REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

NPDES Permit No NM0030112

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"),

New Mexico Department of Game & Fish (NMDGF)
Seven Springs State Fish Hatchery
1 Wildlife Way
Santa Fe, NM 87507

is authorized to discharge from a facility located at 346 Forest Road 314, village of Jemez Springs, Sandoval County, New Mexico, to receiving water named Rio Cebolla, thence to Jemez River, thence to Rio Grande, in Segment No. 20.6.4.108 of Rio Grande Basin.

Outfall 001 - Latitude 35º 55' 35.62" North, Longitude 106º 42' 13.78" West
Outfall 002 - Latitude 35º 55' 35.42" North, Longitude 106º 42' 13.07" West

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

This permit is prepared by Jim Afghani, Environmental Engineer, Permitting Section (6WQ-PP). It supersedes and replaces NPDES Permit No. NM0030112 with an effective date of April 1, 2019.

This permit shall become effective on December 1, 2024

This permit and the authorization to discharge shall expire at midnight, November 30, 2029

Issued on October 31, 2024

TROY HILL Digitally signed by TROY HILL Date: 2024.10.31 10:24:40 -05'00'

Troy C. Hill, P.E.
Director
Water Division

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
FDA	United State Food and Drug Administration
FWS	United States Fish and Wildlife Service
mg/L	Milligrams per liter
ug/L	Micrograms per liter
lbs.	Pounds
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
PFAS	Per- and Polyfluoroalkyl Substances
POTW	Publicly owned treatment works
RP	Reasonable potential
SS	Settleable solids
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USGS	United States Geological Service
WLA	Waste Load Allocation
WET	Whole effluent toxicity
WOTUS	Waters of the United States
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plan

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

PART I – REQUIREMENTS FOR NPDES PERMITS

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. FINAL EFFLUENT LIMITS BASED ON THE HIGHEST MONTHLY AVERAGE FLOW OF 0.77 MGD – OUTFALL 001

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 hatchery wastewater to Rio Cebolla from overflow water flows through Outfall 001 thence to the kids fishing pond. Such discharges shall be limited and monitored by the permittee and reported as specified below:

POLLUTANT	MINIMUM	MAXIMUM	FREQUENCY	TYPE
pH	6.6 s.u.	8.8 s.u.	2/Month	Grab

POLLUTANT	30-DAY AVERAGE	DAILY MAXIMUM	30-DAY AVERAGE	DAILY MAXIMUM	FREQUENCY	TYPE
Flow	Report MGD	Report MGD	***	***	Daily	Measured over weir
TSS	64 lbs./day	96 lbs./day	10 mg/L	15 mg/L	2/Month[*1]	Grab
SS	NA	NA	0.1 ml/L	0.5 ml/L	2/Month[*1]	Grab
Aluminum[*2, *3, *4] (Total Recoverable)	NA	Report	NA	Report	1/Quarter[*1]	Grab

POLLUTANT	DAILY AVG	DAILY MAX	DAILY AVG	DAILY MAX	FREQUENCY	TYPE
Aluminum, dissolved	NA	NA	NA	Report	One/Term[*5]	Grab
Ammonia as N, total	NA	NA	NA	Report	One/Term[*5]	Grab
3-Methyl-4-chlorophenol	NA	NA	NA	Report	One/Term[*5]	Grab
Dichlorodiphenyltrichloroethane (DDT)	NA	NA	NA	Report	One/Term[*5]	Grab
Dichlorodiphenyldichloroethylene (DDE)	NA	NA	NA	Report	One/Term[*5]	Grab
Dichlorodiphenyldichloroethane (DDD)	NA	NA	NA	Report	One/Term[*5]	Grab
Bis(chloromethyl) ether	NA	NA	NA	Report	One/Term[*5]	Grab
Gamma-BHC (Lindane)	NA	NA	NA	Report	One/Term[*5]	Grab
2,4-Dichlorophenoxyacetic acid	NA	NA	NA	Report	One/Term[*5]	Grab
Hexachlorocyclohexane (HCH)	NA	NA	NA	Report	One/Term[*5]	Grab
Nitrosamines	NA	NA	NA	Report	One/Term[*5]	Grab

