the following:

a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on (i) the quality and quantity of effluent to be introduced into the treatment works, and (ii) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

6. All effluent monitoring conducted in accordance with Part (II) (A) (1) (c) above shall meet the Minimum Quantification Levels (MQLs) shown in MQL's at Appendix A of Part II below.



FOOTNOTES:

\*T Total metal.

\1 It is advised that the influent and effluent samples are collected considering flow detention time through each plant. Analytical MQLs should be used so that the data can also be used for Local Limits assessment and NPDES application purposes.

\2 Maximum Allowable Headworks Loading limitation in ug/l. Only complete for pollutants that have approved Technically Based Local Limits.

\3 Daily average effluent limit in the NPDES permit OR the applicable state Water Quality Standard calculated to an equivalent permit effluent limit.

\4 Record names of any pollutants [40 CFR 122, Appendix D, Table II and/or Table V] detected and the quantity in which they were detected.

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