

FACT SHEET

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

The City of Notus
P.O. Box 257
Notus, Idaho 83656

Permit Number: ID-002101-6

Public Notice date:

EPA Proposes NPDES Permit Reissuance.

EPA proposes to reissue an NPDES permit to the City of Notus. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to Conway Gulch. 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 past and proposed effluent limitations, schedules of compliance, and other conditions
- a map and description of the discharge location
- detailed technical material supporting the conditions in the permit

The State of Idaho Proposes Certification.

EPA is requesting that the Idaho Division of Environmental Quality certify the NPDES permit for the City of Notus, under section 401 of the Clean Water Act. The state provided preliminary comments on the draft permit, and these comments have been incorporated into the draft permit.

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.

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.

Persons wishing to comment on State Certification should submit written comments by the Public Notice expiration date to the Idaho Division of Environmental Quality (IDEQ) at 1445 North

Orchard, Boise, Idaho 83706-2239. A copy of the comments should also be submitted to EPA.

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 a request for an evidentiary hearing is submitted 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

City of Notus
NPDES Permit No.: ID-002101-6

Facility Mailing Address:
P.O. Box 257
Notus, Idaho
83656

II. FACILITY INFORMATION

A. Treatment Plant Description

The City of Notus owns, operates, and has maintenance responsibility for a facility which treats domestic sewage from local residents and commercial establishments. Treatment of wastewater consists of biological treatment through four facultative ponds. Sludge is treated biologically and indefinitely stored at the bottom of the facultative ponds. Effluent is stored in a lagoon and periodically discharged to Conway Gulch.

The facility's application indicates that the design flow of the facility is .056 million gallons per day (mgd). The effluent from the facility is discharged to an extended detention lagoon system. Due to the lagoon capacity and evaporative losses the facility discharges to Conway Gulch only when the lagoon has reached its capacity and the water level needs to be lowered. According to the application the effluent is discharged for approximately 60 days out of the year.

Due to the extended detention time in the lagoon system the fecal coliform level of the effluent is very low. The level of fecal coliform, in the discharge to Conway Gulch, generally ranges from less than 3 to 40 colonies/ 100 ml. Since these levels are well below the water quality criteria for fecal coliform bacteria, the facility does not need to use chlorine for disinfection.

B. Background Information

The NPDES permit for the wastewater treatment plant expired on February 4, 1991. Under federal law, specifically, the Administrative Procedures Act (APA), a federally issued NPDES permit is administratively extended (i.e., continues in force and effect) provided that the permittee submits a timely and complete application for a new permit prior to the expiration of the current permit. Since the City did submit a timely application for a new permit, the current permit was administratively extended.

A review of the facility's Discharge Monitoring Reports¹ for the past five years indicates that the facility has generally been in compliance with its permit effluent limits.

A map has been included in Appendix A which shows the location of the treatment plant and the discharge location.

III. RECEIVING WATER

A. Outfall location

The treated effluent from the City of Notus wastewater treatment facility is discharged from outfall 001, located at latitude 43° 43' 38" and longitude 116° 48' 58", to Conway Gulch just above its confluence with the Boise River, at approximately river mile 13.

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 Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA 16.01.02.101.01.) protect Conway Gulch for the following beneficial use classifications: cold water biota, and primary and secondary contact recreation.

Since the City of Notus' effluent discharge reaches the Boise River, the impact the discharge has on the Boise River needs to be considered. The Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA 16.01.02.140.01.x) protect the Boise River for the following beneficial uses: cold water biota, primary and secondary contact recreation, and agricultural water supply.

The criteria that the State of Idaho has deemed necessary to protect the beneficial uses for Conway Gulch and the Boise River, and the State's anti-degradation

¹Discharge monitoring reports are forms that the facility uses to report the results of monitoring the facility has done in compliance with their NPDES permit.

policy are summarized in Appendix B.

C. Water Quality Limited Segment

A water quality limited segment is any waterbody, or definable portion of 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 Boise River, at the confluence of Conway Gulch, has been listed as a water quality limited segment. This section of the Boise River has been listed as water quality limited for nutrients, sediment, temperature and bacteria.

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.

