FACT SHEET

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

The City of Rockland
P.O. Box 113
Rockland, Idaho 83271

Permit Number: ID-002204-7
Public Notice start date: March 7, 2001
Public Notice expiration date: April 7, 2001

EPA Proposes NPDES Permit Reissuance.
EPA proposes to reissue an NPDES permit to the City of Rockland. The draft permit places conditions on the discharge of pollutants from the City of Rockland's wastewater treatment plant to Rock Creek. 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 City of Rockland, 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 Division of Environmental Quality (IDEQ) at Pocatello Regional Office, 224 South Arthur, Pocatello, Idaho 83204. A copy of the comments should also be submitted to EPA.

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/water.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 Rockland
NPDES Permit No.: ID-002204-7

Facility Mailing Address:
P.O. Box 113
Rockland, Idaho 83271

II. FACILITY INFORMATION

A. Treatment Plant Description

The City of Rockland (City) owns and operates a facility which treats domestic sewage from local residents and commercial establishments. There are no significant industrial dischargers to the system. The facility is designed for an average winter flow of 0.041 million gallons per day (mgd) and an average summer flow of 0.062 mgd. The facility provides biological treatment in a series of three aeration lagoons prior to discharging via Outfall 001 to Rock Creek.

Based on review of permit file information, the City has not accurately measured or reported effluent flow data. The City's June 2000 permit application indicated average and peak flows of 0.045 mgd during the preceding year. Discharge monitoring report (DMR) data indicate consistent flows of 0.13, which are incorrectly reported in cubic feet per second (cfs), and based on estimates, not on continuous recording as required by the current permit. It is also clear that discharges occur year-around and that months reported in DMRs as "no discharge" periods are likely inaccurate.

The facility has never removed solids during the operating history of the facility and does not expect to do so during the next five years.

B. Background Information

The NPDES permit for the wastewater treatment plant expired on September 26, 1994. In June 2000, the City submitted it's application for permit re-issuance.

A review of the facility's DMRs[1] for the past five years indicates that the facility has generally been in compliance with its permit effluent limits. As discussed in

[1]Discharge monitoring reports (DMRs) are forms used by the permittee to report the results of monitoring that is conducted to verify that they are adhering to the effluent limitations and conditions in their NPDES permit.

Section II.A., the City has not complied with requirements for measuring effluent and instream flow prior to discharge. The lack of these data makes it difficult to determine compliance with the current permit condition which allows the facility to discharge only when a minimum of 50:1 ratio of upstream flow in Rock Creek to effluent is provided.

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

III. RECEIVING WATER

A. Outfall Location/Receiving Water

The treated effluent from the City's wastewater treatment facility is discharged from Outfall 001 to Rock Creek. From the City, Rock Creek flows approximately 10 miles downstream to the confluence with the Snake River.

Rock Creek is a perennial stream. There is no reliable stream flow data for Rock Creek in the vicinity of the City. Flow data from 1985 to 1990 are available for Rock Creek near the confluence with the Snake River. These data show widely varying flow values from 0 to 660 cfs. Low flows typically occur during May through September. The data indicate that there are periods when Rockland cannot discharge and meet the 50:1 dilution requirement.

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 Rock Creek for cold water biota, primary and secondary contact recreation, agricultural water supply and salmonid spawning.

The criteria that the State of Idaho has deemed necessary to protect the beneficial uses for Rock Creek, and the State's anti-degradation 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. Rock Creek has been listed as water quality limited for sediment. The Massacre Rocks to Lake Walcott segment of the Snake River has been listed as water quality limited for sediment, pesticides, and dissolved oxygen.

