LIST OF EPA EXHIBITS

Exhibit 1 – Final Permit, issued September 22, 2009

Exhibit 2 –Response to Comments on Draft Permit

Exhibit 3 – Fact Sheet to Draft Permit

Exhibit 4 – Draft Permit

Exhibit 5 – City of Twin Falls Comments to Draft Permit

Exhibit 6 – Idaho Conservation League Comments to Draft Permit

Exhibit 7 – Idaho Department of Environmental Quality Comments to Draft Permit

Exhibit 8 – Final Permit Modification issued, June 24, 2009

Exhibit 9 – Response to Comments on Draft Permit Modification

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Exhibit 21 – Excerpt from IDEQ Draft Pollutant Trading Guidance

Exhibit 22 – TMDL approval letter, from Randall F. Smith, U.S. EPA to David Mabe, IDEQ (Aug. 25, 2000)

Exhibit 23 – TMDL modification approval letter, from Michael Gearheard, U.S. EPA, to Toni Hardesty, IDEQ (Sept. 14, 2005)

Exhibit 24 – Letter granting 30-day extension of public comment period, from Michael J. Lidgard, U.S. EPA, to Mike J. Trabert, City of Twin Falls (June 2, 2009)

Exhibit 25 – Notification of withdrawal of permit conditions, from Michael A. Bussell, U.S. EPA to Jackie Fields, City of Twin Falls (March 2, 2010)

Exhibit 26 – Excerpt from Expired Permit, issued March 28, 2000

EPA EXHIBIT # 1

ADMINISTRATIVE RECORD # 52

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

is authorized to discharge from a facility located in Twin Falls, Idaho, at the following location:

Outfall	Receiving Water	Latitude	Longitude
001	Snake River	42^0 36' 36" N	114^0 29' 06 W

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **November 1, 2009**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2014.**

The permittee shall reapply for a permit reissuance on or before **May 4, 2014**, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 22 day of Sept., 2009,

Christine Psyk for
Michael A. Bussell, Director
Office of Water and Watersheds

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Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be postmarked by the 10th day of the month. (see §III.B)
2. Surface Water Monitoring & Stream Flow Data Report	Surface water monitoring results and stream flow data for the calendar year must be submitted no later than January 31 of the following year. (see §§I.E.6 & 7)
3. Compliance Schedule for Total Suspended Solids	Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule for total suspended solids must be submitted no later than 30 days after the schedule date. Due dates: July 31, 2010; July 31, 2011; July 31, 2012; July 1, 2013; and July 31, 2014. (see § I.C)
4. Quality Assurance Plan (QAP)	The permittee must provide EPA and Idaho Department of Environmental Quality (IDEQ) with written notification that the Quality Assurance Plan has been developed and implemented within 90 days after the effective date of the final permit (see §II.C.). The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.C)
5. Toxicity Reduction Evaluation Plan	The permittee must submit to EPA a copy of its TRE workplan within 90 days after the effective date of this permit. (see §I.C.5.a)
6. Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the Operations and Maintenance Plan has been developed or updated and is being implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.B)
7. Best Management Practices (BMP) Plan	The permittee must provide EPA and IDEQ with written notification that the Plan has been updated and implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.D)
8. Local Limits Evaluation	Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation. (See §II.A.5)

Item	Due Date
9. Whole Effluent Toxicity Test Results	WET test results are due with the DMRs for April and October, i.e., postmarked by May 10 and November 10, respectively. They should also be submitted with the next permit application. (See § I.D.7)
10. Expanded Effluent Test Results	Expanded effluent test results are due with the DMRs for April or October, i.e., postmarked by May 10 or by November 10, respectively, in the 2nd, 3rd, and 4th years of the permit term. They should also be submitted with the next permit application. (See § I.B)
11. Pretreatment Report	The permittee must submit a pretreatment report annually by November 1. This report will cover the period of October 1 of the previous year to September 30 of the current year. (See §II.A.9)
12. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone to (206) 553-1846 within 24 hours after the time the permittee becomes aware of the circumstances including exceedances of the maximum instantaneous limit for *E. coli* and the maximum daily limit for ammonia. (See § III.G)
13. Emergency Response and Public Notification Plan	The permittee must submit written notice to EPA and IDEQ that an overflow emergency response and public notification plan has been developed and implemented within 180 days after the effective date of the final permit. (See § II.E)
14. NPDES Application Renewal	The application must be submitted at least 180 days before the expiration date of the final permit. (see §V.B)

I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Snake River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring Requirements

1. Pollutant Trading.

The permittee may engage in pollutant trading for average monthly discharges of total phosphorus, pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft). No trading is allowed to adjust discharges to meet average weekly limits or for other pollutants. This permit only authorizes trading with other point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading**.** Trading with non-point sources is not authorized. See Appendix A for details about the requirements for buying and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ).

2. Effluent Limitations.

The permittee must limit and monitor discharges from outfall 001 as specified in Table 1, below. All limits represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times, unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

See notes at the end of the table.

Table 1

Effluent Limitations and Monitoring Requirements

	Effluent Limitations			Monitoring Requirements		
Parameter	**Average Monthly Limit**	**Average Weekly Limit**	**Maximum Daily Limit**	**Sample Location**	**Sample Frequency**	**Sample Type**
Flow, mgd	---	---	---	Effluent	Continuous	Recording
Biochemical Oxygen Demand (BOD_5)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day	3,213 lbs/day	---	Effluent	4/week	Calculation[3]
Total Suspended Solids (TSS)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite

Table 1

Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations			Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
TSS (cont.)	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day[4]	3,213 lbs/day[4]	--	Effluent	4/week	Calculation[3]
	980 lbs/day[5]	1,390 lbs/day[5]	---	Effluent	4/week	Calculation[3]
E. coli Bacteria	126 colonies/ 100 mL[6]	---	406 colonies/ 100 mL[7]	Effluent	5/month[8]	Grab
pH	6.5 – 9.0			Effluent	1/day	Grab
Total Phosphorus	710 lbs/day	990 lbs/day	---	Effluent	1/week	24-hour composite
Total Ammonia as N (5/1 – 9/30)	3.8 mg/L	---	5.4 mg/L	Effluent	1/week	24-hour composite
	247 lbs/day	---	351 lbs/day	Effluent	1/week	Calculation[3]
Total Ammonia as N (10/1– 4/30)	5.2 mg/L	---	7.5 mg/L	Effluent	1/week	24-hour composite
	338 lbs/day	---	488 lbs/day	Effluent	1/week	Calculation[3]
Temperature	--	--	--	Influent & Effluent	continuous[9]	Recording
Nitrate-Nitrogen[10]	---	---	---	Effluent	1/week	24-hour composite
Total Kjeldahl Nitrogen[11]	---	---	---	Effluent	1/week	24-hour composite
Whole Effluent Toxicity	---	---	---	Effluent	2/year [11]	24-hour composite
Expanded Effluent Testing[12]	--	--	--	Effluent	1 each in 2nd, 3rd, & 4th years of the permit[13]	24-hr composite

[1] Influent and effluent composite samples shall be collected during the same 24-hour period.
[2] Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.
[3] Loading is calculated by multiplying the concentration (mg/L) by the flow (mgd) on the day sampling occurred and a conversion factor of 8.34.
[4] The interim mass based limits for TSS apply until the facility achieves compliance with the final limits, but no later than June 30, 2014; see §I.C, below.
[5] The final mass based limits for TSS apply as soon as possible but no later than June 30, 2014; see §I.C, below.

[6] The monthly average for *E. coli* is the geometric mean of all samples taken during the month.
[7] This is an instantaneous maximum limit, applicable to each grab sample without averaging.
[8] Five samples taken every three (3) to seven (7) days over a thirty (30) day period.
[9] Continuous temperature monitoring means recording temperature in 1 hour intervals, 24 hours per day.
[10] If analyses are showing non-detect, the method detection limits in Table 3 must be achieved.
[11] in April and October
[12] See NPDES Permit Application Form 2A, Part D for the list of pollutants to include in this testing.
[13] Expanded effluent testing must occur on the same day as a whole effluent toxicity test and must be submitted with the WET test results with the next DMR as well as with the next permit application.

3. The permittee must report within 24 hours to EPA at (206) 553-1846 any violation of the maximum daily limit for ammonia or of the instantaneous maximum limit for *E. coli*. The permittee must report violations of all other effluent limits at the time that discharge monitoring reports are submitted (See §III.B and §III.G, below).

4. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

5. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.

6. Reporting Low Results.

   a) For all effluent monitoring, the permittee must use methods that can achieve a minimum level (ML) less than the effluent limitation. The minimum level is defined as 3.18 × method detection limit (MDL); see Table 3 below for MDLs. For parameters that do not have effluent limitations, the permittee must use methods that can achieve MDLs less than or equal to those specified in Table 3.

   b) For purposes of reporting on the Discharge Monitoring Report (DMR) for a single sample, if a value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the permittee must report "less than {numeric value of the ML}."

   c) For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the permittee must report "less than {numeric value of the ML}." If the average value is equal to or greater than the ML, the permittee must report the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Compliance Schedule for Total Suspended Solids

1. The permittee must comply with all effluent limitations and monitoring requirements in Table 1, above, beginning on the effective date of this permit, except those for which a compliance schedule is specified in § I.C.2, below.

2. A schedule of compliance is authorized for achieving compliance with the final mass-based limits for Total Suspended Solids. The permittee must achieve compliance with the final mass-based effluent limitation for Total Suspended Solids set forth in Table 1 of this permit as soon as possible, but not later than July 1, 2014.

3. While the schedule of compliance specified in § I.C.2 is in effect, the permittee must:

a) meet the concentration-based and interim mass-based effluent limits and the minimum removal rate required in Table 1; and

b) meet the milestones listed in §I.C.5, below.

4. Interim Requirements for the Schedule of Compliance

a) By July 1, 2010, the permittee must complete the Chemical Enhancement Primary Treatment (CEPT);.

b) By July 1, 2011, the permittee must develop a facility plan to achieve the final TSS mass limits;

c) By July 1, 2012, the permittee must select a design alternative and bid to begin construction to achieve final TSS mass effluent limitations;

d) By July 1, 2013, the permittee must report on progress toward achieving final compliance by July 1, 2014;

e) By July 1, 2014, the permittee must complete start-up and optimization of its chosen design alternative and achieve compliance with the final TSS mass-based effluent limitations of Table 1 of the permit.

5. The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the total suspended solids mass effluent limitations. The annual Report of Progress must be submitted by July 31, 2010, and annually thereafter, except that the 2013 report is due on July 1, until compliance with the final TSS mass effluent limits is achieved. See also Part III.J., "Compliance Schedules". At a minimum, the annual report must include:

a) An assessment of the previous year of TSS effluent data and comparison to the TSS interim and final mass effluent limitations.

b) A report on progress made towards meeting the TSS mass effluent limitations, including the applicable deliverable required under §I.C.4, above.

c) Further actions and milestones targeted for the upcoming year.

D. Whole Effluent Toxicity Testing Requirements

The permittee must conduct chronic toxicity tests on effluent samples from outfall 001. Testing must be conducted in accordance with subsections 1 through 7, below.