POLLUTANT	DAILY AVG	DAILY MAX	DAILY AVG	DAILY MAX	FREQUENCY	TYPE
Nitrosodibutylamine	NA	NA	NA	Report	One/Term[*5]	Grab
Nitrosodiethylamine	NA	NA	NA	Report	One/Term[*5]	Grab
N-Nitrosopyrrolidine	NA	NA	NA	Report	One/Term[*5]	Grab
Pentachlorobenzene	NA	NA	NA	Report	One/Term[*5]	Grab
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	Report	One/Term[*5]	Grab
2,4,5-Trichlorophenol	NA	NA	NA	Report	One/Term[*5]	Grab
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	NA	NA	NA	Report	One/Term[*5]	Grab

WHOLE EFFLUENT TOXICITY TESTING (48-HOUR STATIC RENEWAL[*7])	VALUE	FREQUENCY[*6]	TYPE
Daphnia pulex (in 1st year and years 2-5 if any test fails)	Report	Once/6 months	Grab[*8]
Pimephales promelas (in 1st year and years 2-5 if any test fails)	Report	Once/6 months	Grab[*8]
If All Tests Pass During 1st year			
Daphnia pulex (years: 2, 3, 4, 5)	Report	Once/6 months	Grab[*8]
Pimephales promelas (years: 2, 3, 4, 5)	Report	Once/year	Grab[*8]

Footnotes:

*1. The first sample event of any reporting period shall be at least 10-days from the first sample event of the previous reporting period. Sampling shall be during times of cleaning of raceways, troughs, or tanks if possible.

*2. See **Appendix A of Part II** of the permit for minimum quantification limits.

*3. The hatchery to collect data from the incoming spring(s) water and effluent wastewater for 8 consecutive quarters from the effective date of the permit and report those results with the DMR.

*4. The hatchery to follow the SWQB SOP for total recoverable aluminum.

*5. One time sample for the new approved NMWQS during the first year of the effective permit. Submit the results to both EPA and NMED.

*6. The tests shall take place between April 1 and June 30, and six months thereafter. See Part II for whole effluent toxicity.

*7. Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements for additional WET monitoring and reporting conditions.

*8. For the WET Testing Type, see directions outlined in Part II.D.2.d - Grab Samples and Composite (Grab samples authorized for this permit).

2. FINAL EFFLUENT LIMITS BASED ON THE HIGHEST MONTHLY AVERAGE FLOW OF 0.75 MGD – OUTFALL 002 (Intermittent 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 hatchery wastewater to Rio Cebolla from Outfall 002 (settling pond). Such discharges shall be limited and monitored by the permittee and reported as specified below:

POLLUTANT	**MINIMUM**	**MAXIMUM**	**FREQUENCY**	**TYPE**
pH	6.6 s.u.	8.8 s.u.	2/Month	Grab

POLLUTANT	**30-DAY AVERAGE**	**DAILY MAXIMUM**	**30-DAY AVERAGE**	**DAILY MAXIMUM**	**FREQUENCY**	**TYPE**
Flow	Report MGD	Report MGD	***	***	Daily	Flow Meter
TSS	Report	Report	10 mg/L	15 mg/L	2/Month[*2]	Grab
SS	NA	NA	0.1 mL/L	0.5 mL/L	2/Month[*2]	Grab
Aluminum[*1, *5] (Total Recoverable)	NA	NA	NA	Report	1/Quarter[*2]	Grab
TRC[*1]	NA	NA	NA	Report	2/Month[*4]	instantaneous Grab[*3]

Footnotes:

*1. See **Appendix A of Part II** of the permit for minimum quantification limits.

*2. The first sample event of any reporting period shall be at least 10-days from the first sample event of the previous reporting period. Sampling shall be during times of cleaning of raceways, troughs and/or tanks if possible.

*3. The sample shall be taken approximately 30 minutes after the expected slug of water has passed through the outfall. The expected time of arrival can be estimated by direct observations with light floatable object.

*4. There shall be no discharge of chlorine from any outfall. TRC sampling is required during the period when the FDA approved drug Chloramine-T is used to treat the Bacterial Gill Disease or chlorine is used for disinfecting and/or a non-FDA approved drug, medication and chemical is used. Instantaneous maximum is defined in 40 CFR Part 136 as being measured within 15-minutes of sampling."

*5. The hatchery to follow the SWQB SOP for total recoverable aluminum.