Section 303(d) of the Clean Water Act requires States to develop a Total Maximum Daily Load (TMDL) management plan for water bodies determined to be water quality limited. The 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 December 2000, the Idaho Division of Environmental Quality (IDEQ) completed the *Lake Walcott Subbasin Assessment and TMDL* (Subbasin Assessment). The Subbasin Assessment indicates that sediment levels in Rock Creek range from 6 to 150 mg/l, well above suggested levels for protection of aquatic life. The Assessment also suggests that the discharge from Outfall 001 does not contribute significant sediment loadings to the Creek compared to non-point source discharges. Sediment levels throughout the Snake River were found to be below aquatic life impairment levels. The Subbasin Assessment includes a TMDL and wasteload allocations for sediment in Rock Creek. However, the sediment TMDL has not received EPA approval and the wasteload allocations are not included in the draft permit. The Subbasin Assessment further indicates that dissolved oxygen and pesticides are not present, in the Massacre Rocks to Lake Walcott segment of the Snake River, at levels that impair designated uses and no TMDLs or wasteload allocations have been established for these parameters to date.

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 effluent 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 and they may be more stringent than technology-based effluent limits. For more information on deriving technology-based effluent limits and water quality-based effluent limits see Appendix C.

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

1. The pH range shall be between 6.5 - 9.0 standard units.

2. For any month, the monthly average effluent concentration for BOD_5 shall not exceed 35 percent of the monthly average influent concentration.

3. There shall be no discharge of floating solids or visible foam, or oil and grease in other than trace amounts.

4. Table 1, below, presents the proposed average monthly, average weekly, and instantaneous maximum effluent limits for BOD_5, TSS, escherichia coli (E. coli) bacteria and fecal coliform bacteria.

TABLE 1: Monthly, Weekly and Daily Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Instantaneous Maximum Limit
BOD_5 (Nov-April)	45 mg/L (15 lbs/day)	65 mg/L (22 lbs/day)	---
BOD_5 (May-Oct)	45 mg/L (23 lbs/day)	65 mg/L (34 lbs/day)	---
TSS (Nov-April)	70 mg/L (24 lbs/day)	105 mg/L (36 lbs/day)	---
TSS (May-Oct)	70 mg/L (36 lbs/day)	105 mg/L (54 lbs/day)	---
E. coli Bacteria	126 /100 ml	---	406 /100 ml
Fecal Coliform Bacteria	---	200/100 ml	---

V. MONITORING REQUIREMENTS

Section 308 of the Clean Water Act and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and ambient data to determine if additional effluent limitations are required and/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, and Table 3 presents the proposed ambient monitoring requirements.

TABLE 2: City of Rockland Waste Water Treatment Plant Monitoring Requirements			
Parameter	Sample Location	Sample Frequency	Sample Type
Flow, mgd	Effluent	continuous	recording
$BOD_{5,}$ mg/L	Influent and effluent	1/month	8-hour composite
TSS, mg/L	Effluent	1/month	8-hour composite
pH, standard units	Effluent	5/week (Monday - Friday)	grab
Total Ammonia as N, mg/L	Effluent	1/month	8-hour composite
Fecal Coliform Bacteria, colonies/100 ml	Effluent	5/month	grab
E. coli Bacteria, colonies/100 ml	Effluent	5/month	grab

TABLE 3: City of Rockland Ambient Monitoring Requirements			
Parameter	Sample Location	Sample Frequency	Sample Type
Upstream Flow, mgd	Upstream of Outfall 001	5/week (Monday - Friday), when discharges are occurring	gauge
Ammonia, mg/L	Upstream of Outfall 001	1/ quarter	grab
pH, standard units	Upstream of Outfall 001	1/quarter	grab
Temperature, °C	Upstream of Outfall 001	1/quarter	grab

VI. SLUDGE (BIOSOLIDS) REQUIREMENTS

Currently, sludge from the treatment plant is stored at the bottom of the ponds. The City does not anticipate having to remove the sludge from the bottom of the ponds during the term of this permit (five years). Therefore, sludge conditions have not been incorporated into the draft permit.

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 complete a Quality Assurance Plan within 60 days of the effective date of the final 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. Minimum Dilution Requirement

The draft permit retains the current requirement that discharges from Outfall 001 are only allowed when there is a minimum of 50:1 dilution in Rock Creek. To further protect water quality, the expired permit also includes a requirement that the facility not discharge flows in excess of 0.1 mgd. Because of the minimum dilution requirement and the technology- and water-quality based limits in the draft permit, EPA has determined that this requirement is not necessary and is not retained in the draft permit.