1. Toxicity testing must be conducted on 24-hour composite samples of effluent. In addition, a split of each sample collected must be analyzed for the chemical and physical parameters required in § I.B, above. When the timing of sample collection coincides with that of the sampling required in § I.B, analysis of the split sample will fulfill the requirements of § I.B as well.

2. Chronic Test Species and Methods

a) Chronic tests must be conducted twice per year, once in April and once in October concurrently with the pretreatment sampling for metals and, when applicable, concurrently with expanded effluent testing.

b) The permittee must conduct short-term tests with the water flea, Ceriodaphnia dubia (survival and reproduction test), and the fathead minnow, Pimephales promelas (larval survival and growth test), for the first three suites of tests. After this screening period, monitoring must be conducted using the most sensitive species. Chronic toxicity testing requires a fresh sample every other day (day 1, 3, 5). The effluent data must be obtained

from the composite sample used for day 1 toxicity tests. Toxicity test samples for days 1, 3 and 5 will be analyzed for BOD5, TSS, E. coli, alkalinity, ammonia, conductivity, dissolved oxygen, hardness, pH, and temperature.

c) The presence of chronic toxicity must be determined as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

d) Results must be reported in TUc (chronic toxic units), TUc = 100 / IC25. If acute toxicity (lethality) is noted during the chronic test, the permittee must report the LC_{50} also.

3. Toxicity Triggers

a) Chronic Toxicity Trigger. If the results of the chronic toxicity test exceed 4 TU_c, the results show chronic toxicity, and the permittee must conduct accelerated toxicity testing. See § C.4, below.

b) Acute Toxicity Trigger. If acute toxicity is demonstrated and the LC_{50} is higher than 3.85 TU_a, the permittee must conduct accelerated toxicity testing. See § C.4, below.

4. Accelerated testing

a) If the chronic testing result exceeds 4.0 TUc, or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a, the permittee must conduct six more tests, at two week intervals over the following twelve-week period, beginning within two weeks of receipt of the sample results that exceed the trigger levels.

b) If chronic toxicity exceeds 4.0 TU_c or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a in any of the six additional tests, the permittee must develop and initiate a Toxicity Reduction Evaluation (TRE) workplan, as described in § E.5, below.

c) If none of the six tests required under this section indicates toxicity, the permittee may return to the normal testing frequency.

5. Toxicity Reduction Evaluation (TRE)

a) TRE Workplan Development.

The permittee must submit to EPA a copy of its TRE workplan [1-2 pages] within 90 days after the effective date of this permit. This plan must describe the steps the permittee intends to follow in the event that whole effluent toxicity testing shows statistically significant toxicity at the dilution that corresponds to that anticipated at the edge of the chronic mixing zone (4:1) and should include at a minimum:

i) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

ii) A description of the facility's strategy for maximizing in-house treatment efficiency and employing good housekeeping practices;

iii) A list of all chemicals used in the operation of the facility; and

iv) A discussion about who will conduct a toxicity identification evaluation (TIE) (i.e., in-house or other) if one is necessary.

b) TRE Workplan Implementation.

i) The TRE workplan is implemented if whole effluent toxicity testing shows toxicity

greater than exceeds 4 TU_c or 3.85 TU_a.

ii) Accelerated testing required in § I.D.4 is considered part of the first step of implementing the TRE.

iii) The permittee must begin implementing the TRE within thirty (30) days after receipt of the accelerated testing sample results in excess of trigger levels. The permittee may use *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, EPA/833-B-99-002, August 1999, in developing a TRE workplan.

6. Quality Assurance

The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger (i.e. 25%); two dilutions above the RWC, and two dilutions below the RWC.

a) All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, EPA/821-R-02-013, October 2002, and individual test protocols.

b) In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

(i) If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.

(ii) If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days after receipt of the test results.

(iii) Control and dilution water must be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water must also be used. Receiving water may be used as control and dilution water upon notification of EPA and IDEQ. In no case may water that has not met test acceptability criteria be used for either dilution or control.

7. Reporting

a) Results of toxicity tests, including any accelerated testing conducted during the month, must be reported on the next Discharge Monitoring Report (DMR) after receiving the results of the test and with the next permit application.

b) The permittee must attach to the DMR a report that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; (3) the flow rate at the time of sample collection; and (4) the results of the effluent analysis for chemical parameters including expanded effluent testing required for the outfall as defined in §I.B.2.

c) The permittee must report test results for chronic tests in accordance with the guidance in the chapter on "Report Preparation and Test Review" found in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (the "manual"), Fourth Edition, EPA/821-R-02-013, October 2002.

E. Surface Water Monitoring Requirements

The permittee must conduct surface water monitoring in each calendar quarter of the year as indicated in Table 2, below.

1. Pollutant and water quality parameter monitoring locations

   a) Pollutant and water quality parameter monitoring must be conducted in the Snake River at monitoring stations approved by IDEQ. These monitoring points must be:

      (i) One upstream of the influence of the facility's discharge, and

      (ii) For selected pollutants and parameters, one downstream of the facility's discharge, at a point where the effluent and the Snake River are completely mixed.

   b) The permittee must seek approval from IDEQ for any changes to the surface water monitoring stations. A failure to obtain IDEQ approval of surface water monitoring stations does not relieve the permittee of the surface water monitoring requirements of this permit.

2. Sample Collection

   a) To the extent practicable, surface water sample collection must occur on the same day as effluent sample collection.

   b) All surface water samples must be grab samples.

3. Flow measurement

The flow rate must be recorded at least at the same time that other surface water parameters are sampled. See also §I.E.7, below, for the compliance schedule for establishing a stream gage.

4. Sample Analysis

Samples must be analyzed for the parameters listed in Table 2 and must achieve the method detection limits (MDLs) shown in Table 3, unless results consistently exceed a higher MDL for another approved method, in which case, that method may be used.

See notes on next page.

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Flow	mgd	daily Upstream	gage
TSS	mg/L	4/year[14] Upstream	Grab
E. coli bacteria	colonies/100 mL	4/year[14] Upstream	Grab
Dissolved oxygen	mg/L	4/year[14] Upstream	Grab
pH	standard units	4/year[14] Upstream and Downstream	Grab
Temperature	°C	4/year[14] Upstream and Downstream	Grab
Total ammonia as N	mg/L	4/year[14] Upstream and Downstream	Grab
Total Nitrate as N	mg/L	4/year[14] Upstream	Grab

Table 2
Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Total Nitrite as N	mg/L	4/year[14] Upstream	Grab
Total Phosphorus as P	mg/L	4/year[14] Upstream	Grab
Arsenic	mg/L	4/year[14] Upstream	Grab[15]
Cadmium	mg/L	4/year[14] Upstream	Grab[15]
Chromium	mg/L	4/year[14] Upstream	Grab[15]
Copper	mg/L	4/year[14] Upstream	Grab[15]
Cyanide	mg/L	4/year[14] Upstream	Grab[15]
Lead	mg/L	4/year[14] Upstream	Grab[15]
Mercury	mg/L	4/year[14] Upstream	Grab[15]
Nickel	mg/L	4/year[14] Upstream	Grab[15]
Silver	mg/L	4/year[14] Upstream	Grab[15]
Zinc	mg/L	4/year[14] Upstream	Grab[15]
Molybdenum	mg/L	4/year[14] Upstream	Grab[15]
Selenium	mg/L	4/year[14] Upstream	Grab[15]
Hardness	mg/L	4/year[14] Upstream	Grab

[14] 4/year means once in each calendar quarter.
[15] Arsenic, cadmium, chromium, copper, cyanide, lead, nickel, silver, zinc, molybdenum, and selenium must be analyzed as dissolved. Mercury must be analyzed as total.

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Flow	---
TSS	---
E. coli Bacteria	---
Dissolved Oxygen	2.0
pH	---

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Temperature	---
Total Ammonia as N	0.01
Total Kjeldahl Nitrogen	0.05
Total Nitrate as N	0.02
Total Nitrite as N	0.01
Total Phosphorus as P	0.01
Arsenic	0.0005
Cadmium	0.00005
Chromium	0.0001
Copper	0.0005
Cyanide	0.005
Lead	0.0006
Mercury	0.0002
Nickel	0.0005
Silver	0.0001
Zinc	0.0018
Molybdenum	0.0003
Selenium	0.0006
Hardness (as $CaCO_3$)	0.001

5. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under § II.C, "Quality Assurance Plan."

6. Surface water monitoring results for the previous calendar year must be submitted to EPA by January 31of each year. At a minimum, the report must include the following:

   a) Dates of sample collection and analyses.

   b) Results of sample analysis.

   c) Relevant quality assurance/quality control (QA/QC) information.

7. Reporting Stream Flow Data from the Stream Gage in the Snake River at Twin Falls

   a) The permittee must record daily flows in the Snake River at the established stream gage.

b) By January 31 of each year, the permittee must submit to EPA streamflow data for the previous calendar year.

II. Special Conditions

A. Pretreatment Requirements

1. Implementation

The permittee must implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original approved pretreatment program submission, any program amendments submitted thereafter and approved by EPA, and the general pretreatment regulations (40 CFR Part 403) and any amendments thereof. At a minimum, the permittee must carry out the following activities:

a) Enforce prohibitive discharge standards as set forth in 40 CFR §403.5(a) and (b), categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act (where applicable), and local limitations and BMPs developed by the permittee in accordance with 40 CFR §403.5(c), whichever are more stringent and are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations must be defined as pretreatment standards under Section 307(d) of the Act.

b) Implement and enforce the requirements of the most recent and EPA-approved portions of local law and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.

c) Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee must notify these users of applicable pretreatment standards in accordance with 40 CFR §403.8(f)(2)(iii).

d) Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents must contain, at a minimum, conditions identified in 40 CFR §403.8(f)(1)(iii), including Best Management Practices, if applicable. The permittee must follow the methods described in its implementation procedures for issuance of individual permits.

e) Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment standards and requirements. The permittee must retain all records relating to its pretreatment program activities for a minimum of three years, as required by 40 CFR §403.12(o), and must make such records available to EPA upon request. The permittee must also provide public access to information considered effluent data under 40 CFR Part 2.

f) Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Multi-Jurisdictional Agreement (MJA) that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

g) Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A complete inspection of all SIUs and sampling of all SIUs' effluent must be conducted at least annually.

h) Require SIUs to conduct wastewater sampling as specified in 40 CFR §403.12(e) or (h). Frequency of wastewater sampling by the SIUs must be appropriate for the character and volume of the wastewater but no less than twice per year. Sample collection and analysis must be performed in accordance with 40 CFR §403.12(b)(5)(ii) through (v) and 40 CFR Part 136. In cases where the Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the permittee must require the User to submit documentation to determine compliance with the Standard. If the permittee elects to conduct all non-domestic user monitoring for any SIU instead of requiring self-monitoring, the permittee must conduct sampling in accordance with the requirements of this paragraph, and the requirements of 40 CFR §403.12(g)(2).

i) Enforce and obtain remedies for any industrial user noncompliance with applicable pretreatment standards and requirements. This must include timely and appropriate reviews of industrial reports to identify all violations of the user's permit, the local ordinance, and federal pretreatment standards and requirements. Once violations have been uncovered, the permittee must take timely and appropriate action to address the noncompliance. The permittee's enforcement actions must follow its EPA-approved enforcement response procedures.

j) Publish, at least annually, in a newspaper or newspapers of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR §403.8 (f)(2)(viii).

k) Maintain adequate staff, funds and equipment to implement its pretreatment program.

l) Conduct an analysis annually to determine whether influent pollutant loadings are approaching the maximum allowable headworks loadings calculated in the permittee's most recent local limits calculations. Any local limits found to be inadequate by this analysis must be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.

