

NPDES PERMIT NO. NM0024937

STATEMENT OF BASIS

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

1. APPLICANT

New Mexico State Park and Recreation
P.O. Box 13
Elephant Butte, NM 87935

2. ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
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3. PREPARED BY

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4. DATE PREPARED

March 13, 2009

5. PERMIT ACTION

Proposed reissuance of the current National Pollutant Discharge Elimination System (NPDES) permit issued June 8, 2006, with an effective date of August 1, 2006, and an expiration date of August 31, 2008.

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed in Title 40, Code of Federal Regulations, revised as of January 2, 2009.

6. DISCHARGE LOCATION

The discharger is a publicly owned treatment works (POTW). The facility is located at 101 Highway 195, Elephant Butte, in Sierra County, New Mexico. The facility discharge is to

Elephant Butte Reservoir in the Water Quality Segment number 20.6.4.104 of the Rio Grande Basin. The single outfall of the facility is located at Elephant Butte Reservoir at:

Latitude 33° 08' 39" North, Longitude 107° 11' 04" West

7. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (NM WQS), 20.6.4 NMAC, as amended through August 1, 2007.

The designated uses of the receiving waters are irrigation storage, livestock watering, wildlife habitat, primary contact, and warmwater aquatic life.

8. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code 4952, the applicant currently operates a domestic wastewater treatment facility.

The facility has an activated sludge package plant with a design capacity of 0.03 million gallons per day (MGD). Ultra-violet lamps are used for disinfection. Treated wastewater is fed to an evaporation lagoon and the lagoon has not discharged since 2003.

9. EFFLUENT CHARACTERISTICS

The facility submitted no information on effluent characteristics because it has no discharge from the evaporation lagoon since 2003.

10. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

The proposed effluent limitations for those pollutants proposed to be limited are based on regulations promulgated at 40 CFR 122.44. The draft permit limits are based on either technology-based effluent limits pursuant to 40 CFR 122.44(a), on BPJ in the absence of guidelines, NM WQS and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

a. Reason For Permit Issuance

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). The initial permit renewal application was received on September 15, 2008.

b. Operation and Reporting

(1) Regulatory Basis

At a minimum, the facility will be required to meet the "secondary treatment" for domestic sewage, found at 40 CFR 133.102.

(2) Operation and Reporting

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

(3) Sewage Sludge Practices

Sludge produced at the treatment plant is hauled by truck to landfill.

(4) Waste Water Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The facility shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility.

(5) Industrial Wastewater Contributions

Based on information provided by the applicant, the facility does not receive industrial wastewater. EPA has determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been included in the permit.

c. Technology Based Effluent Limitations/Conditions

Regulations promulgated at 40 CFR 122.44(a) require that technology-based effluent limitations be placed in NPDES permits based on effluent limitations guidelines where applicable, on best professional judgment (BPJ) in the absence of guidelines, or on a combination of the two.

Limitations on 5-day biochemical oxygen demand, (BOD₅), or 5-day carbonaceous biochemical oxygen demand, (CBOD₅), and total suspended solids, (TSS), are in accordance with "secondary treatment requirements" established at 40 CFR 133.102 (a) and 133.102 (b).

d. Water Quality Based Limitations

The NM WQCC adopted new WQS for the State of New Mexico. The revised WQS as amended through August 1, 2007, are available on the NMED's website at <http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0004.pdf>. The WQS have been approved by EPA in accordance with Section 303 of the CWA.

e. Post Third Round Policy and Strategy

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR

9016-9019, 3/9/84)." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992, and the EPA Region 6 WET Permitting Strategy on May 1, 2005. The Regional policy and strategies are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in nonconformance with the provisions of 40 CFR 122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

f. Implementation

The Region is currently implementing its post third round policy in conformance with the Regional strategies. The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

g. Reasonable Potential

All applicable facilities are required to fill out appropriate sections of the Form 2A, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to Publicly Owned Treatment Works (POTW's), but also to facilities that are similar to POTW's, but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL.

The amount of information required for minor facilities was limited to specific sections of these forms, because they are unlikely to discharge toxic pollutants in amounts that would impact state water quality standards. Supporting information for this decision was published as "Evaluation of the Presence of Priority Pollutants in the Discharges of Minor POTW's", June 1996, and was sent to all state NPDES coordinators by EPA Headquarters. In this study, EPA collected and evaluated data on the types and quantities of toxic pollutants discharged by minor POTW's of varying sizes from less than 0.1 MGD to just under 1 MGD. The Study consisted of a query of the EPA Permit Compliance System (PCS) database from 1990 to present, an evaluation of minor POTW data provided by the State agencies, and on-site monitoring for selected toxics at 86 minor facilities across the nation.

