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Surface Water Quality Bureau

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ERIKA SCHWENDER
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

February 5, 2014

Mr. Mike Sloane, Chief-Fisheries Division
State of New Mexico Department of Game and Fish
PO Box 25112
Santa Fe, NM 87504

Re: New Mexico Department of Game and Fish, Lisboa Springs Hatchery; Major; Individual Permit; SIC 0921; NPDES Compliance Evaluation Inspection; NM0030121; January 22, 2014

Dear Mr. Sloane:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Sarah Holcomb at 505-827-2798 or at sarah.holcomb@state.nm.us.

NMDGF Lisboa Springs State Trout Hatchery

February 5, 2014

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Sincerely,

/s/ Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
NMED District 1, William Chavez by e-mail

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS: S M U NA (FURTHER EXPLANATION ATTACHED NO)

- 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE Y N NA
- 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES Y N NA
- 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT Y N NA
- 4. ALL DISCHARGES ARE PERMITTED Y N NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS: S M U NA (FURTHER EXPLANATION ATTACHED YES)

- 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Y N NA
- 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. S M U NA
 - a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING Y N NA
 - b) NAME OF INDIVIDUAL PERFORMING SAMPLING Y N NA
 - c) ANALYTICAL METHODS AND TECHNIQUES. Y N NA
 - d) RESULTS OF ANALYSES AND CALIBRATIONS. Y N NA
 - e) DATES AND TIMES OF ANALYSES. Y N NA
 - f) NAME OF PERSON(S) PERFORMING ANALYSES. Y N NA
- 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. S M U NA
- 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. S M U NA
- 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. Y N NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS: S M U NA (FURTHER EXPLANATION ATTACHED NO)

- 1. TREATMENT UNITS PROPERLY OPERATED. S M U NA
- 2. TREATMENT UNITS PROPERLY MAINTAINED. S M U NA
- 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. S M U NA
- 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. S M U NA
- 5. ALL NEEDED TREATMENT UNITS IN SERVICE S M U NA
- 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. S M U NA
- 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. S M U NA
- 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. Y N NA
- STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. Y N NA
- PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. Y N NA

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? Y N NA
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? Y N NA
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? Y N NA
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED NO).
 DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. Y N NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. Y N NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. Y N NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. Y N NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. Y N NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE Y N NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. Y N NA

b) PROPER PRESERVATION TECHNIQUES USED. Y N NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. Y N NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? Y N NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED NO).
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE 4" Weir

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. Y N NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. Y N NA

4. CALIBRATION FREQUENCY ADEQUATE. Y N NA
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES. Y N NA
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. Y N NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. Y N NA

6. HEAD MEASURED AT PROPER LOCATION. Y N NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. Y N NA

SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED NO).
 DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) Y N NA

**NMDGF Lisboa Springs State Trout Hatchery
Compliance Evaluation Inspection
NPDES Permit No. NM0030121
January 22, 2014**

Further Explanations

Introduction

On January 22, 2014, Sarah Holcomb of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the NM Department of Game and Fish, Lisboa Springs State Trout Hatchery on Hwy 63 near Pecos, NM in San Miguel County. The Lisboa State Trout Hatchery has a design flow rate of 0.913 MGD and is classified as a minor industrial discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0030121.

The Lisboa Hatchery discharges into the Pecos River in Segment 20.6.4.217 NMAC of the Pecos River Basin (*State of New Mexico Standards for Interstate and Intrastate Surface Waters*). Designated uses of Segment 20.6.4.217 NMAC are domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, and primary contact. Part of this segment, from Alamitos Canyon to Willow Creek, does not support the high quality coldwater aquatic life use and turbidity is listed as the cause of impairment. (See *2012-2014 State of New Mexico 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads*.) A TMDL for turbidity was prepared for this segment in 2005. The permit's daily maximum limitation of 15 mg/L TSS is in accordance with the Waste Load Allocation of the TMDL.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittee's representatives, observations made by the NMED inspector, and records and reports kept by the Permittee and/or NMED.

An entrance interview was conducted with Ms. Summer Woods-Tunney, Fish Culturist at approximately 1005 hours on January 22, 2014. The inspector made introductions, presented her credentials and discussed the purpose of the inspection. Ms. Woods-Tunney informed the inspector that all hatchery management was on leave until the next week. The inspector toured the facility with Ms. Woods-Tunney and went over some initial paperwork, and made arrangements to call the facility the next week with some follow up questions. An initial exit interview to discuss the preliminary findings of the inspection was conducted with Ms. Woods-Tunney at approximately 1040 hours on January 22, 2014, and then followed up with Mr. Scott Benard - Hatchery Manager, Mr. Roddy Gallegos - Assistant Chief, and Ms. Heather Timmons - Environmental Compliance Specialist via email after the inspection.

Treatment Scheme

The Lisboa Hatchery is a production facility for rainbow trout with an estimated annual rate of production of 65,000 pounds per year. The water source for the hatchery is natural springs and a ground water well. The spring source stays at a constant flow year round.