2. Spill Prevention and Slug Discharges

The permittee must implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users.

a) Control mechanisms for SIUs must contain requirements to control slug discharges if determined by the POTW to be necessary [40 CFR §403.8(f)(1)(iii)(B)(6)].

b) SIUs must be evaluated for the need for a plan or other action to control slug discharges within 1 year of being designated an SIU.

c) SIUs must notify the POTW immediately of any changes at their facilities affecting the potential for a slug discharge [40 CFR §403.8(f)(2(vi)].

3. Enforcement Requirement

Whenever EPA finds, on the basis of any available information, that the owner or operator of any source is introducing a pollutant into the POTW in violation of national pretreatment standards, including prohibited discharges, local limits, or categorical standards, or is causing interference or pass through, EPA may notify the owner or operator of the POTW of such violation. If, within 30 days after EPA sends such notification to the POTW, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in Section 309(f) of the Clean Water Act.

4. Modification of the Pretreatment Program

If the permittee elects to modify any components of its pretreatment program, it must comply with the requirements of 40 CFR §403.18. No substantial program modification, as defined in 40 CFR §403.18(b), may be implemented prior to receiving written authorization from EPA.

5. Local Limits Evaluation

Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation pursuant to 40 CFR §403.5(c)(1). The study must take into account water quality in the receiving stream, inhibition levels for biological processes in the treatment plant, and sludge quality goals. The study must address at least the following pollutants: arsenic, 5-day biochemical oxygen demand, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, total suspended solids, and zinc and any other pollutants of concern. The permittee must address total ammonia as N if the POTW accepts non-domestic discharges of ammonia. Submitted results of the study must include proposed local limits, maximum allowable headworks loadings, all supporting calculations, and all assumptions.

6. Control of Undesirable Pollutants

The permittee must not allow introduction of the following pollutants into the publicly owned treatment works (POTW):

a) Pollutants which will create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140º F or 60º C using the test methods specified in 40 CFR §261.21;

b) Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0, unless the POTW is designed to accommodate such discharges;

c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW (including the collection system) resulting in interference;

d) Any pollutant, including oxygen demanding pollutants (e.g. BOD_5, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e) Heat in amounts which inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40º C (104º F) unless the Regional Administrator, upon request of the POTW, approves alternate temperature limits;

f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

7. Requirements for Industrial users

The permittee must require any industrial user of its treatment works to comply with any applicable requirements in 40 CFR Parts 403 through 471.

8. Sampling Requirements

a) Parameters: The permittee must sample influent and effluent from the POTW for arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc. Metals must be analyzed and reported as total metals. If the POTW accepts ammonia from industrial sources, the permittee must also sample the POTW influent and effluent for ammonia. The permittee must sample sludge for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, percent solids, selenium and zinc.

b) Frequency: Sampling must be conducted twice per year: once in April and once in October.

c) Sampling Locations and Sample Type: The permittee must sample as described in Table 4. To the extent that the timing of effluent sampling coincides with sampling required for whole effluent toxicity testing under paragraph insert paragraph number, these results will satisfy the requirements of that paragraph.

Table 4

Pretreatment Monitoring Requirements

Wastestream	Sample Type	Frequency
Influent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Effluent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Sludge	Grab	Once, during the same time period that influent and effluent samples are being taken

1. Influent and effluent samples for cyanide must be collected and analyzed as required in paragraph.8.h of this part.

d) Analytical Methods: For influent and effluent pretreatment sampling, the permittee must use EPA-approved analytical methods that achieve the method detection limits (MDLs) in Table 3, above, unless higher minimum detection limits are approved by EPA. Requests for higher MDLs for pretreatment monitoring must be submitted in writing to the Pretreatment Coordinator at the address in paragraph 9, below.

e) Sludge Sampling: Sludge samples must be taken as the sludge leaves the dewatering device or digesters.

f) Sludge Reporting: Metals concentrations in sludge must be reported in mg/kg, dry weight.

g) Reporting Results: Analytical results for each day's samples must be reported separately. Sample results must be submitted with the pretreatment annual report required in § II.A.9, below.

h) Cyanide sampling: Influent and effluent sampling for cyanide must be conducted as follows. Eight discrete grab samples must be collected over a 24-hour day. Each grab sample must be at least 100 ml. Each sample must be checked for the presence of chlorine and/or sulfides prior to preserving and compositing (refer to Standard Methods, 4500-CN B). If chlorine and/or sulfides are detected, the sample must be treated to remove any trace of these parameters. After testing and treating for the interference compounds, the pH of each sample must be adjusted, using sodium hydroxide, to 12.0 standard units. Each sample can then be composited into a larger container which has been chilled to 4 degrees Celsius, to allow for one analysis for the day.

9. Pretreatment Report

a) The permittee must submit an annual report pursuant to 40 CFR §403.12(i) that describes the permittee's pretreatment program activities over the period October 1 of the previous year to September 30 of the current year. This report must be submitted to the following address no later than November 1 of each year:

Pretreatment Coordinator
U.S. Environmental Protection Agency
Region 10, OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

b) The pretreatment report must be compiled following the Region 10 Annual Report Guidance. At a minimum, the report must include:

(i) An updated non-domestic user inventory, including those facilities that are no longer discharging (with explanation), and new dischargers, appropriately categorized and characterized. Categorical users should have the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.

(ii) Results of wastewater and sludge sampling at the POTW as specified in Part II.A.8 (above).

(iii) Calculations of removal rates for each pollutant for each day of sampling.

(iv) An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality. This should include a comparison between influent loadings and the most recent relevant maximum allowable headworks loadings calculated for the treatment plant.

(v) Status of program implementation, including:

(a) Any planned modifications to the pretreatment program that have been approved by EPA, including staffing and funding updates.

(b) A description of any interference, upset, or NPDES permit violations experienced at the POTW which were directly or indirectly attributable to non-domestic users, including:

(01) Date & time of the incident

(02) Description of the effect on the POTW's operation

(03) Effects on the POTW's effluent and biosolids quality

(04) Identification of suspected or known sources of the discharge causing the upset

(05) Steps taken to remedy the situation and to prevent recurrence

(vi) Listing of non-domestic users inspected and/or monitored during the report year with dates and an indication compliance status.

(vii) Listing of non-domestic users planned for inspection and/or monitoring for the coming year along with associated frequencies.

(viii) Listing of non-domestic users whose permits have been issued, reissued, or modified during the report year along with current permit expiration dates.

(ix) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards during the report year as required in 40 CFR §403.8(f)(2)(iii).

(x) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.

(xi) Status of enforcement activities including:

(a) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:

(01) Summary of the violation(s).

(02) Enforcement action taken or planned by the permittee.

(03) Present compliance status as of the date of preparation of the pretreatment report.

(b) Listing of those users in significant noncompliance during the report year as defined in 40 §CFR 403.8(f)(2)(viii) and a copy of the newspaper publication of those users' names.

(c) EPA may require more frequent reporting on those users who are determined to be in significant noncompliance.

B. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E of this permit (Proper Operation and Maintenance), within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that an operations and maintenance plan for the wastewater treatment facility has been developed and implemented. The plan shall be retained on site and made available on request to EPA and IDEQ.

C. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. Any existing QAPs may be modified for compliance under this section. The QAP must be completed within 90 days after the effective date of the final permit. Within 90 days after the

effective date of the permit, the permittee must provide written notice to EPA and IDEQ that the QAP has been developed or updated and is being implemented.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.

2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.

3. At a minimum, the QAP must include the following:
   a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
   b) Map indicating the location of each sampling point.
   c) Qualification and training of personnel.
   d) Name, address and telephone number of the laboratory used by or proposed to be used by the permittee.

4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.

5. Copies of the QAP must be kept on site and made available to EPA and/or IDEQ upon request.

D. Best Management Practices Plan

1. The permittee must maintain and update as needed the Best Management Practices Plan (BMP Plan), which was implemented under the last permit.

2. Within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that the BMP plan has been updated and is being implemented.

3. The BMP Plan must be retained on site and made available to EPA and IDEQ upon request.

4. The BMP Plan must include pollution prevention measures which prevent, or minimize, the potential for the release of nutrients to the Middle Snake River. The BMP must be consistent with the Municipal Industry Management Actions of the Middle Snake River Watershed Management Plan (Table 30). The description of management controls must address, to the extent practicable, the following minimum components:
   a) Research, develop and implement a public information and education program;
   b) Water conservation;
   c) Land application of treated effluent;
   d) Land application of biosolids;

e) Storm water pollution prevention; and

f) Operational practices that can be used to reduce nutrient levels in the effluent.

E. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the final permit. At a minimum the plan must include mechanisms to:

   a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;

   b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

   c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;

   d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and

   e) Provide for continued operation during emergencies.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 180 days after the effective date of the final permit. Any existing emergency response and public notification plan may be modified for compliance with this section.

F. Modification for Cause

This permit may be modified for cause in compliance with 40 CFR §122.62. Cause for modification includes, but is not limited to, new information which was not available at the time of permit issuance and which would have justified the application of different permit conditions at the time of issuance.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with § III.C ("Monitoring Procedures"). The permittee must report all additional monitoring in accordance with § III.D ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

1. Paper Copy Submissions

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of § V.E of this permit ("Signatory Requirements"). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement, with copies to IDEQ at the following addresses:

US EPA Region 10
Attn: ICIS Data Entry Team, OCE-133
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301

2. Electronic submissions

If, during the period when this permit is effective, EPA makes electronic reporting available, the permittee may, as an alternative to the requirements in §III.B.1, above, submit reports monthly, electronically by the 10th day of the following month, following guidance provided by EPA. The permittee must certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. ("Signatory Requirements"). The permittee must retain the legible originals of these documents and make them available, upon request, to the EPA Region 10 Director, Office of Compliance and Enforcement and to IDEQ.

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by EPA as alternate test procedures under 40 CFR §136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or IDEQ at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
   a) any noncompliance that may endanger health or the environment;
   b) any unanticipated bypass that exceeds any effluent limitation in the permit (See § IV.F., "Bypass of Treatment Facilities");
   c) any upset that exceeds any effluent limitation in the permit (See § IV.G., "Upset Conditions"); or
   d) any violation of a maximum daily or instantaneous maximum effluent limitation for applicable pollutants listed in the permit to be reported within 24 hours (See § I.B).
   e) any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1, above. The written submission must contain:
   a) a description of the noncompliance and its cause;
   b) the period of noncompliance, including exact dates and times;
   c) the estimated time noncompliance is expected to continue if it has not been corrected; and
   d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

e) if the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.