Due to the limited information required by the application, the Agency has determined that no reasonable potential exists for this discharge to violate applicable NM WQS for the protection of designated uses, except for pH and E. coli due to the nature of discharge. Monitor of total residual chlorine is not proposed because chlorine product is not used for disinfection. Even chlorine product would be used for system clean-up, the discharge is to a lagoon and chlorine residue would react with substances in the lagoon prior to discharging to the receiving stream. EPA determines that the discharge has no reasonable potential to exceed water quality standard for total residual chlorine.

h. Final Effluent Limitations

Technology-based effluent limitations are established in the proposed permit for the following pollutants; BOD₅, and TSS. Water quality-based effluent limitations proposed for pH and E. coli are same as those in the expired permit.

i. Monitoring Frequency

Regulations require that permits establish monitoring requirements to yield data representative of the monitored activity (40 CFR 122.48(b)) and to assure compliance with permit limitations (40 CFR 122.44(i)(1)). The monitoring frequencies are based on BPJ, taking into account the nature of the facility and its design flow and the previous permit. Monitoring frequencies for BOD, TSS and E. coli in the current permit are retained. Monitoring frequency for flow is daily and for pH is 1/week. Because the discharge is infrequent, the draft permit proposes estimate flow reading for flow and grab sampling for BOD and TSS. Mass loads are not established because of the non-continued discharge.

j. Whole Effluent Toxicity (WET) Testing

In a letter from Marcy Leavitt, NMED, to Claudia Hosch, EPA, December 16, 2005, NMED provided "Narrative Toxics Implementation Guidance – Whole Effluent Toxicity" (WET Guidance), an update to the 1995 Implementation Guidance. The discharge is to Elephant Butte Reservoir, therefore, the critical dilution of 100% applies. In accordance with the WET Guidance, the facility is required to conduct a single effluent characterization WET test using a 7-day chronic test with *Ceriodaphnia dubia* and *Pimephales promelas* and a 100% critical dilution.

k. Significant Changes from the Existing Permit

There are significant changes of permit conditions from the existing permit issued June 8, 2006, and expired August 31, 2008:

- (i) Delete effluent limitations and monitoring requirements for fecal coliform; and
- (ii) Delete mass loading limitations and monitoring requirements for BOD and TSS.

11. 303(d) LIST

Elephant Butte Reservoir, in WQS Segment No. 20.6.4.104, is listed in 2008-2010 State

303(d) Integrated Report for not supporting warmwater aquatic life. The probable cause for impairment is mercury in fish tissue. Because of the nature and size of discharge, EPA has determined that the facility has no potential to contribute mercury to the Reservoir.

12. ANTIDegradation AND ANTI-BACKSLIDING POLICY

The NMAC, Section 20.6.4.8 “Antidegradation Policy and Implementation Plan” sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use.

The deletion of fecal coliform is based on the approval of State WQS which replaces fecal coliform criteria with E. coli criteria. The monitoring requirement and effluent limitation for fecal coliform became ineffective in the expired permit upon EPA approval of State WQS.

13. ENDANGERED SPECIES CONSIDERATIONS

When EPA issued the permit to authorize discharges from the Elephant Butte State Park wastewater treatment facility in 2006, EPA conducted effect analysis for nine species listed in Sierra County according to the U.S. Fish & Wildlife Service’s (USFWS) website. These species were bald eagle, Mexican spotted owl, northern aplomado falcon, southwestern willow flycatcher, black-footed ferret, Chiricahua leopard frog, Gila trout, Rio Grande silvery minnow, and Todsens’ pennyroyal. EPA made a “no effect” determination in 2006.

Based on information available to EPA, EPA determines that the reissuance of this permit will have *no effect* on these federally listed threatened or endangered species.

14. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

15. CERTIFICATION

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

16. FINAL DETERMINATION

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

17. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

- a. EPA Application Forms 1 and 2E received by EPA on September 15, 2008.
- b. New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 1, 2007.
- c. Narrative Toxics Implementation Guidance- Whole Effluent Toxicity, State of New Mexico, December 16, 2005.
- d. Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, May 5, 1995.