3. OUTFALL 01B (Special Testing)- FINAL Effluent Limits: Non-FDA Approved Drugs, Medications and/or Chemicals

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 hatchery wastewater containing either non-approved Food and Drug Administration (FDA) drugs, medications, or chemicals (DMC), or DMC used in a manner not consistent with FDA approval, to Rio Cebolla from Outfalls 001 and 002 (See Part II). Such discharges shall be limited and monitored by the permittee and reported as Outfall 01B, as specified below:

POLLUTANT	30-DAY AVERAGE	DAILY MAXIMUM	30-DAY AVERAGE	DAILY MAXIMUM	FREQUENCY	TYPE
Flow	Report MGD	Report MGD	***	***	Daily	Flow Meter
TRC*1	NA	NA	NA	11 ug/L*6	Daily	Instantaneous Grab*5

WHOLE EFFLUENT TOXICITY TESTING (48-HOUR STATIC RENEWAL*2)	30-DAY AVERAGE	48-HOUR MINIMUM	FREQUENCY	TYPE
Daphnia pulex	Report	Report	Once/Use*3	Grab*4
Pimephales promelas	Report	Report	Once/Use*3	Grab*4

Footnotes:

*1. See **Appendix A of Part II** of the permit for minimum quantification limits.

*2. Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements for additional WET monitoring and reporting conditions.

*3. Once/Use is for intermittent use of DMC. For long-term use, only one WET shall be required on the maximum dosage. If any dose is later increased by more than 20% of the maximum dosage, then additional WET tests will be required. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

*4. The sample shall be taken approximately 30 minutes after the expected time of arrival of the treated water has passed through the outfall. The expected time of arrival can be estimated by direct observations with light floatable object.

*5. The sample shall be taken approximately 30 minutes after the expected slug of water has passed through the outfall. The expected time of arrival can be estimated by direct observations with light floatable object.

*6. There shall be no discharge of chlorine from any outfall. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC sampling is required during the period when the FDA approved drug Chloramine-T is used to treat the Bacterial Gill Disease or chlorine is used for disinfecting and/or a non-FDA approved drug, medication and chemical is used. Instantaneous maximum is defined in 40 CFR Part 136 as being measured within 15-minutes of sampling."

4. 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. Also, 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.

5. SAMPLE LOCATION

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream. The sample point shall be clearly marked by the facility if it is not at the final outfall location. There shall be no flow from any source into the piping system after the sample point and prior to the final outfall.

B. SCHEDULES OF COMPLIANCE - None.

C. MONITORING AND REPORTING (MINOR DISCHARGER)

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. Applicable reports (DMRs, Biosolids/Sewage Sludge, Pretreatment Program and Sewer Overflow/Bypass Event) shall be electronically reported to EPA at https://cdx.epa.gov/ as required by 40 CFR 127.16. The permittee may seek a waiver from electronic reporting or until approved for electronic reporting, the permittee shall first submit an electronic reporting waiver request to U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-7179. If paper reporting is granted, the permittee shall submit reports on paper in accordance with signature and certification as required by Part III.D.11, and all other reports required by Part III.D. to the EPA and NMED as required (See Part III.D.4 of the permit).

e-Reporting Programs (if any of the following applicable**)**	**e-Reporting Compliance Date**	**Frequency**
DMRs	Permit effective date	Monthly

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 DMR which is more than the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.

5. NO DISCHARGE REPORTING: A list of the NODI codes is available in the Net-DMR system. For example, if there is no discharge from any outfall during the sampling month, enter a NODI code “C.”

D. OVERFLOW REPORTING

The permittee shall report all overflows with the DMR submittal. However, once available, the permittee may be required to use the Net-Sewer Overflow electronic reporting system to replace the paper reporting requirements. These reports shall be summarized and reported in tabular format.

The summaries shall include date, time, duration, location, estimated volume, and cause of the overflow. They shall also include observed environmental impacts from the overflow; actions taken to address the overflow; and the ultimate discharge location if not contained (e.g., storm sewer system, ditch, and tributary).