4. Reports must be submitted to the addresses in Part III.B ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Part III.G.2 of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

I. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and IDEQ in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

3. For the purposes of this section, adequate notice must include information on:

   a) The quality and quantity of effluent to be introduced into the POTW, and

   b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

   US EPA Region 10
   Attn: NPDES Permits Unit Manager
   1200 6th Avenue, Suite 900,
   OWW-130
   Seattle, WA 98101-3140

J. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule in § I.C of this permit must be submitted no later than each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $37,500 per day for each violation).
2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500). Pursuant to 40 CFR §19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $177,500).
3. Criminal Penalties:
    a) Negligent Violations. The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.
    b) Knowing Violations. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c) Knowing Endangerment. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

d) False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs F.2 and 3, below.

2. Required Notice.

   a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.

   b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G ("Twenty-four Hour Notice of Noncompliance Reporting").

3. Prohibition of bypass.

   a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:

      (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

      (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

      (iii) The permittee submitted notices as required under paragraph 2 of this Part.

4. The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a) An upset occurred and that the permittee can identify the cause(s) of the upset;

   b) The permitted facility was at the time being properly operated;

   c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and

   d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in Part III.I.4. and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §122.62, §122.64, or §124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted

by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and IDEQ, within the time specified in the request, any information that EPA or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or IDEQ, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or IDEQ, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and IDEQ must be signed and certified as follows.

1. All permit applications must be signed as follows:
   a) For a corporation: by a responsible corporate officer.
   b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
   c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a) The authorization is made in writing by a person described above;
   b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ.

3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2 must be submitted to the Director of the Office of Compliance and Enforcement and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this Part must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; IDEQ; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance are mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. "Act" means the Clean Water Act.
2. "Administrator" means the Administrator of the EPA, or an authorized representative.
3. "Average monthly effluent limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
4. "Average weekly effluent limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
5. "Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Composite" - see "24-hour composite".
8. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
9. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
10. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
11. "DMR" means discharge monitoring report.
12. "EPA" means the United States Environmental Protection Agency.
13. "Geometric Mean" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
14. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
15. "IC_{25}" means the inhibition concentration, the concentration of the effluent, that would cause a 25 percent reduction in a non-lethal biological measurement, e.g. reproduction or growth)

16. "IDEQ" means the Idaho Department of Environmental Quality.

17. "Interference" is defined in 40 CFR 403.3.

18. "LC_{50}" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.

19. "Maximum daily effluent limitation" means the highest allowable "daily discharge."

20. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

21. "Minimum Level (ML)" means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.

22. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.

23. "Pass Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

24. "POTW" means publicly owned treatment works, i.e. the permittee.

25. "QA/QC" means quality assurance/quality control.

26. "Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

27. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

28. "24-hour composite" sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

29. "TU_a" ("Acute Toxic Unit") is a measure of acute toxicity. TU_a is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC_{50}")

30. "TU_c "(Chronic toxic unit) is a measure of chronic toxicity. TU_c is the reciprocal of the effluent concentration that causes 25 percent inhibition by the end of the chronic exposure period (i.e., 100/"IC_{25}").

31. "USGS" means United State Geological Survey.

32. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Appendix A

Pollutant Trading In The Upper Snake Rock Subbasin

The permittee is authorized to buy or sell total phosphorus reduction credits pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) ("the Guidance"); the Middle Snake River Watershed Management Plan, Phase 2 TMDL, Total Phosphorus, December 2002; Upper Snake Rock Watershed Management Plan, Modification, August 2005; and the conditions contained within this permit.

The permittee may engage in pollutant trading for average monthly discharges of total phosphorus. Trading is not allowed to adjust discharges to meet average weekly limits of total phosphorus or for other pollutants. This permit only authorizes trading with point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading. Trading with non-point sources is not authorized.

1. How to Buy or Sell Credits for Pollutant Trading

The City of Twin Falls may voluntarily reduce its "base" average monthly phosphorus discharge (in lbs/day) by a particular amount below its effluent limit for a particular calendar month. This reduction must be verified through effluent monitoring using an EPA approved monitoring method. This reduction creates a "credit" that may be transferred to other eligible point sources in this watershed. Section I.B of this permit contains the average monthly phosphorus limit.

The City may buy available phosphorus credits (in lbs/day for a specified month) from an eligible point source in the same watershed. Acquiring such credits allows the facility to adjust the amount of its reported average monthly phosphorus discharge for that month by subtracting the amount of purchased credits from its actual discharge amount. The point source seller's effective discharge is increased for that month by adding the credit amount to its reported average monthly phosphorus discharge so that its adjusted discharge is higher, but no higher than its average monthly limit.

2. Timing of the Water Quality Trade

Credits can only be traded during the calendar month in which the credit was generated.

3. Procedure for Transferring Credit

To create a valid transfer of a credit, the City of Twin Falls and an authorized buyer (or seller) must complete a Trade Notification Form and submit it to the Idaho Clean Water Cooperative ("the Cooperative") or, in its absence, IDEQ by the last day of the month following generation of the credit. The form must include the following minimum information:

Name of Seller
NPDES Permit Number
Name and telephone number of authorized representative
Amount of Credit to be sold (in lbs/day)
Month in which the Credit is generated
Dated signature of the Seller's authorized representative.

Name of Buyer:
NPDES Permit Number
Amount of Credit to be purchased (in lbs/day)
Month for which the Credit is bought
Dated signature of the Buyer's authorized representative.

4. Reporting Trades by NPDES Permit Holders to EPA and IDEQ

Each permittee must submit to EPA (with copies to IDEQ) a phosphorus-specific discharge monitoring report (DMR) and the Trade Summary Report provided by the Cooperative. The Trade Summary Report must provide (A) the permittee's actual average monthly phosphorus discharge (lbs/day); (B) the total amount of credits (lbs/day) bought, if any; (C) the total amount of credits (lbs/day) sold, if any; and (D) the permittee's adjusted discharge (lbs/day), which is equal to A - B + C. The Permittee must record both (A) and (D) on the DMR.

All DMRs including the phosphorus-specific DMR must be submitted in accordance with Section III.B of the permit. The phosphorus-specific DMR which reports a trade must specify the actual phosphorus discharge and the "adjusted discharge" and must be submitted by the 10th day of the second month following sampling.

If the buyer and seller submit a Trade Notification Form to the Cooperative but the credits are not available for transfer to the buyer, then the trade is not recorded in the Trade Tracking System and the buyer is subject to noncompliance penalties for any actual discharge over its average monthly limit. Furthermore, once the Trade Notification Form is submitted to the Cooperative and the trade recorded in the Trade Tracking System, the seller is responsible for having sufficient credits to sell in the transaction. If it does not, the seller is subject to noncompliance penalties.

5. Recordkeeping System

No trade is valid unless it is recorded through the Trade Tracking System operated by the Cooperative (or alternatively, IDEQ) and meets all the applicable conditions in this permit. The Cooperative records all trades and generates a monthly summary report of all trades valid for each calendar month. The Trade Notification Form must be submitted to the Cooperative by the last day of the month following the generation of the credit in order for it to be recorded in the Trade Tracking System in time to be reported in the monthly Trade Summary Report and submitted with DMR postmarked by the 10th of the second month following the generation of the credit.

When	*What*
Monitoring month: 28—31 days	Monitoring is completed
Next month: by the 10th	Submit DMR to EPA with actual effluent measured
Next month: by the last day	Submit to Idaho Clean Water Cooperative the Trade Notification Form
Second Month: by the 10th	Submit to EPA phosphorus-specific DMR with adjusted discharge & Trade Summary Report

6. Termination of Trading

IDEQ monitoring of the water quality of the receiving streams will be used to determine if localized impacts are occurring as a result of trades. IDEQ will inform the Cooperative and the permittees affected if trading between specific facilities must be restricted because of localized impacts. Such restrictions may reduce the amount of credits available for transfer to prospective buyers within the affected reach.

EPA EXHIBIT # 2

ADMINISTRATIVE RECORD # 53

Response to Comments

City of Twin Falls NPDES Permit
September 2009

Introduction

A period for public comment on the draft permit was provided from May 15 through June 15. 2009. In response to a May 29, 2009, request from the City of Twin Falls, EPA extended the comment period to July 15, 2009. Three individuals, representing Idaho Conservation League, Idaho Department of Environmental Quality (IDEQ), and the City of Twin Falls, submitted written comments; they are listed below.

Commenters

1 Justin Hayes, Program Director, Idaho Conservation League (ICL)
2 Marti Bridges, TMDL Program Manager, IDEQ
3 Travis Rothweiler, Assistant City Manager, City of Twin Falls

This document addresses the concerns raised in those comments by grouping together those on similar topics.

At the outset, it is important to clarify that a Fact Sheet (FS) provides background information for the development of a draft permit; it is a final document when it is made public during the public comment period. As such, it is not subject to correction or revision. Where appropriate, we will acknowledge in this Response to Comments any errors or corrections to the information in the Fact Sheet; however, the Fact Sheet will not be changed. This Response to Comments document serves as a supplement to and, in some cases, a correction to the Fact Sheet.

State §401 Certification

On September 14, 2009, EPA received from IDEQ its final §401 water quality certification of the proposed final permit. In it, the State certified the following:

1. Instream Water Quality Monitoring at two sites approved by IDEQ:

    a. Upstream: flow, total suspended solids (TSS), *E. coli*, dissolved oxygen, pH, temperature, total ammonia as nitrogen, total nitrate as nitrogen, total nitrite as nitrogen, total phosphorus, arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, zinc, molybdenum, selenium, and hardness.

    b. Downstream: total ammonia as nitrogen.

2. Compliance Schedule for Total Suspended Solids Interim Requirements

    a. Interim Limits: 30 mg/L average monthly limit and 45 mg/L average weekly limit.

    b. By July 1, 2010, the Chemical Enhancement Primary Treatment component will be completed.

    c. By July 1, 2011, a facility plan will be developed by the City to address the TSS water quality based effluent limits (WQBELs) under the NPDES permit.

    d. By July 1, 2012, a design alternative and bid will be developed by the City to address the TSS WQBEL

    e. By July 1, 2014, facility upgrades will be in operation.

    f. The City of Twin Falls shall notify EPA and DEQ that it has achieved the interim requirements set forth above within 30 days of their completion.

3. Pollutant Trading

The City may buy and sell phosphorus credits to other eligible point sources in the Upper Snake Rock Subbasin in accordance with DEQ's *Pollutant Trading Guidance* (November 2003 draft); the Upper Snake Rock TMDL Modification (Approved 2005); and the conditions contained with the NPDES permit.

EPA has incorporated these conditions in the final permit.

Table of Contents

I. Pollutant Trading

A. Rules and Guidance governing pollutant trading

1. **Comment**: Idaho Conservation League (ICL) asserted that there is not sufficient regulation and formal federal and state guidance to assure that trading will protect water quality. Citing IDAPA 58.01.02.054, it says that the regulation is inadequate to provide authority and direction needed to comply with the Clean Water Act. It further asserted that Idaho's 2003 draft Pollutant Trading Guidance has deficiencies and can't provide the regulator framework for pollutant trading in Idaho. It says that it's important that trading be done in a transparent and documented manner, implying that the current situation does not support that.

