

FACT SHEET

The United States Environmental Protection Agency (EPA)
Plans To Reissue a
National Pollutant Discharge Elimination System (NPDES) Permit To:

Minidoka Power Plant and State Park
U.S. Department of Interior, Bureau of Reclamation
951 E. Minidoka Dam Road
Rupert, Idaho 83350

Permit Number: ID-002682-4

Public Notice dates: March 9, 2001 - April 9, 2001

EPA Proposes NPDES Permit Reissuance.

EPA proposes to re-issue an NPDES permit to the U.S. Department of Interior, Bureau of Reclamation (Bureau) for the Minidoka Power Plant and State Park. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to the Snake River. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a description of the current discharge and current sewage sludge (biosolids) practices
- a listing of proposed effluent limitations, schedules of compliance, and other conditions
- a map and description of the discharge location
- technical material supporting the conditions in the permit

The State of Idaho Proposes Certification.

EPA is requesting that the Idaho Department of Environmental Quality certify the NPDES permit for the power plant and park, under section 401 of the Clean Water Act.

Public Comment.

Persons wishing to comment on or request a Public Hearing for the draft permit may do so in writing by the expiration date of the Public Notice. A request for a Public Hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

Persons wishing to comment on State Certification should submit written comments by the Public Notice expiration date to the Idaho Department of Environmental Quality (IDEQ) at the Twin Falls Regional Office, 601 Pole Line Rd., Suite 2, Twin Falls, ID 83301.

After the Public Notice expires, and all comments have been considered, EPA's regional

Director for the Office of Water will make a final decision regarding permit reissuance. If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If comments are received, EPA will address the comments and issue the permit. The permit will become effective 30 days after the issuance date, unless an appeal is submitted to the Environmental Appeals Board within 30 days.

Documents are Available for Review.

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (See address below). Draft permits, Fact Sheets, and other information can also be found by visiting the Region 10 website at www.epa.gov/r10earth/offices/water/npdes.htm.

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101
(206) 553-2108 or
1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The Fact Sheet and draft permit are also available at:

EPA Idaho Operations Office
1435 North Orchard Street
Boise, Idaho 83706
(208) 378-5746

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I. APPLICANT

U.S. Bureau of Reclamation
Minidoka Power Plant and State Park
NPDES Permit No.: ID-002682-4

Facility Mailing Address:
951 E. Minidoka Dam Road
Rupert, Idaho 83350

II. FACILITY INFORMATION

The U.S. Department of Interior, Bureau of Reclamation (Bureau) operates a dam and hydroelectric power plant on the Snake River near Rupert, Idaho. The facility includes a wastewater treatment plant that receives sewage from restrooms at the dam/power plant and the adjacent Lake Walcott State Park. Treated sewage is discharged via Outfall 001 to the Snake River. The design capacity of the treatment facility is 0.05 million gallons per day (mgd). However, actual peak flows are about 0.001 mgd during the summer when park usage is high. During the remainder of the year, the facility typically discharges less than 200 gallons per day.

Wastewater treatment consists of a mechanically aerated basin followed by chlorine disinfection. The low influent flows compared to design capacity present significant operational challenges for the Bureau. Dog food is added to the system periodically to prevent microbe mortality. According to the Bureau, the current plan is to eventually construct a lined evaporation pond that would receive the effluent from the wastewater treatment system. This would eliminate the day-to-day discharge from Outfall 001 although the permitted outfall would be retained as a back-up to discharging to the pond. No sludge has been removed from the treatment plant during the operating history of the facility.

A review of the facility's Discharge Monitoring Reports for the past five years shows occasional non-compliance with permit limits for five-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS). Flow data also show frequent months with no discharge or discharges "too small to measure." However, inconsistencies among the data (monitoring results in months with no reported flow) suggest problems in performing required monitoring and meeting reporting requirements.

The NPDES permit for the wastewater treatment plant expired on October 17, 1994. A map has been included in Appendix A which shows the approximate location of the facility and discharge location.

III. RECEIVING WATER

A. Receiving Water

The treated effluent from the facility is discharged from Outfall 001 to the Snake River at river mile 674.5. Based on USGS stream flow data collected from 1910 through 1999 at gauging station 13081500 located less than a mile below the dam, the 7Q10 and 1Q10 flows are 1,799.6 cubic feet per second (cfs) and 1,494.1 cfs, respectively. The 1Q10 flow is the one day low flow with a return period of 10 years, and the 7Q10 is the seven day low flow with a return period of 10 years.