Overflows that endanger health or the environment shall be orally reported to EPA at (214) 665-7179, and the NMED Surface Water Quality Bureau at (505) 827-0187 or SWQ.Reporting@env.nm.gov (email preferred), 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 NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

E. POLLUTION PREVENTION REQUIREMENTS

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

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

F. APPLICATION, DMR, AND COMPLIANCE STATUS REPOR

A duplicate copy of application for permit renewal, monthly DMR, and compliance status report, if there are any, shall be sent to NMED at the mailing address listed in Part III of this permit.

PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL) & SUFFICIENTLY SENSITIVE METHODS

EPA-approved test procedures (methods) for analyzing and quantifying pollutants or pollutant parameters, including 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 minimum method level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter;

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 approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter.

The Permittee can develop and submit a report to justify using a 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 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-0-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-Nitroso dimethylamine	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 within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days. Oral notification shall also be made to the New Mexico Environment Department at (505) 827-0187 or SWQ.Reporting@env.nm.gov (email preferred) as soon as possible, but within 24 hours from the time the permittee becomes aware of the circumstance followed by a written report in five days.

* The facility has a total residual chlorine effluent limit during the event Chloramine-T is utilized. If there is a TRC exceedance this should be reported within 24 hours.

C. PERMIT MODIFICATION AND REOPENER

In accordance with [40 CFR Part 122.44(c)], 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, or new State water quality standards are established and/or remanded by the New Mexico Water Quality Control Commission.

In accordance with [40 CFR Part 122.62(a)(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)	
REPORTED AS FINAL OUTFALL	001
CRITICAL DILUTION (%)	100%
EFFLUENT DILTION SERIES (%)	32%, 42%, 56%, 75%, 100%
TEST SPECIES AND METHODS	Daphnia pulex/ Method 2021.0 (EPA/821/R-02-012 or latest version)
	Pimephales promelas/ Method 2000.0 (EPA-821-R-02-012 or latest version)
SAMPLE TYPE	Defined in PART I

b. The NOEC (No Observed Lethal Effect Concentration) is herein 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 WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. REQUIRED TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

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:

Condition/Criteria	Daphnia pulex	Pimephales promelas
# of replicates per concentration	4	2
# of organisms per replicate	5	10
# or organisms per concentration	20	20
# of test concentrations per effluent	5 and a control	5 and a control
Holding time *	36 hours for first use	36 hours for first use
Test Acceptability Criteria	≥90% survival of all control organisms.	≥90% survival of all control organisms.
Coefficient of Variation **	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.

* 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 and the minimum number of effluents portions 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 and must meet the holding time between collection and first use of the sample. 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 3 of this section.

** Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%, or a PMSD value greater than the higher value on the range provided.

a. Statistical Interpretation

The statistical analyses used to determine if there is a 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 the appropriate method manual listed in Part II or the most recent update thereof.

b. Dilution Water

1. 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;

i. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

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

2. If the receiving water is unsatisfactory because of instream toxicity (fails to fulfill the test acceptance criteria), 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:

i. a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;

ii. the test indicating receiving water toxicity has been carried out to completion,

iii. the permittee includes all test results indicating receiving water toxicity with the full report and information required; and

iv. the synthetic dilution water shall have a pH, hardness, and alkalinity like 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.

c. Samples and Composites

i. The permittee shall collect two samples (flow-weighted composite if possible) from the outfall(s).

ii. The permittee shall collect a second sample (composite samples if possible) for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours for first use of the sample. 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 to 6 degrees Centigrade during collection, shipping, and/or storage. A holding time up to 72 hours. is allowed upon notification to EPA and NMED of the need for additional holding time.

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

3. 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 the most current publication of the method manual, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report and submit them 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 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. One set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. Additional results are reported under the retest codes below.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period as follows below. 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.

Reporting Requirement	Parameter STORET CODE	
	Daphnia pulex	Pimephales promelas
Enter a “1” if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution; otherwise enter a "0".	TEM3D	TEM6C
Report the NOEC value for survival	TOM3D	TOM6C
Report the highest (critical dilution or control) Coefficient of Variation	TQM3D	TQM6C
(If required) Retest 1 – Enter a “1” if the NOEC for survival is less than the critical dilution; otherwise enter “0”.	22418	22415
(If required) Retest 2- Enter a “1” if the NOEC for survival is less than the critical dilution; otherwise enter “0”.	22419	22416
(If required) Retest 3- Enter a “1” if the NOEC for survival is less than the critical dilution; otherwise enter “0”.	51444	51443

3. MONITORING FREQUENCY REDUCTION

a. The permittee may reduce the monitoring frequency as outlined in Part I.A.