The facility has been converted into a semi-recirculation system. The water enters the facility via the eight fry raceways. After the spring water exits the fry raceways, it is supplemented with additional water as needed from the groundwater well. It then proceeds to a drum and disc filtration system along with UV sterilization (added to the facility during a shutdown period in 1999 due to the presence of whirling disease. The facility then re-opened in March 2003). This system treats the water before it is delivered to the sixteen available north side/spring-side raceways, where fingerlings and catchable trout are raised. The filtration system filters out solids larger than 10 µm. The excess water from the north side is then delivered to a sump, and then proceeds through another drum and disc filtration system, along with UV sterilization, prior to entering the sixteen south side/riverside raceways. The solids collected during filtration and from cleaning of the raceways are sent to the facility's waste manifolds, and then to the kettles for settling before the wastewater is discharged from Outfall 002. Generally, flow from the raceways is sent to two recirculation tanks and is then pumped back to the disc filters and resent through the facility.

There are 32 major and 8 minor raceways, and 24 troughs in the system.

Outfall 001 was discontinued/plugged and is no longer available for discharge.

Outfall 002 is currently the primary outfall for wastewater discharge. It is located at the kettle raceway – a concrete structure originally used for trout production, but which is now used as the final settling basin. This facility change occurred in 1996 when a pipe was installed, allowing facility staff to directly discharge from the waste manifold. Discharge is measured by head height at a 4” weir.

Outfall 003 is the old earthen settling basin, which is not currently in use. It would only be used when the kettle basins are being cleaned. Flow would be measured at this outfall by a head height over a 20” weir. The earthen pond has not been in use since approximately 2011.

Outfall 004 is also no longer in use. It was used for the production pond in the past, but has been sealed off. According to past inspection documentation from USEPA, there is the possibility that this could be used in the future for hydroelectric power generation.

Solids/Sludge Management

Lisboa removes solids from the system by using a vacuum tank. According to facility staff, solids are removed from the system approximately every eight months. The vacuum tank is mounted on the back of a truck and by using a hose and head attachment, solids are gently removed over the course of a few days. The solids are reportedly disposed of on a local farm’s fields and used as a nutrient source to grow grasses. The vacuum tank was not readily visible during this inspection.

Further Explanations

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section B – Recordkeeping and Reporting Evaluation – Overall rating of “Marginal”

The permit states in Part I.A.1:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	POLLUTANT	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 s.u.	8.8 s.u.	2/Month	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	30-DAY AVG	7-DAY AVG	DAILY MAX		
Flow	Report MGD	Report MGD	***	***	***	Daily	Measured over weir
TSS	82	123	10	N/A	15	2/Month	Grab
SS	N/A	N/A	0.1 ml/l	N/A	0.5 ml/l	2/Month	Grab
TRC	N/A	N/A	N/A	N/A	Report	2/Month	Grab

The permit states in Part III.5.b:

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of all measurements and shall maintain appropriate records of such activities.

Findings for Recordkeeping and Reporting:

A review of the DMR data shows permit exceedances for TSS in March 2012. According to the facility representatives, the kettle basins were due for cleaning and facility staff did so when the sampling showed the increase. Facility management also adjusted the frequency of kettle cleaning at this time to prevent further permit exceedances. SS exceedances were noted in April and June of 2013 for the monthly average.

DMR data also showed that ammonia loading data was not reported on the quarterly DMRs for December 2011, March 2012, and June 2012, although concentration data was reported. Additionally, ammonia loading was also reported as No Discharge on the DMRs for September 2012 and December 2012. The facility representative indicated that the NetDMR submissions would be corrected to report the correct information for ammonia.

During an onsite review of multiple months' worth of bench sheet and monitoring data, the inspector noted that the calibration values documented during calibration of the facility's pH meter did not change. The inspector questioned the facility to ensure that calibrations were being conducted. The facility representative indicated that the form would be changed in the future to assure that calibration measurements would be written in to show calibrations were being performed.

Discharge Monitoring Report Calculation Check

The DMR calculation check was conducted for the parameter of TSS for the month of November 2013.

✓ = in agreement with calculation result submitted on facility's NetDMR.

<u>Date</u>	<u>TSS Result</u>
11-6-2013	3.0 mg/L
11-20-2013	<3.0 mg/L

<u>Date</u>	<u>Flow rate</u>
11-6-2013	Weir measurement = 2.5 inches. [4 in weir x 141 gpm x 0.00144 = 0.812 MGD]
11-20-2013	Weir measurement = 2 1/8 inches [4 in weir x 110 gpm x 0.00144 = 0.634 MGD]

Loading:

November's 30-day average :

11-6-2013: 3.0 mg/L x 8.34 x 0.812 mgd = 20.32 lbs/day

11-20-2013: <3.0 mg/L x 8.34 x 0.634 mgd = 15.86 lbs/day

Avg: $(20.32 + 15.86)/2 = 18.09$ lbs/day (This was reported as 18.0865 lbs/day) ✓

November's 7-day average = 20.32 lbs/day (This was reported as 20.3202 lbs/day) ✓

Concentration:

November's 30-day average = $(3.0 \text{ mg/L} + <3.0 \text{ mg/L})/2 = 3.0 \text{ mg/L}$ (this was reported as 3.0 mg/L) ✓

January's 7-day average = 3.0 mg/L (This was reported as 3.0 mg/L) ✓

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Sarah Holcomb	Date: 1-22-2014	Time: 1035 hours
City/County: Near Pecos, San Miguel County		
Location: NMDGF Lisboa Springs State Hatchery.		
Subject: Outfall 002 discharge to the Pecos River.		