B. Water Quality Standards

A State's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria, and an anti-degradation policy. The use classification system designates the beneficial uses (such as cold water biota, contact recreation, etc.) that each water body is expected to achieve. The numeric and/or narrative water quality criteria are the criteria deemed necessary, by the State, to support the beneficial use classification of each water body. The anti-degradation policy represents a three tiered approach to maintain and protect various levels of water quality and uses.

The beneficial uses of the Minidoka Dam to Burley Bridge segment of the Snake River are primary contact recreation, cold water biota, salmonid spawning, and agricultural irrigation and industrial water supply.

C. Water Quality Limited Segment

A water quality limited segment is any waterbody, or definable portion of a water body, where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards. The Burley Bridge to Milner Dam segment of the Snake River has been listed as a water quality limited segment for nitrogen, sediment, oil and grease, and dissolved oxygen.

Section 303(d) of the Clean Water Act (CWA) requires States to develop a Total Maximum Daily Load (TMDL) management plan for water bodies determined to be water quality limited. A TMDL documents the amount of a pollutant a waterbody can assimilate without violating a state's water quality standards and allocates that load to known point sources and nonpoint sources.

In 1999 and 2000, the Idaho Department (IDEQ) of Environmental Quality, Twin Falls Regional Office prepared the *Lake Walcott Subbasin Assessment and TMDL* (Assessment). The Assessment specifically addresses sediment and total phosphorous loadings in the Subbasin. It includes a wasteload allocation of 0.0 lb/day of total phosphorous for Outfall 001 from the Minidoka Power Plant and

State Park. However, this load was based on a qualitative evaluation and the negligible total volume of the discharge. No actual phosphorous monitoring has been performed to date at Outfall 001. The Assessment also included a proposed sediment wasteload allocation for Outfall 001. The phosphorous allocations have been approved by EPA, while the sediment allocations have not received EPA approval.

IV. EFFLUENT LIMITATIONS

In general, the Clean Water Act requires that the effluent limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based limits. A technology-based effluent limit requires a minimum level of treatment for point sources based on currently available treatment technologies. A water quality-based effluent limit is designed to ensure that the water quality standards of a waterbody are being met.

The following summarizes the effluent limitations that are in the draft permit. For more information on deriving technology-based effluent limits and water quality-based effluent limits see Appendix B.

1. The pH range shall be between 6.0 - 9.0 standard units.

TABLE 1: Monthly, Weekly and Daily Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
BOD ₅	30 mg/L (0.29 lb/day)	45 mg/L (0.43 lb/day)	---
TSS	30 mg/L (0.29 lb/day)	45 mg/L (0.43 lb/day)	---
Total Residual Chlorine	0.5 mg/L	0.75 mg/L	---
E. Coli Bacteria	126/100 ml	---	406/100 ml
Fecal Coliform	---	200 colonies/100 ml	---
Total Phosphorus	0.0 lbs/day	---	---

V. SLUDGE REQUIREMENTS

Currently, sludge from the treatment plant is stored in the aeration basin. The Bureau does not anticipate having to remove the sludge from the basin during the term of this permit (five years).

EPA Region 10 recently decided to separate wastewater and sludge permitting. Under the Clean Water Act (CWA), EPA has the authority to issue separate sludge-only permits for

the purposes of regulating biosolids. EPA will issue a sludge-only permit to this facility at a later date, as appropriate.

Until future issuance of a sludge-only permit, any sludge management and disposal activities at the facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503 and any requirements of the State's biosolids program. The Part 503 regulations are self-implementing, meaning that permittees must comply with them whether or not a permit has been issued. Therefore, the CWA does not require the facility to have a permit prior to use or disposal of biosolids.

VI. MONITORING REQUIREMENTS

Section 308 of the Clean Water Act and federal regulation 40 CFR 122.44(i) requires that monitoring be included in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The permittee is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports to EPA. Table 2 presents the proposed effluent monitoring requirements based on the minimum sampling necessary to adequately monitor the facility's performance. Because the Assessment specifically addresses phosphorous loadings to the Snake River, total phosphorous monitoring has been included in the draft permit.