2. **Response**: EPA disagrees with the claim that the regulations and guidance are inadequate. According to Marti Bridges, IDEQ's Pollutant Trading Coordinator, the State of Idaho Department of Environmental Quality Pollutant Trading Guidance (November 2003 draft) ("the Guidance") is the current guidance governing pollutant trading in Idaho. In 2007, we determined that the Guidance provided sufficient direction to implement a trading program in the mid-Snake watershed; in November 2007, EPA issued two general permits for aquaculture facilities and associated fish processors incorporating the provisions of the Guidance. The Guidance, along with the requirements of Appendix A of the permit, which include reporting and recordkeeping requirements, provide an enforceable, transparent trading framework.

The comments on the amount of detail in the State rules and deficiencies in the guidance need to be directed to the State.

3. **Action**: We made no change in the permit.

B. Local impacts of increased discharge from buyers of credits

1. Comment: ICL asserts that the draft guidance doesn't adequately ensure that the buyer of credits does not violate water quality standards in the receiving body at the point or discharge.

2. Response: The pollutant trading language in the draft permit was written in consultation with IDEQ to ensure consistency with IDEQ's Pollutant Trading Guidance, including its Appendix C -- Middle Snake River. It was originally written in 2007 when EPA wrote the general permits for aquaculture facilities and associated fish processors; similar language is included in the Twin Falls permit since Twin Falls is expected to be a seller of phosphorus credits to some of the aquaculture facilities. In 2007, IDEQ encouraged EPA to provide for trades between any eligible buyers and sellers as long as the ambient water quality between the parties is not adversely impacted. IDEQ said that its annual monitoring of the Snake River should reveal any ambient water quality problems resulting from trading between facilities (see page 9 of the Guidance:

"Monitoring will be conducted to verify that the limits on trading are supporting the maintenance of desired water quality"). Any ambient problems found in a segment of stream would be used by the State to modify the Guidance to disallow trading in the affected segment, since trading would not comply with the Guidance (see page 4 of the Guidance: "Trades must be implemented so that the overall water quality of the watershed is protected. …localized adverse impacts to water quality are not allowed.")

3. Action: We did not change the permit.

C. Twin Falls as a Buyer Rather than Only a Seller

1. Comment: IDEQ pointed out that the City of Twin Falls would also be eligible to buy credits under Idaho's Pollutant Trading Guidance.

2. Response: EPA had understood that the City wanted to sell phosphorus credits, hence, the language in the draft permit describing the City as a seller. The City has recently indicated its desire to buy TSS credits, trading of which is not currently allowed under the Pollutant Trading Guidance. Though the permit will continue to restrict trading to phosphorus, we changed Appendix A to allow the City to buy credits.

3. Action: We added paragraphs in section 1 of Appendix A.

D. Responsibilities of Buyers and Sellers

1. Comment: EPA Region 10 Office of Compliance and Enforcement suggested added language to further clarify compliance responsibilities of buyers and sellers.

2. Response: We agreed that the clarification would be helpful.

3. Action: We added the following paragraph in section 4 of Appendix A:

> *If the buyer and seller submit a Trade Notification Form to the Cooperative but the credits are not available for transfer to the buyer, then the trade is not recorded in the Trade Tracking System and the buyer is subject to noncompliance penalties for any actual discharge over its average monthly limit. Furthermore, once the Trade Notification Form is submitted to the Cooperative and the trade recorded in the Trade Tracking System, the seller is responsible for having sufficient credits to sell in the transaction. If it does not, the seller is subject to noncompliance penalties.*

E. Trading with Non-point Sources

1. Permit doesn't adequately restrict trading with non-point sources

a. **Comment:** ICL raised a concern about the potential to trade with non-point sources, which lack NPDES permits. It claims that they are not subject to a regulatory framework that provides "transparency and accountability to comply with Clean Water Act requirements." It asserts that, although the Fact Sheet "gives the impression that trades authorized by this permit will only be between other point sources," such a limitation is not in the draft NPDES permit.

b. **Response:** Both the Fact Sheet (on page 23) and the draft permit (on page 37) restrict trading to other eligible point sources. If the State modifies the Guidance to provide for trades with non-point sources, EPA would need to modify the permit (with public process) before the City would be allowed to participate in such trades.

c. **Action:** Additional statements were added in §I.B.1 of the permit and the second introductory paragraph of Appendix A to emphasize that trading with non-point sources is not authorized by the permit.

2. 2003 Draft Guidance doesn't allow trading with non-point sources

a. **Comment:** IDEQ pointed out that the current version of the Pollutant Trading Guidance does not provide for trading with non-point sources because credits and best management practices have not been developed and published for public comment.

b. **Response:** The permit does not allow trading with non-point sources in large part because the State's Pollutant Trading Guidance does not provide for it at this time.

c. **Action:** No change was made to the permit.

F. Trading with Point Sources in Stream Reaches without Established Ratios

1. **Comment:** IDEQ also made the point that the current version of the trading guidance does not allow trading with point sources in other stream reaches (other than those on the Snake River between RM 587 and RM 638.5) for which trading ratios have not yet been developed.

2. **Response:** The draft permit did not specify the locations of eligible trading partners, though it did refer only to those eligible in the 2003 version of the Pollutant Trading Guidance, which included those in the reach specified above. In order to clarify the trading partners, we've now specified that the eligible trading partners are point sources in segments 1, 2, and 3 in the Middle Snake River that have NPDES permits that authorize trading.

3. **Action:** We made this change in §I.B.1 of the permit and in Appendix A.

G. Use of 2003 Draft Guidance to determine amount of credit available

4. **Comment:** ICL asserted that relying on five-year-old draft guidance "is not acceptable. Our organization has not had the opportunity to comment on this matter in light of recent developments (such as current water quality status, trends and TMDL implementation" and new permits for the aquaculture facilities in this segment of the Snake River.

5. **Response:** The commenter did not put forth a suggested alternative for guiding the determination of credits available. The issuance of the aquaculture permits was anticipated in the draft guidance, where 17 aquaculture facilities and the City of Twin Falls were listed with their associated trading ratios. Therefore, their issuance in 2007 does not constitute "a very significant modification of circumstances."

In addition to the public comment period on the Twin Falls permit, the public also had the opportunity to provide input in the trading requirements during the development of the aquaculture permits, which included nearly identical trading provisions to those in this permit. For those permits, EPA provided two comment periods: June 19 -- September 29, 2006, and June 7 -- July 23, 2007 in which the public was invited to provide input. ICL did not provide comments during those public comment periods.

6. **Action:** We made no change in the permit.

H. Use of Future Versions of the Pollutant Trading Guidance

1. Comment: IDEQ asked that we allow future changes in the Guidance to govern pollutant trading under this permit and asked that the permit reflect options to trade other pollutants which might be allowed in the future.

2. Response: If we were to allow future versions of the Pollutant Trading Guidance to automatically have effect in the permit, we would be allowing a change in the permit without following the process required in federal regulations. Such a change in the permit conditions is not a minor change, as defined in 40 CFR § 122.63, so EPA would need to provide public notice and process the change in the Guidance as a major permit modification. Instead, EPA is referencing the existing version of the Guidance and will consider reopening and modifying the permit if modifications are made to the Guidance and subsequent permit conditions would not result in the permittee causing exceedances of water quality standards or corresponding TMDL goals. EPA will provide a public comment period if it proposes to modify the permit to incorporate subsequent versions of the Guidance.

3. Action: EPA added a section clarifying that the permit may be modified for cause at §II.F.

I. Development of Reduction Credits

1. Comment: ICL asserted that EPA "must develop reduction credits and trading ratios that reflect current water quality needs and permit developments."

2. Response: It is the State's responsibility to develop water quality standards and strategies, including TMDLs and trading programs, to achieve and maintain water quality standards. In this instance, EPA is incorporating the provisions of the Guidance and the TMDL developed by the State, both of which have been reviewed by EPA. Therefore, we disagree with the commenter that we should be independently developing credits and ratios. The final permit was certified by IDEQ as meeting water quality standards.

3. Action: We did not change the permit.

J. Specifying the Pollutant that can be Traded

1. Phosphorus should be specified

a. **Comment:** IDEQ requested that we should spell out in Appendix A that only total phosphorus can be traded at this time. It also asked that we make clear that "if other pollutants become available for trading during the term of the permit, through IDEQ's public process as spelled out in our recommended trading language, that the City of Twin Falls WWTP is authorized to participate."

b. **Response:** We specified phosphorus as the pollutant being traded seven times in the two pages of Appendix A in the draft permit. In response to comments, we have added text as described elsewhere in this section that includes further references to phosphorus as the pollutant eligible to be traded. Furthermore, both the permit in §I.B.1 and the introduction to Appendix A state that no other pollutants are eligible to be traded.

As discussed in §I.G, above, the permit cannot allow changes in the requirements, such as those presented in a change in the Guidance, without modification and a public comment period. Therefore, we cannot include the requested language that would refer to and allow compliance with revised Guidance.

c. **Action:** We did not change the permit.

7. The City should be allowed to trade TSS

a. **Comment:** The City asked for Appendix A of the permit to authorize TSS trading, pending approval of the TSS trading program by DEQ and EPA.

b. **Response:** As pointed out in §I.G. above, we cannot prospectively include provisions in a permit that depend on future changes in the Guidance.

If the State modifies the Guidance to provide for trading TSS, we would consider modifying the permit to include such provisions.

c. **Action:** No change was made in the permit.

K. Add Examples of Forms in Appendix A

1. Comment: IDEQ asked that EPA provide example forms in the permit for reporting trades to EPA and to IDEQ.

2. Response: EPA does not require what forms must be used in reporting trades to the Idaho Clean Water Cooperative. The report of trades to EPA and IDEQ will be on Discharge Monitoring Reports, pre-prints of which will be sent to the permittee after the permit is issued, and on a Trade Summary Report, which is an Idaho Clean Water Cooperative document. The reporting of trades will be on a Trade Notification Form containing at least the information listed in §3 of Appendix A of the permit. EPA is not dictating what the form must look like or other information that the Idaho Clean Water Cooperative may request.

3. Action: We did not change the permit.

II. Effluent Limits

A. Total Suspended Solids (TSS)

1. Application of Wasteload Allocation

a. **Comment:** The City of Twin Falls asked EPA to apply the TSS wasteload allocation from the Upper Snake Rock Total Maximum Daily Load (TMDL) as an annual limit in the permit, noting that the "City's effluent provides a dilution source to the Snake River relative to the TSS target in the TMDL.

b. **Response:** EPA is required by 40 CFR §122.45(d)(2) to apply average weekly and average monthly discharge limitations for POTWs. EPA Region 10 policy has been to apply WLAs in TMDLs directly as average monthly limits (see the Idaho Aquaculture permits for a recent nearby example).

In response to the City's request before the public comment period and with the agreement of IDEQ, we agreed to use the TSS WLA (in tons/year) as the long term average target level of the pollutant, applying it as an annual average. We calculated the average monthly and average weekly limits from that long-term average, using the process in the *Technical Support Document for Water Quality-based Toxics Control* as documented in the Fact Sheet. This made those limits somewhat higher than our previously proposed limits as a result of that process.

Applying an annual limit would mean that though there were high levels that might be causing a problem, we'd have to wait until the end of the year to see

if it was really a violation of the annual limit. It would hinder our ability to respond in real time to problems when they are occurring. In addition, the State has certified the limits applied using the process described above. Consequently, we have determined that applying an annual limit would not provide the protection anticipated in the TMDL.

c. **Action:** We did not change the permit.