C. Flow Monitoring Compliance

Within 30 days of the effective date of this permit, the City must: (1) install, calibrate, and maintain a flow monitoring device on the effluent discharge from Outfall 001, and (2) acquire the necessary equipment and initiate upstream monitoring within Rock Creek to demonstrate compliance with the 50:1 dilution requirement. As an alternative to (2), the City may propose to EPA and IDEQ a methodology to calculate instream daily flow based on stream depth, width, and velocity. The City of Weippe currently has an IDEQ approved methodology for calculating upstream flow to meet similar dilution requirements. Such a proposed methodology must be approved by EPA and IDEQ prior to use. After 30 days from the effective date of the permit, the City is prohibited from discharging from Outfall 001 unless these flow monitoring requirements have been met.

D. Operation and Maintenance Plan

The permit requires the City to properly operate and maintain all facilities and systems of treatment and control. Proper operation and maintenance is essential to meeting discharge limits, monitoring requirements, and all other permit requirements at all times. While the City has generally been in compliance with effluent limits, it has had difficulty implementing flow monitoring provisions, ensuring compliance with minimum dilution requirements, and documenting

sampling activities. A 1998 EPA inspection also cited system maintenance concerns that have since been addressed by the City. The City 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.

E. 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.

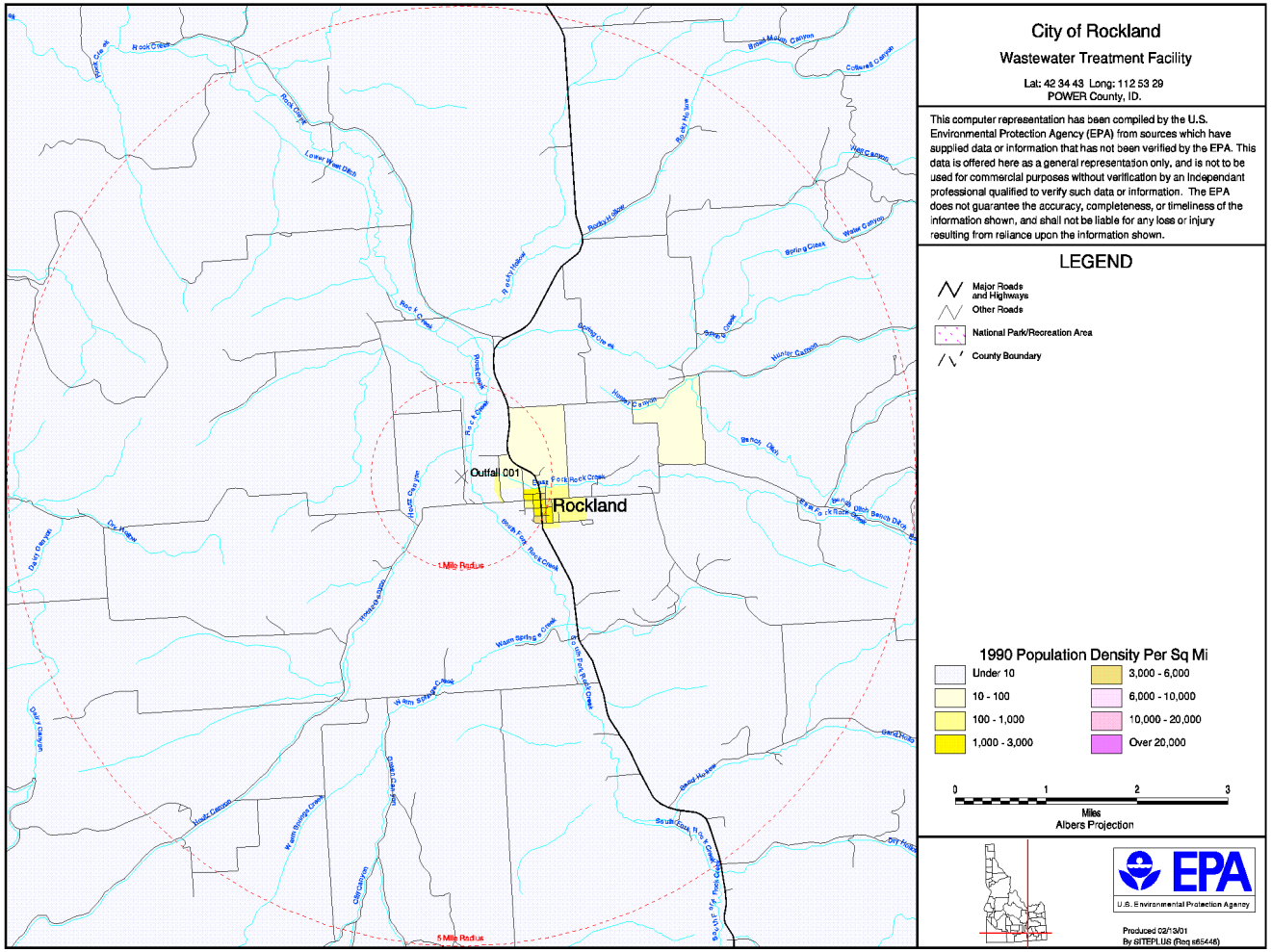
C. Permit Expiration

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

APPENDIX A

Wastewater Treatment Plant Location

APPENDIX A TO FACT SHEET, DRAFT NPDES PERMIT FOR ROCKLAND ID - NO. ID-002204-7



City of Rockland

Wastewater Treatment Facility

Lat: 42 34 43 Long: 112 53 29
POWER County, ID.

This computer representation has been compiled by the U.S. Environmental Protection Agency (EPA) from sources which have supplied data or information that has not been verified by the EPA. This data is offered here as a general representation only, and is not to be used for commercial purposes without verification by an independant professional qualified to verify such data or information. The EPA does not guarantee the accuracy, completeness, or timeliness of the information shown, and shall not be liable for any loss or injury resulting from reliance upon the information shown.

LEGEND

- Major Roads and Highways