The Idaho Division of Environmental Quality, Boise Regional Office has prepared a TMDL for the Boise River. The report, entitled *Lower Boise River, Subbasin Assessment, Total Maximum Loads* (hereafter referred to as the Boise River TMDL) was submitted to EPA on 12/18/98. The Boise River TMDL addresses sediment and fecal coliform bacteria in the Boise River. It also allocates wasteload allocations to point sources discharging directly to the Boise River, and load allocations to the mouths of tributaries and drains discharging directly to the Boise River. TMDLs for tributaries to the Boise River, and the TMDL for nutrients and temperature for the Boise River has been deferred until the year 2001.

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 municipal 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. For more information on deriving technology-based effluent limits and water quality-based effluent limits see Appendix C.

The following summarizes the effluent limitations that are in the draft permit.

1. The pH range shall be between 6.5 - 9.0 standard units.
2. 65% Removal Requirements for BOD₅: For any month, the monthly average effluent concentration shall not exceed 35 percent of the monthly average influent concentration.

3. There shall be no discharge of floating solids or visible foam other than trace amounts.

TABLE 1: Monthly, Weekly and Daily Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
BOD ₅	45 mg/L (45 lbs/day)	68 mg/L (68 lbs/day)	—
TSS	70 mg/L	105 mg/L	---
Fecal Coliform Bacteria May 1-September 30	50 colonies/100 ml	200 colonies/100 ml	500 colonies/100 ml
Fecal Coliform Bacteria October 1-April 30	200 colonies/100 ml	200 colonies/100 ml	800 colonies/100 ml

V. SLUDGE REQUIREMENTS

Currently, sludge from the treatment plant is stored at the bottom of the facultative ponds. The permittee does not anticipate having to remove the sludge from the bottom of the ponds during the term of this permit (five years).

Section 405(f) of the CWA requires sludge use and disposal requirements to be incorporated into NPDES permits issued to a treatment works treating domestic wastewater. In addition, the sludge permitting regulations in 40 CFR §122 and §124 apply to all treatment works treating domestic wastewater.

General conditions have been incorporated into the proposed permit requiring the permittee to comply with all existing federal and state laws, and all regulations applying to sludge use and disposal.

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. Effluent monitoring for Outfall 001 is required only when the facility is actually discharging to Conway Gulch. Table 3 presents the proposed ambient monitoring requirements for

Conway Gulch, upstream of Outfall 001. Monitoring in Conway Gulch will be required once per month, whenever there is a discharge from Outfall 001. Nutrient monitoring has been included in the proposed permit to help support the development of a TMDL for the Boise River. Nutrient monitoring will be required for a two year period.

TABLE 2: City of Notus Waste Water Treatment Plant Monitoring Requirements

Parameter	Sample Location	Sample Frequency	Sample Type
Flow per discharge occurrence, mgd	Effluent	Continuous	----
Number of days per month that an effluent discharge occurred	Effluent	---	---
BOD ₅ , mg/L	Influent and effluent	1/week	8-hour composite ¹
TSS, mg/L	Effluent	1/week	8-hour composite ¹
pH, standard units	Effluent	1/week	grab
Fecal Coliform Bacteria, colonies/100 ml	Effluent	5/week	grab
Temperature, °C	Effluent	1/week	grab
Total Ammonia as N, mg/L	Effluent	1/week	8-hour composite ¹
Total Kjeldahl Nitrogen, mg/L	Effluent	1/week	8-hour composite ¹
Nitrate-Nitrite, mg/L	Effluent	1/week	8-hour composite ¹
Total Phosphorus, mg/L	Effluent	1/week	8-hour composite ¹
Ortho-Phosphate, mg/L	Effluent	1/week	8-hour composite ¹

Footnotes:

1. An eight (8) hour composite sample shall consist of three discrete aliquots collected over an eight hour period. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and stored in accordance with procedures prescribed in *Standard Methods for the Examination of Water and Wastewater*, 18th Edition.

TABLE 3: Conway Gulch Monitoring Requirements

Parameter	Sample Frequency	Sample Type
Flow, mgd	1/week	----
pH, standard units	1/month	grab
Temperature, °C	1/month	grab
Total Ammonia as N, mg/L	1/month	grab
Total Kjeldahl Nitrogen, mg/L	1/month	grab
Nitrate-Nitrite, mg/L	1/month	grab
Total Phosphorus, mg/L	1/month	grab
Ortho-Phosphate, mg/L	1/month	grab

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. 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 D for further details.