2. **TSS Compliance Schedule**

a. **Extending the TSS Compliance Schedule**

(1) Comment: *The City requested another year on the compliance schedule for TSS to allow time to develop a trading program for TSS. It asked for all milestones to be moved back one year and that the final compliance date be July 1, 2015.*

(2) Response: *As stated above in §§I.G& I, we cannot allow TSS trading in the permit because it is not provided for in the current version of the Guidance. As proposed, the five year time period originally requested by the City is adequate to meet the limitations. This schedule was developed in cooperation with the City and IDEQ. If the State's Guidance is modified to allow the TSS trading that the City requests, we will consider modifying the permit to incorporate such provisions. It is quite possible that trading would allow the City to meet the limits in a shorter compliance schedule if less additional treatment is required. Therefore, we don't have sufficient information or justification for extending the previously determined compliance schedule.*

(3) Action: *We did not change the permit.*

b. **Modifying Report Dates**

(1) Comment: *IDEQ, in its final certification of the permit required that the permittee notify EPA and IDEQ within 30 days of achieving the interim requirements of the TSS compliance schedule.*

(2) Response: *EPA agrees that a 30 day period after the compliance schedule due dates is a reasonable period to complete a report on the status.*

(3) Action: *In §I.C.5 and in the Schedule of Submissions on page 5, the due dates were changed to July 31 of each year; the requirement to achieve the interim milestones by July 1 of each year remains unchanged.*

In addition, in order to comply with the requirement of 40 CFR §122.47(a)(3)(i) for the time between interim dates not to exceed one year, we have added a progress report due on July 1, 2013.

B. *E. coli* Limits

1. Compliance Schedule

a. **Comment:** The City requested a six year compliance schedule to meet the water quality based limits for *E. coli*, which are based on new State standards since the last permit was issued. The City plans to replace its UV disinfection system at the same time that it replaces the TSS system.

b. **Response:** The City submitted information showing that 3 samples out of 146 in the last year exceeded the proposed instantaneous maximum limit, though the monthly geometric means were well under the proposed monthly geometric mean limit. A review of the City's data showed that the levels of *E. coli* in the effluent measured over the last year were completely in compliance with the monthly geometric mean limit in the proposed permit and were in compliance with the proposed instantaneous maximum limit 98% of the time. We do not agree that a compliance schedule is justified by the data. With some operational adjustments, we believe that the City can avoid even the few high readings that it experienced in the past year. In our best professional judgment, we believe that operational adjustments may well be sufficient until the City replaces its system.

c. **Action:** We did not change the permit.

2. Eliminate the Maximum Daily Limit

a. **Comment:** The City asked to have the maximum daily limit for *E. coli* dropped from the permit. It cited EPA guidance that recommends, but does not require using only the geometric mean as the *E. coli* limit. It further cited the guidance that saying that the criterion of 406 organisms/100 ml assumes a heavily-used swimming beach.

b. **Response:** The "maximum daily limit to which the City refers for *E. coli* is an instantaneous maximum limit applied directly from the State water quality standards at IDAPA 58.01.02.251.01.b.ii. Region 10 policy is to apply such limits directly at the end of pipe to protect water quality and beneficial uses in the receiving water; beneficial uses include primary contact recreation at the location of the discharge. This single sample value applies to waters where primary contact recreation is a designated beneficial use; if the water were a public swimming beach, the single sample value would be 235 organisms/100 ml rather than 406 organisms/100 ml. Because *E.coli* presents a risk to human health and the receiving water is protected for primary contact recreation, it is appropriate to limit the discharge to the single sample value in the State's water quality standards, which indicates a likely exceedance of the

monthly geometric mean criterion. The State has supported both these limits in its pre-certification of the permit.

c. **Action:** We did not change the permit.

C. Ammonia Limits

1. Comment: The City requests that ammonia limits be removed from the permit because the reasonable potential calculation showed that they did not have reasonable potential to violate the water quality standards in the receiving stream. It further justifies the request by stating that it would not violate anti-backsliding requirements because other facilities in Idaho had had their ammonia limits removed because there was no reasonable potential.

2. Response: We agree that the reasonable potential calculation projected a maximum projected in-stream concentration at the edge of the mixing zone below the water quality standards. In the case of the acute standards, the maximum projected concentration was 88 % of the standard in the summer and 95% of the standard in the winter. These levels are the only ones of the pollutants we evaluated that are at all close to the standards. Furthermore, the presence of the limits in the previous permit provided the incentive for the facility to keep its ammonia effluent levels below the permit limits and protect receiving water standards. The facility has been in compliance with the limits.

Therefore, we have determined that the continuation of the limits from the last permit is warranted in order to protect the water quality standards including beneficial uses of the Snake River. We further believe that the anti-backsliding provisions of 40 CFR §122.44(l) support this decision. In addition, the State has indicated its support of these limits in its pre-certification and has indicated further interest in the impact of this pollutant in the City's discharge by requiring that the permit contain monitoring requirements for it in the Snake River both upstream and downstream of the outfall.

3. Action: We did not change the permit.

D. Chlorine Limits

1. Comment: The City requested that chlorine limits and monitoring be dropped from the permit since it "currently does not use chlorine for disinfection and will not be using it in the future."

2. Response: We applied chlorine limits in the draft permit, based on information from City staff that the chlorine disinfection system might be used as a back-up if the UV system were off-line for an extended period of time. The limits and monitoring requirements were only effective if the City was using chlorine. However, the information submitted in the City's comments on the permit indicates that it will not be using the chlorine system at all. Since that is

the case, we can drop the chlorine limit and monitoring. The permit will not authorize any discharge of chlorine.

3. Action: We deleted the chlorine limits in Table 1, the chlorine monitoring in Tables 1 and 2, the 24-hour non-compliance reporting in §I.B.3, and the chlorine analysis associated with WET testing in §I.D.2.b of the permit.

III. Low Flow Statistics for the Snake River

A. Proposal of Higher Flow Values to Represent Extreme Low River Flows

1. Comment: The City points out that the low flow statistics (1Q10 and 7Q10) on which EPA based reasonable potential analyses and trigger points for additional WET testing are from the USGS gage at Kimberly, which is about 9 miles upstream of the City's outfall. The flows also provide part of the basis for local limits evaluation, which is required in the permit. It points out that there are 70 spring flows and three coulees discharging into this reach of the Snake River between the two points. It cites low flow figures used in the 1999 "Mid-Snake" (Upper Snake Rock) TMDL, including a summary of flow date from table VII of the 1999 Mid-Snake TMDL, which is based on a baseline year of 1990-1991. It says that using the low flow statistics from the Kimberly gage will affect the next permit too, because the length of record will only be five years when the next permit is written. It requests a low flow of 1302 cfs (841.5 MGD) as the absolute low flow condition of the Snake River at Twin Falls as described in the Mid-Snake TMDL (1997) and the Upper Snake Rock TMDL (1999).

2. Response: The characterization of low flow regimes in TMDLs is on an average annual, monthly, or seasonal basis. They do not deal with the extreme low flow statistics of 7Q10, 1Q10, 1B3, or 30Q3, which represent the extreme low flow situations for which we must write permit conditions to protect water quality. We recognize that the low flow statistics at a gage at such a distance will not match exactly the flow at the City's outfall. However, the City has not provided and we do not have appropriate data with which to modify the flow statistics. We would need to have daily flow records for each of the inflows to attempt to calculate adjusted low flow statistics at the City's outfall. We cannot add average annual flows or even monthly or seasonal flows to these low flow numbers, which represent 1, 3, 7, or 30 day low flows over 3 or 10 year return periods.

With regard to the reasonable potential analyses, using the low flow statistics from the Kimberly gage, we did not find any reasonable potential to exceed water quality standards for the pollutants we evaluated: ammonia, cyanide, silver, arsenic, zinc, and nitrate-nitrogen. So the City is not being required to comply with new limits based on the use of these low flow statistics in the analysis.

With regard to WET triggers, these are not limits that might be violated, but are requirements if the effluent is showing enough toxicity (at the trigger point) that a further investigation of the cause of the toxicity is warranted. This is necessary to

provide protection for the water quality and beneficial uses in the river and should not be viewed as something to be avoided at all costs.

With regard to the evaluation of pretreatment local limits, only some parameters are limited by water quality; others will be limited by sludge or inhibition requirements. Of the current local limits, cyanide, lead, mercury, and silver are the pollutants for which the most stringent maximum allowable headworks loading is determined by water quality considerations. The reasonable potential evaluation looking at cyanide did not show a reasonable potential to violate water quality standards, so we would not anticipate that the cyanide limit would need lowering. A review of recent influent monitoring at the treatment plant shows many of the pretreatment parameters are not being detected in the influent or effluent of the POTW; of those that are being detected, the levels range from 1%--24% of the maximum allowable headworks loading (MAHL). Therefore, one would not expect to need to revise the local limits downward.

With respect to the next permit cycle, it will be up to the permit writer at the time of the next writing to decide how to use the flow data from the newly installed stream gage. One cannot assume that the data will be disregarded.

3. Action: We did not change the permit.

B. Requirement to Install a Stream Gage

1. Comment: The City submitted information that in collaboration with the U.S. Geological Survey, it had installed a stream gage near the outfall from the treatment plant and that it began operation on July 10, 2009. It requested that the requirement to install the gage be deleted from the permit.

2. Response: We agree that the requirement to establish a stream gage should be deleted. However, we think it is appropriate to maintain the requirement to record streamflows and to report them to EPA by January 31 each year.

3. Action: We changed the permit at §I.E.7 to delete the installation and notification requirements.

IV. Pretreatment Program Requirements

A. Local Limits Evaluation

1. Comment: The City requested that the due date for the local limits evaluation be extended to 270 days or preferably to one year, due to the complexity of the evaluation.

2. Response: We have no objection to extending the due date to one year from the effective date of the permit.

3. Action: We changed the due date in §II.A.5 of the permit.

B. Ammonia as a Pretreatment Pollutant of Concern

1. Comment: The City requested an explanation on why ammonia needs to be addressed and further clarification of the phrase "if the permittee accepts ammonia from industrial sources." The City further requested removal of the references to ammonia in §§ II.A.5 and 8.a.

2. Response: As mentioned on page 19 of the Fact Sheet, EPA's 2004 *Local Limits Development Guidance (EPA 833-R-04-002A & B)* added three pollutants for pretreatment including ammonia for POTW's that accept non-domestic sources of ammonia. As it says, this applies to industrial or commercial discharges of ammonia from non-domestic waste sources. If domestic waste is discharged with industrial waste, the fact that ammonia is in the domestic waste does not trigger this requirement.

Since the language in the permit clearly states that ammonia only need be considered if the POTW accepts ammonia from non-domestic sources, it will not add a burden to the City if it doesn't apply in its case. However, we believe that it should remain in the permit to cover the possibility that the City may begin to accept such a discharge during the term of this permit, in which case the monitoring or local limit evaluation would be required.

3. Action: We did not change the permit.

V. Editorial Corrections

A. Misspelling of the word "gage"

1. Comment: ICL asserted that the word "gage" in Table 2 on page 13 of the draft permit is misspelled.

2. Response: Although "gauge" is the more commonly used spelling of the word, "gage" is the spelling used by USGS to refer to stream gages, which is the context in which we are using the word. Therefore, we disagree that there is a misspelling.