- Other Roads
- National Park/Recreation Area
- County Boundary

1990 Population Density Per Sq Mi

Under 10	3,000 - 6,000
10 - 100	6,000 - 10,000
100 - 1,000	10,000 - 20,000
1,000 - 3,000	Over 20,000

0 1 2 3
Miles
Albers Projection

EPA
U.S. Environmental Protection Agency

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APPENDIX B
Water Quality Standards

(A) Water Quality Criteria

For the City of Rockland, the following water quality criteria are necessary for the protection of the beneficial uses of Rock Creek:

1. IDAPA 16.01.02.200.02 - Surface waters of the State shall be free from toxic substances in concentrations that impair designated beneficial uses. These substances do not include suspended sediment produces as a result of nonpoint source activities.

2. 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.

3. IDAPA 16.01.02.200.06 - Excess Nutrients. 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.

4. IDAPA 16.01.01.200.08 - Sediment. Sediment shall not exceed quantities specified in section 250, and 252, 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.

5. IDAPA 16.01.02.250.01.a - Hydrogen ion concentration (pH) values of surface waters must be within the range of 6.5 to 9.5 standard units.

6. IDAPA 16.01.02.250.02. - Cold Water Biota: waters designated for cold water biota are to exhibit the following characteristics:

    i. Dissolved oxygen concentration exceeding 6 mg/l at all times.
    ii. Water temperature of 22°C or less with a maximum daily average of no greater than 19°C .
    iii. The one hour average concentration of un-ionized ammonia (as N) is not to exceed (0.43/A/B/2) mg/L, where:

    $A = 0.7$ if the water temperature (T) is $\geq$ 25°C, or
    $A = 10^{(0.03(20-T))}$ if T < 25°C, and

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

iv. The four day average concentration of un-ionized ammonia (as N) is not to exceed (0.66A/B/C) mg/L, where:

$A = 1.0$ if T is $\geq$ 20°C, or
$A = 10^{(0.03(20-T))}$ if T < 20°C, and

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

$C = 13.5$ if pH is $\geq$ 7.7, or
$C = 20(10^{(7.7-pH)}) \div (1+ 10^{(7.4-pH)})$ if the pH is < 7.7

7. IDAPA 16.01.02.251.01. - Waters designated for primary contact recreation are not to contain E. coli bacteria significant to the public health in concentrations exceeding:

a. A single sample of four hundred and six E. coli organisms per one hundred ml; or
b. A geometric mean of one hundred and twenty six E. coli organisms per one hundred ml based on a minimum of five samples taken, every three to five days, over a thirty day period.