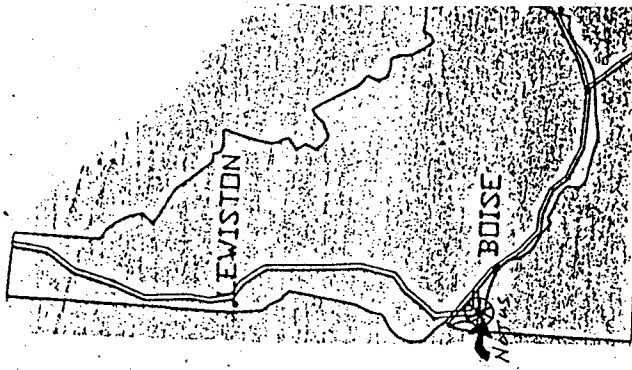
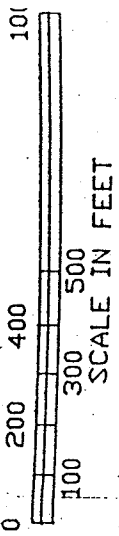
B. State Certification

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

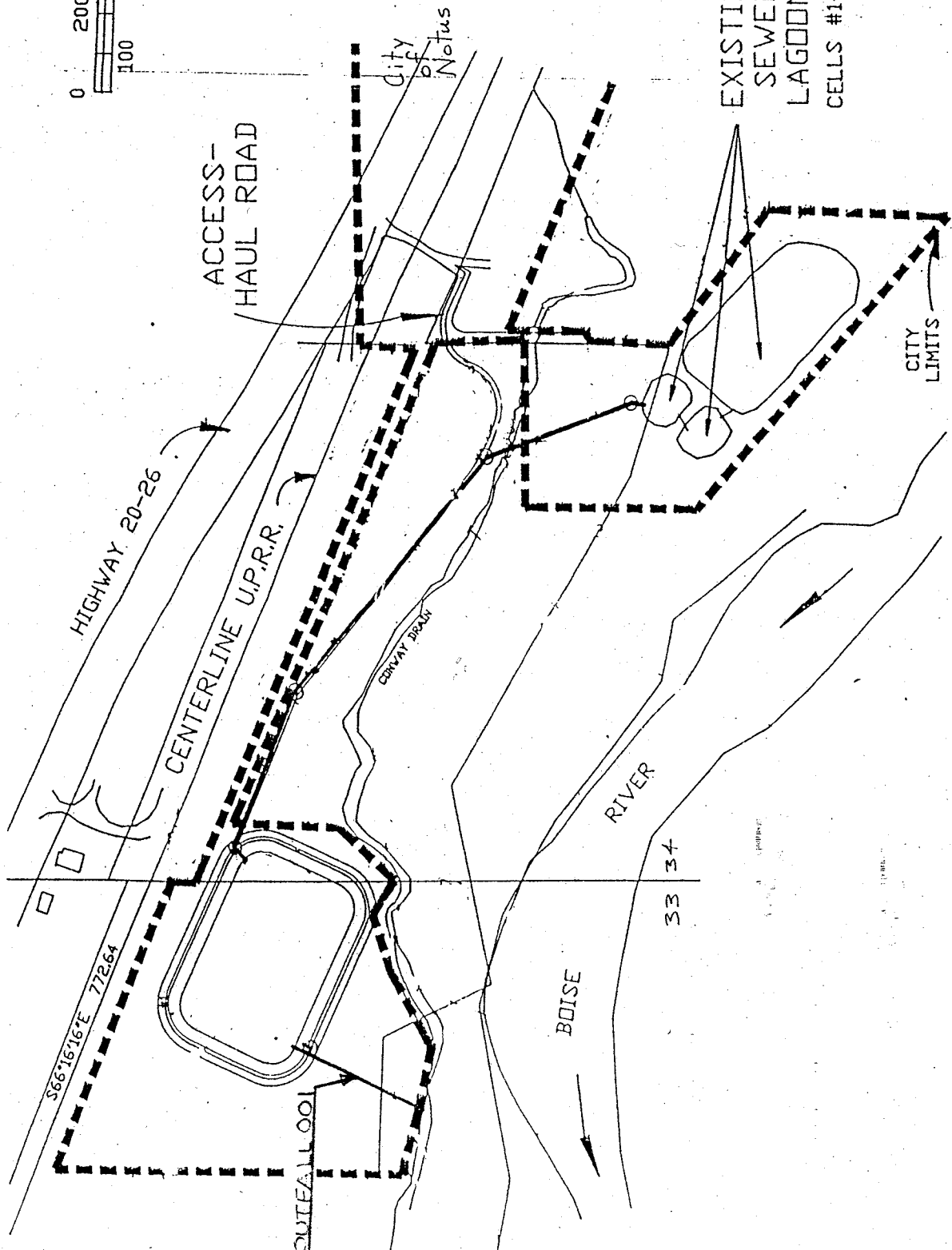
This permit will expire five years from the effective date of the permit.