3. Action: We did not change the permit.

B. Reference to Appendix D

1. Comment: IDEQ asserts that the reference to Appendix D on page 23 of the Fact Sheet is not clear whether it's Appendix D of the Fact Sheet or of the State of Department of Environmental Quality Idaho Pollutant Trading Guidance (November 2003 draft) ("Guidance").

2. Response: Since we had not yet mentioned the Guidance in that section, we thought the reference was clearly to the Appendix of the Fact Sheet. That is what was intended. The comment did not refer to the permit itself.

3. Action: We did not change the permit.

C. A Visual Representation of the Timeline for Submittals

1. Comment: IDEQ suggested an example of the "time frame" when one submits the adjusted discharge in their DMR by the 10th day of the second month following sampling.

2. Response: Our intent is to maintain close correlation between the requirements for pollutant trading in the Aquaculture General Permit and this permit, since it is anticipated that they will be trading with each other. The present language is the same as that in the aquaculture permits, where it did not receive comment.

3. Action: We added a small table in Appendix A of the permit to represent the timeline more visually.

D. Inconsistent References to Idaho's Pollutant Trading Guidance

1. **Comment:** IDEQ pointed out that we were inconsistent in our reference to Idaho's Pollutant Trading Guidance. It asked that we use the entire title of the Pollutant Trading Guidance on page 7 of the permit.

2. **Response:** We agree that the references were inconsistent; they should all have been "State of Idaho Department of Environmental Quality Pollutant Trading Guidance (November 2003 draft)." We have changed the references in the permit; the one incorrect reference we found in the Fact Sheet was on page 59. Since we cannot change that final document, this response serves as a correction.

3. **Action:** In the permit, we corrected the title of the Guidance on pages 7 and 37.

E. Design Flow for Treatment Plant

1. **Comment:** The City said that the 10.92 mgd value in the description of the treatment plant in the Fact Sheet should be described as the peak *day* design flow.

2. **Response:** We described the flow as "a peak design flow of 10.92 mgd." The comment is noted. It does not apply to the permit itself.

3. **Action:** We change neither the permit nor the Fact Sheet, which is a final document.

F. Information on Chlorine Contact Chambers

1. **Comment:** The City asked to have deleted the sentence on page 6 of the Fact Sheet: "Chlorine contact chambers would be used only in the event that the whole UV system is inoperable for an extended period of time." They pointed out that they no longer have chlorine feed and distribution equipment on-site.

2. **Response:** We acknowledge the comment. We based the statement in the Fact Sheet on previous information from City staff. We did not change the Fact Sheet since it is a final document. The comment does not apply to the permit itself.

3. **Action:** We changed neither the permit nor the Fact Sheet.

G. Amount of Penalties

We have corrected amounts of penalties in § IV.B of the permit to reflect current statutory maximum fines.

H. Quality Assurance Plan Certification

We noticed that we had not included the standard condition in the draft permit that requires that the permittee notify EPA and IDEQ within 90 days of the permit effective date that the Quality Assurance Plan has been developed or updated and implemented. We had included it in the Schedule of Submissions in the front of the permit, but omitted it in the body of the permit. We added the provision at §II.C.

VI. References

State of Idaho, Department of Environmental Quality. *Pollutant Trading Guidance.* November 2003 Draft. Available at http://www.deq.state.id.us/water/prog_issues/waste_water/pollutant_trading/pollutant_trading_guidance_entire.pdf

U.S. EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control.* EPA/505/2-90-001

U.S. EPA. 2004. *Local Limits Development Guidance.* EPA 833-R-04-002A & B

EPA EXHIBIT # 3

ADMINISTRATIVE RECORD # 23

FACT SHEET

May 11, 2009

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

The City of Twin Falls
Wastewater Treatment Plant

NPDES Permit Number: **ID0021270**

Public Notice Start Date: May 15, 2009
Public Notice Expiration Date: June 15, 2009

Technical Contact: Sharon Wilson, 206-553-0325, wilson.sharon@epa.gov
1-800-424-4372 ext. 3-0325 (within Region 10)

EPA Proposes To Reissue NPDES Permit

EPA proposes to reissue the NPDES permit to the facility referenced above. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the United States. In order to ensure protection of water quality and human health, the permit place limits on the types and amounts of pollutants that can be discharged from each facility.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations, and other conditions for each facility
- a map and description of the discharge locations
- technical material supporting the conditions in the permit

State Certification for Facilities that Discharge to State Waters

EPA will request that the Idaho Department of Environmental Quality (IDEQ) certify the NPDES permit for this facility, under Section 401 of the Clean Water Act. This Notice also serves as Public Notice of the intent of the State of Idaho to consider certifying that the subject discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306, and 307 of the Clean Water Act. The NPDES permit will not be issued until the certification requirements of Section 401 have been met.

Public Comment

Written comments receive as much consideration as oral comments at a public hearing. Persons wishing to comment on the draft permit or request a Public Hearing may do so in writing by the expiration date of the Public Comment period. 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 a Public Hearing must be submitted in writing 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 Region 10's Director for the Office of Water and Watersheds 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. In such a case, the permit will become effective at least 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 permit and fact sheet are posted on the Region 10 website at http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/DraftPermitsID Copies may also be requested by writing to EPA at the Seattle address below, by e-mailing washington.audrey@epa.gov, or by calling Audrey Washington at 206-553-0523 or (800) 424-4372 ext 0523 (within Alaska, Idaho, Oregon, & Washington). Copies may also be inspected and copied at the offices below between 8:30 a.m. and 4:00 P.M., Monday through Friday, except federal holidays. In Seattle, visitors report to the 12th floor Public Information Center.

EPA Region 10 1200 Sixth Avenue, Suite 900, OWW-130 Seattle, Washington 98101-3140	(206) 553-0523
EPA Idaho Operations Office 1435 North Orchard Street Boise, Idaho 83706	(208) 378-5746
Idaho Department of Environmental Quality Twin Falls Regional Office 1363 Fillmore Street Twin Falls, ID 83301	(208) 736-2190

For technical questions regarding the permit or fact sheet, contact Sharon Wilson at the phone number or e-mail address at the top of this fact sheet. Those with impaired hearing or speech may contact a TDD operator at 1-800-833-6384 and ask to be connected to the appropriate phone number. Persons with disabilities may request additional services by contacting Sharon Wilson.

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APPENDICES

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I. APPLICANT

This fact sheet provides information on the draft NPDES permit for the following entity:

Facility Name:	City of Twin Falls Wastewater Treatment Plant
Mailing Address:	P.O. Box 1907, Twin Falls, Idaho 83303
Facility Address:	350 Canyon Springs Road West, Twin Falls, Idaho
Contact:	Jon Caton, Public Works Manager (208) 735-7270

II. FACILITY INFORMATION

A. Facility Description

The City of Twin Falls owns and operates a facility that treats wastewater from domestic, industrial, and commercial sources. The facility discharges secondarily treated wastewater throughout the year to the Snake River at approximately river mile 608.5. The discharge is approximately 10 feet from shore and 2 feet below the surface of the river.

The sewer system consists of separate, municipally-owned sewers that collect sewage from both the City of Twin Falls (population 35,633 (from permit application received in June 2006)) and the City of Kimberly (population 2,672) and treats the collected wastewater at the Twin Falls wastewater treatment plant (WWTP). The WWTP has a design flow rate of 8.56 million gallons per day (mgd) and a peak design flow of 10.92 mgd. The current average daily flow reported in the permit application was 7.13 mgd, while the maximum daily flow rate was 11.63 mgd. The facility estimates that it has approximately 4,000 gallons per day (gpd) infiltration and inflow into its sewer system. To address this problem, the City uses continuous video inspection of its sewer lines, repairs detected leaks, and disconnects any roof or area drains that are found to discharge into the sewer system.

The Twin Falls WWTP was upgraded in 2001 during Phase I of a planned three-phase upgrade. Phase I consisted of construction of a new aeration basin, a secondary clarifier, a gravity belt thickener (GBT), a retrofit of blowers to 500 horsepower (hp), W-3 utility water system for wash water at the GBT, and belt presses plus facility irrigation and a Supervisory Control and Data Acquisition System (SCADA) system. Phase II will include biological nutrient removal, an additional aeration basin, and a secondary clarifier. Phase III will include an additional aeration basin and a secondary clarifier.

The Twin Falls WWTP processes include screening and grit removal, followed by clarification with two primary clarifiers that remove solids (hydraulic retention time of 2.0 hours at present flows of 3.55 mgd each). Primary effluent flows to the bio-tower wet well

where it is combined with return activated sludge (RAS) at an average flow of 6.0 mgd. Three 75 hp pumps lift the flow to the top of the tower where it is distributed onto the media by a series of fixed distribution pipes and nozzles at a rate of 9.8 gpm/ft^2.

The wastewater then flows into four aeration basins (each with an average flow of 3.3 mgd), entering into the basins in plug flow mode. Ammonia conversion is achieved in the aeration basins in order to meet NPDES limits. Air is supplied to the basins by three 500 hp blowers through over 1,900 fine bubble diffusers. The system is operated at a food to microorganism (F/M) ratio of between 0.28 during the summer months and 0.17 during the winter months. Solids inventories range from 60,000 lbs of volatile matter in the summer to 85,000 lbs volatile matter in the winter.

Aeration basin effluent flows to three secondary clarifiers. The two original plant clarifiers (each 4.2 mgd average) utilize draft tubes for removal of settled sludge from the clarifier bottom. The recently constructed third clarifier (average 4.7 mgd) utilizes the Clarifier Optimization Package (COP) system for sludge removal. NEFCO Stamford baffles are utilized on all three clarifiers The baffles help reduce solid loss to the effluent by redirecting clarifier flow back toward the center of the clarifier, resulting in better settling of the solids. RAS is pumped back to the bio-tower wet well by four 60 hp pumps. The effluent from the secondary clarifiers (average 7.1 mgd, combined) proceeds to the Trojan UV 4000 system, which uses ultraviolet light to disinfect and destroy disease-causing bacteria that survived previous treatment processes. There are two parallel sets of the UV system. Chlorine contact chambers would be used only in the event that the whole UV system is inoperable for an extended period of time.

Waste solids from both the primary and the secondary system are co-thickened with a gravity belt thickener. Solids are thickened to 6-8 percent solids. The concentrated solids (average 0.044 mgd) are pumped to the anaerobic digesters. The facility utilizes two anaerobic digesters and one sludge pump holding tank to digest the solids and meet volatile solids reduction criteria. The resulting sludge is pumped to two 2-meter filter belt presses for dewatering. The facility produces Class B biosolids, which are land-applied to agricultural land in Twin Falls County, Idaho, in cake form at 14-15 percent solids by three Knight Bed side slinger trucks. Application sites are set up using GPS for setbacks, boundaries, etc. with detailed maps printed out. Detailed records are kept of all biosolids applications.

A SCADA system is utilized to monitor all process units and provide an alarm call-out system when the facility is unmanned.

In the event of a power outage, all essential plant processes are powered by two emergency generators (1,400 kW combined).