8. IDAPA 16.01.02.251.01- Waters designated for salmonid spawning are to exhibit the following characteristics during the spawning period and incubation for the particular species inhabiting those waters:

i. Dissolved oxygen.
(1) Intergravel dissolved oxygen - (a) one day minimum of not less than 5.0 mg/L; (b) seven day average mean of not less than 6.0 mg/L.
(2) Water-column dissolved oxygen - one day minimum of not less than 6.0 mg/L or 90% of saturation, whichever is greater.
ii. Water temperatures of 13ºC or less with a maximum daily average not greater than 9ºC.
iii. Ammonia - as defined in IDAPA 16.01.02.250.02.c.i., and IDAPA 16.01.02.250.02.c.ii.

(B) Anti-Degradation Policy

The State of Idaho has adopted an anti-degradation policy as part of their water quality standards. 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 the level of water quality necessary to protect those uses.

- 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 waters can be lowered , there must be an anti-degradation review consisting of: (1) a finding that it is necessary to accommodate important economic 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.

Rock Creek is a Tier 1 waterbody, 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 ensure that the existing beneficial uses for Rock Creek will be maintained.

APPENDIX C
Basis for Effluent Limitations

The Clean Water Act (CWA) requires Publicly Owned Treatment Works (POTW) to meet performance-based requirements (also known as technology-based 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 which are designed to ensure that water quality standards are met.

Furthermore, technology-based effluent limits don't always limit every parameter that is in an effluent. For example, technology-based effluent limits for POTWs only limit five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. Yet effluent from a POTW may contain other pollutants such as chlorine, ammonia, or metals depending on the type of treatment system used and the service area of the POTW (i.e., industrial facilities as well as residential areas discharge into the POTW). In these cases, where technology-based effluent limits do not exist for a particular pollutant, EPA must determine if the pollutants will cause or contribute to a violation of the water quality standards for the water body. If they do, EPA is required to develop water quality-based effluent limits designed to ensure that water quality standards are met.

The proposed 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. Part A discusses technology-based effluent limits, Part B discusses water quality-based effluent limits, and Part C compares the technology-based effluent limits with the water quality-based effluent limits, and shows the effluent limits that are proposed in the draft permit.

A. Technology-based Effluent Limitations

The CWA requires POTWs 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 BOD_5, 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 Rockland, using waste stabilization ponds. These alternative limits are called "treatment equivalent to secondary treatment." The technology-based effluent limits applicable to the City of Rockland are as follows:

1. 5-day Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS), concentration based limits:

BOD_5

Average Monthly Limit =	45 mg/L
Average Weekly Limit =	65 mg/L
Percent Removal Requirements =	65 %

TSS

Average Monthly Limit =	70 mg/L
Average Weekly Limit =	105 mg/L
Percent Removal Requirements=	Not Applicable

Although not specified in the Idaho Water Quality Standards, a weekly average effluent limitation for 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.

2. 5-day Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS), mass based limits: Federal regulations at (40 CFR § 122.45 (f)) require BOD_5 and TSS 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. The facility has a design flow of 0.041 mgd during the winter and 0.062 mgd during the summer.

Summer (May through October)

BOD_5 loading, monthly average = 45 mg/L X 0.062 mgd X 8.34 =	23 lbs/day
BOD_5 loading, weekly average = 65 mg/L X 0.062 mgd X 8.34 =	34 lbs/day
TSS loading, monthly average = 70 mg/L X 0.062 mgd X 8.34 =	36 lbs/day
TSS loading, weekly average = 105 mg/L X 0.062 mgd X 8.34 =	54 lbs/day

Winter (November through April)

BOD_5 loading, monthly average = 45 mg/L X 0.041 mgd X 8.34 =	15 lbs/day
BOD_5 loading, weekly average = 65 mg/L X 0.041 mgd X 8.34 =	22 lbs/day
TSS loading, monthly average = 70 mg/L X 0.041 mgd X 8.34 =	24 lbs/day
TSS loading, weekly average = 105 mg/L X 0.041 mgd X 8.34 =	36 lbs/day

3. pH: The pH range must be between 6.0 - 9.0 standard units.