APPENDIX A
Wastewater Treatment Plant Location



CITY OF NOTUS
(BOISE TO NOTUS)
31 MILES
1986 POP. 454
ADDRESS
CITY OF NOTUS
P.O. BOX 257
NOTUS, ID 836

EXISTING
SEWER
LAGOONS
CELLS #1--#3



APPENDIX B
WATER QUALITY STANDARDS

(A) Water Quality Criteria

For the City of Notus discharge, the following water quality criteria are necessary for the protection of the beneficial uses of both Conway Gulch and the Boise River:

1. IDAPA 16.01.02.200.05 - Surface waters of the State shall be free from floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses.
2. IDAPA 16.01.02.200.06 - Excess Nutrient. Surface waters of the State shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses.
3. IDAPA 16.01.02.200.08 - Sediment. Sediment shall not exceed quantities specified in section 250, or , in the absence of specific sediment criteria, quantities which impair designated beneficial uses. Determinations of impairment shall be based on water quality monitoring and surveillance and the information utilized as described in Subsection 350.02.b.
4. IDAPA 16.01.02.250.01.a. - Primary Contact Recreation: between May 1 and September 30 of each calendar year, waters designated for primary contact recreation are not to contain fecal coliform bacteria significant to the public health in concentrations exceeding:
 1. 500/100 ml. at any time,
 2. 200/100 ml in more than ten percent of the total samples taken over a thirty day period; and
 3. a geometric mean of 50/100 ml based on a minimum of five samples taken over a thirty day period.
5. IDAPA 16.01.02.250.01.b. - Secondary Contact Recreation: waters designated for secondary contact recreation are not to contain fecal coliform bacteria significant to the public health in concentrations exceeding:
 1. 800/100 ml. at any time,
 2. 400/100 ml in more than ten percent of the total samples taken over a thirty day period; and
 3. a geometric mean of 200/100 ml based on a minimum of five samples taken over a thirty day period.
6. IDAPA 16.01.02.250.02.a - Hydrogen ion concentration (pH) values within the range of

6.5 to 9.5 standard units.

7. IDAPA 16.01.02.250.02.c.ii - Water temperature of 22°C or less with a maximum daily average of no greater than 19°C.
8. IDAPA 16.01.02.250.02.c.iii(1) - The one hour average concentration of un-ionized ammonia (as N) is not to exceed $(0.43/A/B/2)$ mg/L, where:

A = 1 if the water temperature (T) is $\geq 20^\circ\text{C}$, or

A = $10^{(0.03(20-T))}$ if T < 20°C, and

B = 1 if the pH is ≥ 8.0 , or

B = $(1 + 10^{(7.4-\text{pH})}) \div 1.25$ if pH is < 8.0

9. IDAPA 16.01.02.250.02.c.iii(2) - The four day average concentration of un-ionized ammonia (as N) is not to exceed $(0.66A/B/C)$ mg/L, where:

A = 1.4 if T is $\geq 15^\circ\text{C}$, or

A = $10^{(0.03(20-T))}$ if T < 15°C, and

B = 1 if the pH is ≥ 8.0 , or

B = $(1 + 10^{(7.4-\text{pH})}) \div 1.25$ if pH is < 8.0

C = 13.5 if pH is ≥ 7.7 , or

C = $20(10^{(7.7-\text{pH})}) \div (1 + 10^{(7.4-\text{pH})})$ if the pH is < 7.7