The draft permit retains the existing permit requirement of grab sampling rather than composite sampling. This is based on the extremely low flows through the system, i.e., typically only a few low volume batches of wastewater are treated daily.

TABLE 2: Treatment Plant Monitoring Requirements

Parameter	Sample Location	Sample Frequency ¹	Sample Type
Flow, mgd	Effluent	Continuous	recording

BOD ₅ , mg/L	Effluent	1/month	grab
TSS, mg/L	Effluent	1/month	grab
pH, standard units	Effluent	1/week	grab
E. Coli, colonies/100 ml	Effluent	5/month	grab
Fecal Coliform, colonies/100 ml	Effluent	1/month	grab
Total Residual Chlorine, mg/L	Effluent	1/week	grab
Total Phosphorus, mg/L	Effluent	1/month	grab
¹ Samples shall be collected when discharges are occurring from the treatment plant. During months when there are no discharges at any time during the month, the permittee shall submit DMRs reporting no discharge from Outfall 001.			

VII. OTHER PERMIT CONDITIONS

A. Quality Assurance Plan

The federal regulation at 40 CFR 122.41(e) requires the permittee to develop and submit a Quality Assurance Plan to ensure that the monitoring data submitted is accurate and to explain data anomalies if they occur. The permittee is required to submit a Quality Assurance Plan within 60 days of the effective date of the draft permit. The Quality Assurance Plan shall consist of standard operating procedures the permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting.

B. Operation and Maintenance Plan

The draft permit requires the permittee to properly operate and maintain all facilities and systems of treatment and control. Proper operation and maintenance is essential to meeting discharge limits and other permit requirements at all times. The facility presents significant operational challenges because influent flows are very low compared to design capacity. According to the Bureau, this has caused the occasional exceedances of BOD₅ and TSS limits. Further, the Bureau has not consistently met the existing permit monitoring and reporting requirements. Therefore, the permittee is required within 180 days of permit issuance to develop and implement an operation and maintenance plan for the facility. The plan shall be retained on site and made available to EPA and IDEQ upon request.

C. Additional Permit Provisions

Sections II, III, and IV of the draft permit contain standard regulatory language that must be included in all NPDES permits. Because they are regulations, they cannot be challenged in the context of an NPDES permit action. The standard

regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

VIII. OTHER LEGAL REQUIREMENTS

A. Endangered Species Act

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service if their actions could adversely affect any threatened or endangered species. EPA has determined that issuance of this permit will not affect any of the endangered species in the vicinity of the discharge. See Appendix C for further details.

B. State Certification

Section 401 of the Clean Water Act requires EPA to seek state certification before issuing a final permit. As a result of the certification, the state may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with water quality standards.

C. Permit Expiration

This permit will expire five years from the effective date of the permit.

APPENDIX A
Facility Location

APPENDIX B
Basis for Effluent Limitations

Technology-based Effluent Limitations

The Minidoka Power Plant and State Park wastewater treatment facility is a non-municipal discharger referred to as a Treatment Works Treating Domestic Sewage (TWTDS). National performance based effluent limitations for TWTDS discharges have not been promulgated by EPA. In these cases, effluent limitations are developed using Best Professional Judgement (BPJ).

The authority for BPJ is contained in Section 402(a)(1) of the CWA. The NPDES regulations at 40 CFR § 125.3 define what factors must be considered when establishing BPJ-based conditions in a permit. In this case, BPJ-based limits have been incorporated into the draft permit based on the secondary treatment standards for municipal wastewater treatment plants.

Section 301 of the CWA established a required performance level, referred to as “secondary treatment,” that all publicly owned treatment works (POTWs) were required to meet by July 1, 1977. EPA developed “secondary treatment” regulations which are specified in the 40 CFR 133. These technology-based effluent limits identify the minimum level of effluent quality attainable by secondary treatment in terms of five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and pH.