4. Fecal Coliform Bacteria: The Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA16.01.02.420.02.b) require that fecal coliform concentrations in treated effluent not to exceed a geometric mean of 200 colonies/100mL based on no more than one week's data and a minimum of five samples.

B. Water Quality-Based Effluent Limits

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. Procedure for Deriving Water Quality-Based Effluent Limits

The first step in developing a water quality-based 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 for this permit have been determined in one of the following ways:

(a) 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 of the waterbody (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 State has completed the Subbasin Assessment for Rock Creek. However, a sediment TMDL and wasteload allocations have not been approved by EPA to date. The Subbasin Assessment does not include any other requirements applicable to the discharge from Outfall 001.

(b) In some cases a mixing zone is not authorized, either because the receiving water already exceeds the criteria, the receiving water flow is too low to provide dilution, or the state does not authorize one. 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, EPA applies the statistical permit limit derivation approach (if appropriate) 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.

3. Specific Water Quality-Based Effluent Limits

(a) **Toxic Substances**

The Idaho Water Quality Standards require surface waters of the state to be free from toxic substances in concentrations that impair designated uses. There are no significant industrial discharges to the facility, and concentrations of priority pollutants from cities without a significant industrial component are low. Therefore, it is not anticipated that toxicity will be a problem in the City of Rockland effluent, and water quality-based effluent limits have not been proposed.

(b) **Floating, Suspended or Submerged Matter/Oil and Grease**

The Idaho 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 that may impair designated beneficial uses. A narrative condition is proposed for the draft permit that states there must be no discharge of floating solids or visible foam or oil and grease other than trace amounts.

(c) **Excess Nutrients**

The Idaho 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. Nutrients are not listed as pollutants of concern for Rock Creek or the Massacre Rocks to Lake Walcott segment of the Snake River. Therefore, EPA has determined that nutrient limits and monitoring requirements are not necessary and are not included in the draft permit.

(d) **Sediment/Total Suspended Solids (TSS)**

Both Rock Creek and the Massacre Rocks to Lake Walcott segment of the Snake River are listed as water quality limited for sediment. The Subbasin Assessment indicates that sediment levels and turbidity in the discharge from Outfall 001 are low compared to non-point source contributions to Rock Creek. A sediment TMDL and wasteload allocations have not yet been approved by EPA. Therefore, the draft permit includes technology-based limits for TSS.

(e) **pH**

The Idaho Water Quality Standards require surface waters of the state to have a pH value within the range of 6.5 - 9.5 standard units. It is anticipated that a mixing zone will not be authorized for the water quality-based criterion for pH. Therefore, this criterion must be met before the effluent is discharged to the receiving water. The technology-based effluent limits for pH are 6.0 - 9.0 standard units, and also must be met before the effluent is discharged to the receiving water. To ensure that both water quality-based requirements and technology-based requirements are met, the draft permit incorporates the lower range of the water quality standards (6.5 standard units) and the upper range of the technology-based limits (9.0 standard units).

(f) **Dissolved Oxygen (D.O.)**

The Idaho Water Quality Standards require the level of D.O. to exceed 6 mg/L at all times for water bodies that are protected for aquatic life use. Further, during salmonid spawning and incubation periods, the one day minimum intergravel D.O. in Rock Creek must exceed 5 mg/l and the seven day average intergravel D.O. must exceed 6 mg/L. Rock Creek is not listed as water quality limited for D.O., while the Massacre Rocks to Lake Walcott segment of the Snake River is listed as water quality limited for D.O. However, recent D.O. data for the segment in the Subbasin Assessment show that the criteria is being met. Therefore, a water quality-based effluent

limit has not been proposed for D.O.