(B) Anti-Degradation Policy

The State of Idaho has adopted an anti-degradation policy as part of their water quality standard. The anti-degradation policy represents a three tiered approach to maintain and protect various levels of water quality and uses. The three tiers of protection are as follows:

- Tier 1 - Protects existing uses and provides the absolute floor of water quality.
- Tier 2 - Protects the level of water quality necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water in waters that are currently of higher quality than required to support these uses. Before water quality in Tier 2 wastes can be lowered, there must be an anti-degradation review consisting of: (1) a finding that it is necessary to accommodate important economical or social development in the area where the waters are located (2) full satisfaction of all intergovernmental coordination and public participation provisions; and (3) assurance that the highest statutory and regulatory requirements for point sources and best management practices for nonpoint sources are achieved. Furthermore, water quality may not be lowered to less than the level necessary to fully protect the “fishable/swimmable” uses and other existing uses.
- Tier 3 - Protects the quality of outstanding national resources, such as waters of national and State parks and wildlife refuges and waters of exceptional recreational or ecological significance. There may be no new or increased discharges to these waters and no new or increased discharges to tributaries of these waters that would result in lower water quality.

Conway Gulch and the Boise River are tier 1 waterbodies, therefore, water quality should be such that it results in no mortality and no significant growth or reproductive impairment of resident species. An NPDES permit cannot be issued that would result in the water quality criteria being violated. The draft permit contains effluent limits which ensures that the existing beneficial uses for Conway Gulch and the Boise River will be maintained.

APPENDIX C
Basis for Effluent Limitations

The CWA requires Publicly Owned Treatment Works to meet performance-based requirements (effluent limits) based on available wastewater treatment technology. EPA may find, by analyzing the effect of an effluent discharge on the receiving water, that technology based effluent limits are not sufficiently stringent to meet water quality standards. In such cases, EPA is required to develop more stringent, water quality-based effluent limits designed to ensure that water quality standards are met. The draft effluent limits reflect whichever limits (technology-based or water quality-based) are more stringent.

The following explains in more detail the derivation of technology based effluent limits and water quality based effluent limits.

A. Technology-based Effluent Limitations

The CWA requires Publicly Owned Treatment Works to meet performance-based requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level, referred to as “secondary treatment,” that all 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 apply to all municipal wastewater treatment plants and 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 definition of “secondary treatment” includes special considerations regarding waste stabilization ponds. The regulations allow alternative limits for facilities, such as the City of Notus, using waste stabilization ponds. These alternative limits are called “treatment equivalent to secondary treatment.”

The regulation also includes a provision for an Alternative State Requirement (40 CFR 133.105(d)). This allows the State the flexibility to set permit limits above the maximum levels for “treatment equivalent to secondary treatment.” For waste stabilization ponds, the *Idaho Water Quality Standards and Wastewater Treatment Requirements at IDAPA16.01.02.420.02.b* has established average monthly limits for five-day BOD₅, and TSS.

The technology based effluent limits applicable to the City of Notus are as follows:

TABLE 1: Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Percent Removal Requirements
BOD ₅	45 mg/L (21 #/day)	68 mg/L ¹ (30.3 #/day)	65
TSS	70 mg/L	105 mg/L ¹	---

Footnotes:

1. Although not specified in the Idaho State Water Quality Standards, a weekly average effluent limitation for BOD₅ and TSS has been established in accordance with 40 CFR 122.45(d)(2). The average weekly limit is 1.5 times the value of the monthly average limitation.

1. The pH range shall be between 6.0 - 9.0 standard units.
2. Fecal Coliform Bacteria: In addition to the above, the Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA16.01.02.420.02.b) also require that fecal coliform concentrations in treated effluent not exceed a geometric mean of 200 colonies/100ml based on no more than one week's data and a minimum of five samples.
1. Federal regulations at (40 CFR § 122.45 (f)) require BOD limitations to be expressed as mass based limits using the design flow of the facility. The loading is calculated as follows: concentration X design flow X 8.34.