The technology based effluent limits applicable to this facility are as follows:

1. 5-day Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS), concentration based limits:

BOD₅ and TSS

Average Monthly Limit = 30 mg/L

Average Weekly Limit = 45 mg/L

2. The secondary treatment regulations and the existing permit provide a requirement for 85 percent removal of influent BOD₅ and TSS loadings. The negligible daily influent flow to the plant and design factors make it impractical to collect influent samples. Therefore, the percent removal requirements are not included in the draft permit. However, as an alternative to percent removal requirements, mass based effluent limitations are also included in the draft permit to ensure that the facility continues to operate the treatment system properly.
3. 5-day Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS),

mass based limits: Federal regulations at (40 CFR § 122.45 (f)) require BOD₅ and TSS limitations to be expressed as mass based limits. The existing permit includes mass based limits based on a previously reported design flow of 0.041 mgd, which is much higher than the actual peak flow through the system. Since very limited flow data are available, a peak flow has been calculated based on the Bureau's description of facility operations.

EPA has assumed approximately 200 gallons per day from the dam and power plant restrooms (used by less than 12 staff) and 950 gallons per day from the park. During the summer, the park lift station is pumped no more than once per day producing 950 gallons per pumping event. Therefore, the total peak flow is estimated to be 1150 gallons per day (0.00115 mgd). The loading is then calculated as follows: concentration X actual peak flow X 8.34.

BOD₅ and TSS loading, monthly avg. = 30 mg/L X 0.00115 mgd X 8.34 = 0.29 lb/day

BOD₅ and TSS loading, weekly avg. = 45 mg/L X 0.00115 mgd X 8.34 = 0.43 lbs/day

3. The pH range shall be between 6.0 - 9.0 standard units.
4. The Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA16.01.02.420.02.b) require that fecal coliform concentrations in treated effluent not exceed 200 colonies/100mL.
5. EPA Region 10 policy is to establish limits for total residual chlorine in discharges from facilities that use chlorine disinfection. The average monthly total residual chlorine limit for Outfall 001 is 0.5 mg/L. Based on similar systems, maintaining this level over a minimum of 15 minutes will provide adequate disinfection. The average weekly limit for total residual chlorine has been established as 1.5 times the average monthly limit.

Water Quality-based Effluent Limitations

Idaho Water Quality Standards require a pH range of 6.5 - 9.5 standard units. EPA has assumed that a mixing zone will not be provided for pH. Therefore, the lower pH limit in the draft permit is the applicable cold water biota criteria of 6.5.

EPA has also assumed no mixing zone will be granted for compliance with the Idaho Water Quality Standard for E. coli for protection of primary recreation use in the Snake River. Therefore, the draft permit requires the discharge from Outfall 001 to meet the E. coli water quality standard of 126/100 ml (average monthly) and 406/100 ml (daily maximum).

The *Lake Walcott Subbasin Assessment and TMDL* (Assessment) provides a phosphorous

loading of 0.0 lbs/day. This is based on the negligible volume of the discharge rather than actual phosphorous monitoring which has not been performed to date. The draft permit includes a monthly total phosphorous limit and monitoring requirement. Since a sediment TMDL has not been approved by EPA, the draft permit only includes technology-based requirements for TSS.

APPENDIX C
Endangered Species Act

Section 7 of the Endangered Species Act (ESA) requires federal agencies to request a consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service regarding potential effects an action may have on listed endangered species.

The U.S. Fish and Wildlife Service identified the gray wolf, bald eagle, Utah valvata snail, Snake River physa snail, Bliss Rapids snail, and Ute ladies'-tresses as federally-listed endangered species. There are no proposed or candidate species in the area of the discharge. The National Oceanic and Atmospheric Administration, National Marine Fisheries Service has not identified any additional listed endangered species within the Snake River basin.

EPA has determined that the requirements contained in the draft permit will not have an impact on the gray wolf. Hunting and habitat destruction are the primary causes of the gray wolf's decline. Issuance of an NPDES permit for the Minidoka Power Plant and State Park wastewater treatment plant will not result in habitat destruction, nor will it result in changes in population that could result in increased habitat destruction. Furthermore, issuance of this permit will not impact the food sources of the gray wolf. The primary reasons for the decline of the bald eagle are destruction of their habitat and food sources and widespread application of DDT. This draft permit will have no impact on any these issues. Similarly, the primary reasons for the decline of the Ute ladies'-tresses are habitat destruction associated with land development, agricultural, and water system alterations. The permit will have no impact on the Ute ladies' tresses because it does not change existing land uses or modify the species' riparian habitat. The Utah valvata and Snake River physa snails will not be disturbed by this permit since there will be no change in the discharge into the Snake River than has occurred for the past 10 years.