(g) **Temperature**

The Idaho Water Quality Standards require ambient water temperatures of 22ºC or less with a maximum daily average of no greater than 19ºC for cold water biota protection. Further, water temperatures of 13ºC or less with a maximum daily average not greater than 9ºC are required for salmonid spawning use during the spawning and incubation periods. Rock Creek and the Massacre Rocks to Lake Walcott segment of the Snake River are not listed as water quality limited for temperature. There are also no apparent sources of temperature-related impacts in Rock Creek. Because of these factors and the required 50:1 minimum dilution, a water quality-based effluent limit has not been proposed for temperature.

(h) **Ammonia**

The Idaho Water Quality Standards contain water quality criteria to protect aquatic life, including salmonids, against short term and long term adverse impacts from ammonia. Currently, there is no ammonia data from the facility to determine if ammonia may cause or contribute to a water quality standard violation. Since the data is not available to determine if water quality-based effluent limits are required for ammonia, the draft permit does not propose effluent limits for ammonia. However, the draft permit requires monthly sampling for ammonia, and these data will be used, in the future, to determine if an ammonia limit is needed for the discharge from Outfall 001.

(i) **Escherichia Coli (E. Coli) Bacteria**

According to the Idaho Water Quality Standards, waters designated for primary contact recreation, such as Rock Creek, are not to contain E. coli bacteria significant to the public health in concentrations exceeding:

a. A single sample of four hundred and six E. coli organisms per one hundred ml; or
b. A geometric mean of one hundred and twenty six E. coli organisms per one hundred ml based on a minimum of five samples taken, every three to five days, over a thirty day period.

It is anticipated that a mixing zone will not be authorized for bacteria, therefore, the criteria must be met before the effluent is discharged to the receiving water. The proposed water quality-based effluent limits in the permit include an instantaneous maximum limit of 406 organisms/100 ml, and an average monthly limit of 126 organisms/100 ml.

(j) **Total Residual Chlorine**

The City does not use chlorine at the wastewater treatment facility. Therefore, it is not expected to be present in the discharge and no total residual chlorine limits have been included in the draft permit.

C. Comparison of technology-based effluent limits and water quality-based effluent limits

The following table compares the technology-based effluent limits with the water quality-based effluent limits. The proposed effluent limits in the draft permit are the more stringent of the two types of limits.

Parameter	**Technology-based Effluent Limits**				**Water quality-based Effluent Limits**				**Proposed Effluent Limits in Draft Permit**			
	AML	AWL	IML	range	AML	AWL	IML	range	AML	AWL	IML	range
BOD_5 (Nov-April)	45 mg/L	65 mg/L	---	---	---	---	---	---	45 mg/L	65 mg/L	---	---
	15 lbs/day	22 lbs/day			---	---			15 lbs/day	22 lbs/day		
BOD5 (May-October)	45 mg/L	65 mg/L	---	---	---	---	---	---	45 mg/L	65 mg/L	---	---
	23 lbs/day	34 lbs/day			---	---			23 lbs/day	34 lbs/day		
BOD_5, Percent Removal	65	---	---	---	---	---	---	---	65	---	---	---
TSS (Nov-April)	70 mg/L	105 mg/L	---	---	---	---	---	---	70 mg/L	105 mg/L	---	---
	24 lbs/day	36 lbs/day			---	---			24 lbs/day	36 lbs/day		
TSS (May-October)	70 mg/L	105 mg/L	---	---	---	---	---	---	70 mg/L	105 mg/L	---	---
	36 lbs/day	54 lbs/day			---	---			36 lbs/day	54 lbs/day		
Fecal Coliform Bacteria	---	200/100 ml	---	---	---	---	---	---	---	200/100 ml	---	---
E.coli Bacteria	---	---	---	---	126/100 ml	---	406/100 ml	---	126/100 ml	---	406/100 ml	---
pH	---	---	---	6.0-9.0	---	---	---	6.5-9.5	---	---	---	6.5-9.0

AML means Average Monthly Limit
AWL means Average Weekly Limit
IML means Instantaneous Maximum Limit
--- means no limit

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.

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 City of Rockland wastewater treatment facility 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 25 years.