BOD loading, monthly average = 45 mg/L X .056 mgd X 8.34 = 21 lbs/day

BOD loading, weekly average = 65 mg/L X .056 mgd X 8.34 = 30.3 lbs/day

B. Water Quality-based Evaluation

1. Statutory Basis for Water Quality-Based Limits

Section 301(b)(1)(C) of the CWA requires the development of limitations in permits necessary to meet water quality standards by July 1, 1977. Discharges to state waters must also comply with limitations imposed by the state as part of its certification of NPDES permits under section 401 of the CWA.

The NPDES regulation (40 CFR 122.44(d)(1)) implementing section 301 (b)(1)(C) of the CWA requires that permits include limits for all pollutants or parameters which “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality.”

The regulations require that this evaluation be made using procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant in the effluent, species sensitivity (for toxicity), and where appropriate, dilution in the receiving water. The limits must be stringent enough to ensure that water quality standards are met, and must be consistent with any available wasteload allocation.

2. Reasonable Potential Determination

When evaluating the effluent to determine if water quality-based effluent limits are needed based on chemical specific numeric criteria, a projection of the receiving water concentration (downstream of where the effluent enters the receiving water) for each pollutant of concern is made. The chemical specific concentration of the effluent and ambient water and, if appropriate, the dilution available from the ambient water are factors used to project the receiving water concentration. If the projected concentration of the receiving water exceeds the numeric criterion for a specific chemical, then there is a reasonable potential that the discharge may cause or contribute to an excursion above the applicable water quality standard, and a water quality-based effluent limit is required (see Appendix B for the applicable water quality criteria).

As mentioned above, sometimes it is appropriate to allow a small area of ambient water to provide dilution of the effluent. These areas are called mixing zones. Mixing zone allowances will increase the mass loadings of the pollutant to the water body, and decrease treatment requirements. Mixing zones can be used only when there is adequate ambient flow volume and the ambient water is below the criteria necessary to protect designated uses.

3. Procedure for Deriving Water Quality-Based Effluent Limits

The first step in developing a permit limit is to develop a wasteload allocation for the pollutant. A wasteload allocation is the concentration (or loading) of a pollutant that the Permittee may discharge without causing or contributing to an exceedance of water quality standards in the receiving water. Wasteload allocations are determined in one of the following ways:

(a) TMDL-Based Wasteload Allocation

Where the receiving water quality does not meet water quality standards, the wasteload allocation is generally based on a TMDL developed by the State. A TMDL is a determination of the amount of a pollutant from point, non-point, and natural background sources, including a margin of safety, that may be discharged to a water body without causing the water body to exceed the criterion for that pollutant. Any loading above this capacity risks violating water quality standards.

Section 303(d) of the CWA requires states to develop TMDLs for water bodies that will not meet water quality standards after the imposition of technology-based effluent limitations to ensure that these waters will come into compliance with water quality standards. The first step in establishing a TMDL is to determine the assimilative capacity (the loading of pollutant that a water body can assimilate without exceeding water quality standards). The next step is to divide the assimilative capacity into allocations for non-point sources (load allocations), point sources (wasteload allocations), natural background loadings, and a margin of safety to account for any uncertainties. Permit limitations are then developed for point sources that are consistent with the wasteload allocation for the point source.

The Boise River TMDL developed WLAs for total suspended solids and fecal coliform bacteria for sources that discharge directly into the Boise River.

(b) Mixing zone based WLA

When the State authorizes a mixing zone for the discharge, the WLA is calculated by using a simple mass balance equation. The equation takes into account the available dilution provided by the mixing zone, and the background concentrations of the pollutant.

(c) Criterion as the Wasteload Allocation:

In some cases a mixing zone cannot be authorized, either because the receiving water already exceeds the criteria or the receiving water flow is too low to provide dilution. In such cases, the criterion becomes the wasteload allocation. Establishing the criterion as the wasteload allocation ensures that the Permittee will not contribute to an exceedance of the criteria.

Once the wasteload allocation has been developed, the EPA applies the statistical permit limit derivation approach described in Chapter 5 of the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001, March 1991, hereafter referred to as the TSD) to obtain monthly average, and weekly average or daily maximum permit limits. This approach takes into account effluent variability, sampling frequency, and water quality standards.