4. PERSISTENT TOXICITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant toxic 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). If the initial WET test conducted fails, the permittee will conduct three retests.

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

a. Retest: 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 three 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 the reporting requirements previously outlined and available upon request from the Agency.

b. Requirement to Initiate a Toxicity Reduction Evaluation: If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part 6 of this section. The permittee shall notify EPA in writing within 5 days of notification 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 effects at or below the critical dilution, or for failure to perform the required retests.

6. TOXICITY REDUCTION EVALUATION (TRE)

A TRE is triggered following two test failures (a failure followed by one retest failure).

a. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE to the EPA WET Coordinator at 6WQ-PO. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE 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:

1. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, a Toxicity Identification Evaluation (TIE) and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Identification Evaluations to characterize the nature of the constituents causing toxicity, 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.

2. 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 toxicity 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;

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

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

a. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal.

b. The permittee shall submit a quarterly TRE Activities Report to the EPA WET Coordinator (6WQ-PO) in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:

1. Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity; Any studies/evaluations and results on the treatability of the facility’s effluent toxicity; and

2. Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution. A copy of the TRE Activities Report shall also be submitted to the state agency.

3. Any results and interpretation of any chemical specific analysis, and for any characterization, identification, and confirmation tests performed during the quarter.

4. Any changes to the initial TRE plan and schedule that are believed necessary.

c. Finalizing a TRE

The permittee shall submit (to EPA 6WQ-PO) a final report on TRE activities no later than twenty-eight (28) months from confirming toxicity 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 toxicity 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 TRE Activities shall also be submitted to the state agency.

A TRE may be stopped if there is no toxicity at the critical dilution for a period of 12 consecutive months (with at least monthly testing) following confirmation of toxicity in the retests. The permittee would submit a final report to EPA at that time.

d. 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).

E. DRUGS, MEDICATIONS and CHEMICALS (DMC)

Anytime drugs, medications, and chemicals (DMC), at either concentrations and/or uses not approved by the FDA, are used either in amounts or a manner that it would allow it to enter the receiving stream, the Department of Game and Fish (DGF) shall notify both EPA and NMED of its impending use. Notification to NMED shall be by phone within one business day of its decision to use the DMC, and to EPA within three days. Written notification shall also be to both EPA and NMED, in writing no less than five-business days later. Both notifications shall provide the name of the DMC, its amount, concentration of use and reason for its use, along with the expected date and time of its use and expected duration of use. Also, anytime the DGF uses DMC at either amounts and/or uses not approved by the FDA, such that it would allow it to enter the receiving stream, DGF shall conduct WET tests. The testing shall be reported on the discharge monitoring report DMR and reported as Outfall 01B. On the DMR, report in the comment section the date, time duration and the name of the DMC used. Also note the date of the letter sent to EPA and NMED.

WET testing shall be conducted on the maximum dose of each instance of intermittent use of drugs, medications and/or chemicals not approved by the FDA, or drugs, medications and/or chemicals for purposes other than those for which FDA approval was granted (not including chlorine). For long-term use of these drugs, medications and/or chemicals, only one WET test shall be required on the maximum dose of the treatment, unless that maximum dose is later increased by 20 percent. At that point, and any later increases above 20 percent, then additional WET tests will be required. The sample shall NOT be flow weighted with another outfall flow. The sample shall occur at the outfall location consistent with the unit being treated, during the time that the expected highest dose is being administered and shall be taken at a time taking into consideration the lag-time for the slug of maximum dosage of DMC to flow from the point of application to the sample point. The grab sample for the WET test shall be taken 30-minutes after the expected arrival time of the treated water of DMC at the outfall. The expected arrival time can be determined by direct observation by use of a floatable marker such as wooden blocks.

F. CHLORINE USEAGE AS TREATMENT

The permittee shall not use chlorine in the hatchery operation nor discharge any chlorine that may eventually lead to the outfall(s) at the facility. However, the March 2018 Hatchery Management Plan describes the use of Chloramine-T at the hatchery. Consistent with USEPA's response to NMDGF comments for the Red River State Fish Hatchery final permit (NM0030147), TRC monitoring and limitation protective of WQS has been added to the final permit during the period when the Chloramine-T or a non-FDA approved drug, medication and/or chemical is used that may result in the discharge of chlorine /compounds containing chlorine. A daily maximum TRC limit has been added in the final permit.