4. Water Quality-Based Effluent Limits

(a) Floating, Suspended or Submerged Matter

The Idaho state water quality standards require surface waters of the state to be free from floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses. A condition of the permit requires that there shall be no discharge of floating solids or visible foam in other than trace amounts.

(b) Excess Nutrients

The Idaho state water quality standards require surface waters of the state be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses. The Boise River has been listed as water quality limited for nutrients. There was insufficient information to adequately address nutrients in the Boise River TMDL. Therefore, the nutrient portion of the TMDL has been deferred to the year 2001. Monitoring for nutrients has been incorporated into the draft permit to help gather information to support the development of the TMDL.

(c) Sediment/TSS

The Boise River is listed as water quality limited for sediment. The Boise River TMDL assigned load allocations to the mouths of each tributary that

discharges to the Boise River, and wasteload allocations to point sources that discharge directly to the Boise River. TMDLs for point sources located on the tributaries to the Boise River have been deferred until the year 2001. Sediment monitoring will be incorporated into the permit to help gather information for future TMDL development.

(d) Fecal Coliform Bacteria

The Boise River is listed as water quality limited for bacteria. Conway Gulch has not officially been listed as water quality limited for bacteria, however, data from Conway Gulch shows that the levels of fecal coliform bacteria frequently exceed the levels necessary to support primary and secondary contact recreation.

Since there is no dilution available, the facility must meet the criteria at the end of the pipe. This will ensure that primary and secondary contact recreation uses are met in Conway Gulch and the Boise River. The effluent limits are as follows:

May 1 - September 30: Average Monthly Limit = 50 colonies/100ml
Maximum Daily Limit = 500 colonies/100ml

October 1 - April 30: Average Monthly Limit = 200 colonies/100ml
Maximum Daily Limit = 800 colonies/100 ml

(e) pH

The Idaho state water quality standards require surface waters of the state to have a pH value within the range of 6.5 - 9.5 standard units.

(f) Temperature

Boise River has been listed as water quality limited for temperature. However, the Boise River TMDL recommended that temperature limitations be deferred until other regulatory options (such as developing site specific criteria or doing a use attainability analysis) are explored.

In the interim, temperature monitoring has been incorporated into the draft permit to help gather information to help determine the effects of the facility's discharge on the Boise River.

(g) Ammonia

The Idaho state water quality criteria for ammonia are based on the pH and temperature of the receiving waters. Currently, data does not exist to determine the appropriate criteria for ammonia. The draft permit will require pH, temperature, and ammonia to be monitored in the effluent and ambient water so that, when the permit comes up for reissuance, the data will be available to determine if the effluent is causing or contributing to an exceedance of the water quality standards for ammonia.

(C) Comparison of Technology Based Effluent Limits and Water Quality Based Effluent Limits

The following is a summary of the more stringent of the technology based effluent limits from Section A and water quality based effluent limits from Section B, these are the limits that are proposed in the draft permit:

1. The effluent pH range shall be between 6.5 - 9.0 standard units.
2. 65% Removal Requirements for BOD₅: For any month, the monthly average effluent concentration shall not exceed 35 percent of the monthly average influent concentration.
3. There shall be no discharge of floating solids or visible foam other than trace amounts.

TABLE C-1: Monthly, Weekly and Daily Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
BOD ₅	45 mg/L (21 #/day)	68 mg/L (30.3#/day)	—
TSS	70 mg/L	105 mg/L	—
Fecal Coliform Bacteria May 1-September 30	50 colonies/100 ml	200 colonies/100 ml	500 colonies/100 ml
Fecal Coliform Bacteria October 1- April 30	200 colonies/100 ml	200 colonies/100 ml	800 colonies/100 ml

APPENDIX D
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.

In a letter dated February 11, 1999, the U.S. Fish and Wildlife Service identified the Gray wolf as being a federally-listed endangered species. There are no proposed or candidate species in the area of the discharge. In a letter dated February 9, 1999, the National Oceanic and Atmospheric Administration, National Marine Fisheries Service stated that there are no listed endangered species within the Boise 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 City of Notus 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.