TRC is sampled using an instantaneous grab sample, and 40 CFR Part 136 defines instantaneous maximum as being measured within 15-minutes of sampling. Also, TRC cannot be averaged for reporting purposes. The final permit has a footnote for TRC stating that: "The effluent limitation for TRC is the instantaneous maximum grab sample taken during periods of chlorine use and cannot be averaged for reporting purposes. Instantaneous maximum is defined in 40 CFR Part 136 as being measured within 15-minutes of sampling."

G. BEST MANAGEMENT PRACTICES

1. IMPLEMENTATION

The permit holder must maintain and update its BMP Plan whenever a change in the facility or operation increases the generation of pollutants or their release or potential release to the receiving waters. The permit holder must also revise the plan, as needed when there are changes in plant operations covered by the BMP Plan. Any changes to the BMP Plan must align with the objectives and specific requirements listed below. Any changes in the BMP Plan must be reported to the EPA and NMED for review and approval. The current BMP Plan provided previously shall remain in effect with this permit.

2. PURPOSE

Through implementation of the BMP Plan the permittee shall prevent or minimize the generation of and the potential for the release of pollutants from the facility to the waters of the United States through normal operations and ancillary activities.

3. OBJECTIVES

The permittee shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants.

a. The number and quantity of pollutants and the toxicity of effluent generated, discharged or potentially discharged at the facility shall be minimized by the permittee to the extent feasible by managing each influent waste stream in the most appropriate manner.

b. Under the BMP Plan, and any Standard Operating Procedures (SOPs) included in the Plan, the permittee shall ensure proper operation and maintenance of the treatment facility.

4. REQUIREMENTS

The BMP Plan shall be consistent with the objectives mentioned above and the general guidance contained in the publication entitled "Best Management [practices Guidance Document" (U.S. EPA 1981) or "Guidance manual for Developing Best Management Practices (BMP's)" (U.S. EPA October 1993), or any subsequent revisions to the guidance document where applicable.

The Plan shall be documented in narrative form, and shall include any necessary plot plan, drawings, or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structures:

a. Name and location of the facility.
b. Statement of BMP policy.
c. The location of all monitoring (sampling) stations.
d. Summary of all data required to the monitoring and sampled for as a permit condition.
e. Specific management practices and standard operating procedures to achieve objective, including, but not limited to the following;

- Modification of equipment, facilities, technology, procedures.
- Improvement in management or general operational phases of the facility.
- Inspections and records.
- Reporting of BMP's incidents.

5. MINIMUM PRACTICES REQUIRED AND IMPLEMENTED IN THE BMP

a. Solids Control

- Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth to minimize potential discharges of uneaten feed and waste products to waters of the U.S.
- To minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off- line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting aquatic animals in the production system.
- Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge to benefit the aquatic environment.

b. Materials Storage

- Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the U.S.
- Implement procedures for properly containing, cleaning, and disposing of any spilled material.

c. Structural Maintenance

- Inspect the production system and the wastewater treatment system on a routine basis to identify and promptly repair any damage.
- Conduct regular maintenance of the production system and the wastewater treatment system to ensure that they are properly functioning.

d. Recordkeeping

- To calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals.
- Keep records documenting the frequency of cleaning, inspections, maintenance, and repairs.

e. Training

The permittee must:

- To ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.

- Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

6. DOCUMENTATION

The permittee shall maintain a copy of the BMP Plan at the facility and shall make the plan available to EPA upon request.

7. MODIFICATION

The permittee shall amend a copy of the BMP Plan whenever there is a change in the facility or in the operation of the facility that increases the generation of pollutants or their release or potential release to the receiving waters. The permittee shall also amend the plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the BMP shall be consistent with the objective and specific requirements listed above. All changes in the BMP Plan shall be reported to EPA in writing.

8. MODIFICATION FOR INEFFECTIVENESS

At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or meeting the specific requirements above, the permit and/or the BMP Plan shall be subject to modifications to incorporate revised BMP requirements.