B. Pretreatment Program

An extensive Industrial Pretreatment Program (IPP) is in place. Currently, the Twin Falls IPP oversees six industries and one satellite collection system (the City of Kimberly) that discharge into the collection system. Approximately 2,400 samples total are collected yearly for the industries and Kimberly and are tested for different pollutants by the WWTP.

Current major industrial dischargers include:

- Longview Fibre, which manufactures cardboard boxes and uses screen printing to label the boxes (approximately 20,000 gpd in process wastewater);
- Con Agra (formerly Lamb Weston, Inc.), which produces frozen potato products and discharges wastewater used to wash and process the potatoes (approximately 2,000,000 gpd in process wastewater);
- Keegan Inc., which produces fresh-pack potato products and discharges wastewater used to wash the potatoes (approximately 18,000 gpd in process wastewater; discharge from November 1st to March 1st annually);
- Independent Meat, a slaughterhouse and meat processor producing pork products (approximately 160,000 gpd in process wastewater);
- Glanbia Foods, which produces cheese and generates wastewater from wash and rinse cycles, as well as from whey reclamation (approximately 341,000 gpd in process wastewater);
- AmeriPride, a commercial laundry facility with washwater discharge (approximately 73,000 gpd in wastewater).

Typical pollutants that might be expected in discharges from these industrial processes include starch, ink, caustics, sulfuric acid, ammonia, chlorine, chlorine dioxide, solvents, metals, and grease.

C. Permit History

The facility's previous permit became effective on May 1, 2000 and expired on May 1, 2005. This permit incorporated applicable effluent limitations and conditions of the Middle Snake River Watershed Management Plan (IDEQ 1997). The most recent permit application was submitted on April 11, 2005 and resubmitted on June 26, 2006.

D. Compliance History

DMR monitoring data from May 2001 to April 2008 were reviewed to determine the facility's compliance with its current effluent limits. The data review indicated that, for the most part, the facility could consistently achieve all secondary treatment limits. However, the facility periodically exceeded its permit limits during the previous permit cycle. These exceedances are summarized below:

- 2 violations of BOD_5 concentrations (January and December 2002)
- 4 violations of TSS concentrations (January, July and December 2002 and March 2004)
- 1 violation of ammonia concentrations (June 2001)
- 2 violations of fecal coliform concentrations (April and December 2002)
- 1 violation of TSS percent removal (December 2002)

Specific information for this facility is provided in Appendix A

III. RECEIVING WATER

The City of Twin Falls discharges throughout the year to the Snake River approximately at river mile 608.5. The State of Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA §58.01.02) protect this segment (HUC 17040212, Upper Snake-Rock Subbasin, segment US-20, Milner Dam to Twin Falls) for the following existing uses: cold water biota, salmonid spawning, primary contact recreation, agricultural and industrial water supply, wildlife habitat, and aesthetics.

A. Low Flow Conditions

Flows in the segment of the Snake River to which the Twin Falls wastewater treatment plant discharges are controlled by Milner Dam, located approximately 30 miles upstream of Twin Falls The United States Geological Survey (USGS) gage near Kimberly, ID (station #13090000, river mile 617.5) was determined to be the closest gage upstream of the facility with a data record long enough to produce the statistical measures needed for the permit calculations. Flow information from that gage, analyzed from 1987 to 2007, indicate that the river flow at the gage is characterized by a 7 day, 10 year low flow (7Q10) flow of 202 cfs (131 mgd), and a 1 day, 10 year low flow (1Q10) flow of 190 cfs (123 mgd).

The City has asserted that the low flows at the Twin Falls treatment plant vary significantly from those at the USGS gage at Kimberly. To gather more accurate information, we are proposing a compliance schedule for the City to establish a stream gage just upstream of its outfall to measure the streamflows to support calculations in reasonable potential analyses and limit calculations in future permit cycles.

B. Water Quality Standards

Section 301(b)(1)(c) of the CWA requires the development of limitations in permits necessary to meet water quality standards. Federal regulations in 40 CFR 122.4(d) prohibit the issuance of an NPDES permit which does not ensure compliance with the water quality standards of all affected States.

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.

Idaho Water Quality Standards (WQS) summarize the surface water use designations for the State of Idaho: that all waters of the State of Idaho are protected for the uses of industrial and agricultural water supply (IDAPA 58.01.02.100.03.b and c), wildlife habitats (IDAPA 58.01.02.100.04) and aesthetics (IDAPA 58.01.02.100.05). The WQS in Sections 252.02, 252.03, and 253 require that industrial and agricultural water supply uses are to be protected by narrative criteria in IDAPA 58.01.02.200. These narrative criteria require that all surface waters of the State shall be free from hazardous materials, toxic substances, deleterious materials, radioactive materials; floating, suspended, or submerged matter; excess nutrients; oxygen-demanding materials; and sediment concentrations which would impair beneficial uses. The WQS state, in Section 252.02, that the criteria from Water Quality Criteria 1972, also referred to as the "Blue Book" (EPA R3-73-033), can be used to determine numeric criteria for the protection of water supply use.

The Snake River at Twin Falls is also protected for cold water biota, salmonid spawning, and primary contact recreation. (IDAPA 58.01.02.150.14)

Because the effluent limits in the draft permits are either based on current water quality criteria or are technology-based limits that have been shown to not cause or contribute to an exceedance of water quality standards, the discharge limited as proposed in the draft permit is not expected to result in or contribute to degradation of the receiving water.

C. Water Quality Limited Segment

Any waterbody for which the water quality does not, and/or is not expected to meet, applicable water quality standards is defined as a "water quality limited segment."

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 segments. The TMDL documents the amount of a pollutant a water body can assimilate without violating a state's water quality standards and allocates that load to known point sources and nonpoint sources.

A TMDL for total phosphorus (TP) and total suspended solids (TSS) was approved by EPA on August 25, 2000.

During permit reissuance in 1999, water quality based limits for phosphorus were added to the permit to implement the TMDL. The permit now being proposed continues these limits and implements the approved TMDL for both TP and TSS, as well as existing limits for BOD_5, ammonia, and pH. The WLA for total suspended solids has also been applied. *E. coli* limits have been proposed to replace previous fecal coliform bacteria limits in compliance with updated Idaho requirements. The permit also continues effluent monitoring requirements for parameters with effluent limitations and for other nutrients.

IV. EFFLUENT LIMITATIONS

A. Basis for Permit Effluent Limits

In general, the CWA requires that the limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. 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. The basis for the proposed effluent limits in the draft permit are provided in Appendix B of this document, as well as in the fact sheets, responses to comments, and Total Maximum Daily Load (TMDL) developed for the 1994 permit, the 1999 modification for phosphorus, and the 2005 updated TMDL. There have been no changes in the technology or water quality-based requirements that apply to the Twin Falls facility since the development of the 1994 permit other than the phosphorus conditions, which were addressed in 1999.

B. Proposed Effluent Limitations

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

1. There must be no discharge of any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

2. Table 1 below presents the proposed effluent limits for 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), *Escherichia coli* (*E. coli*), pH, total phosphorus, ammonia, and total residual chlorine, and the minimum percent removal requirements for BOD_5, and TSS.

Table 1
Proposed Effluent Limitations

Parameters	Average Monthly Limit	Average Weekly Limit	Minimum Percent Removal[1]	Maximum Daily Limit	Instantaneous Maximum Limit
Net BOD_5	30 mg/L	45 mg/L	85%	--	---
	2,142 lbs/day	3,213 lbs/day		--	---
Net TSS	30 mg/L	45 mg/L	85%	--	---
	2,142 lbs/day[2]	3,213 lbs/day[2]			
	980 lbs/day[3]	1390 lbs/day[3]		--	--
E. coli Bacteria	126 colonies /100mL [4]	---	--	--	406 colonies /100mL
Total Phosphorus	710 lbs/day	990 lbs/day	--	--	--
Total Ammonia as N (May 1- Sept. 30)	3.8 mg/L 247 lbs/day	--	--	5.4 mg/L 351 lbs/day	--
Total Ammonia as N (Oct. 1 – Apr. 30)	5.2 mg/L 338 lbs/day	--	--	7.5 mg/L 488 lbs/day	--
Total Residual Chlorine[5]	0.012 mg/L 0.86 lbs/day	--	--	0.033 mg/L 2.36 lbs/day	--
Ph	6.5 – 9.0 standard units				

[1] Percent removal is calculated using the following equation: (influent - effluent) / influent; this limit applies to the average monthly values.
[2] The interim mass based limits for total suspended solids apply only after June 30, 2014; see §IV.B.3, below.
[3] The final mass based limits for total suspended solids apply only after June 30, 2014; see §IV.B.3, below.
[4] The monthly average for *E. coli* is the geometric mean of all samples taken during the month.
[5] The chlorine limits apply only when chlorine is being used.

3. Total Suspended Solids limits.

a. Mass-based limits. The mass-based limits for TSS proposed in this draft permit are considerably lower than those in the last permit; they are now based on wasteload allocations in the Upper Snake Rock Total Maximum Daily Load. Idaho regulations at IDAPA 58.01.400.03 allow for a compliance schedule the first time a water quality based limitation is applied in a discharge permit. IDEQ has indicated that it intends to certify a schedule to allow the City time to upgrade its facility to meet the more

stringent water quality based limits. In the meantime, the secondary treatment, technology based standards of 30 mg/l, monthly average, and 45 mg/l, weekly average, will assure that water quality in the Snake River does not deteriorate from the current condition.

b. Interim Requirements for the Schedule of Compliance

(1) By July 1, 2010, the permittee must provide written notice to EPA and IDEQ that the Chemical Enhancement Primary Treatment (CEPT) has been completed.

(2) By July 1, 2011, the permittee must provide written notice to EPA and IDEQ that a facility plan has been developed to achieve the final limits and must submit a summary report of the plan for implementation.

(3) By July 1, 2012, the permittee must provide written notice to EPA and IDEQ that it has chosen a design alternative and that contracts have been awarded to begin construction to achieve final effluent limitations.

(4) By July 1, 2014, the permittee must provide written notice to EPA and IDEQ that it has completed start up and optimization of its chosen design alternative and is achieving compliance with the final TSS mass-based effluent limitations of Table 1 of the permit.

V. MONITORING REQUIREMENTS

A. Basis for Effluent and Surface Water Monitoring Requirements

Section 308 of the CWA and federal regulation 40 CFR §122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring is also be required to gather effluent and surface water data to determine if additional effluent limitations are required and to monitor effluent impacts on receiving water quality.

B. Effluent Monitoring Requirements

1. Parameters

The draft permit requires monitoring of the effluent for BOD_5, TSS, *E. coli*, total phosphorus, total ammonia, total residual chlorine (when limits apply), and cyanide to determine compliance with the effluent limits; it also requires monitoring of the influent for BOD_5 and TSS to calculate monthly removal rates. In addition, the permit includes requirements to monitor the effluent for nitrate-nitrogen and total Kjeldahl nitrogen to collect data to assess potential nutrient contributions to the watershed. Because of temperature impairment in the receiving water, we have added temperature monitoring of the effluent and the receiving water.

Furthermore, because the City of Twin Falls WWTP is a major municipal NPDES facility (i.e., ≥1 MGD design flow), it is subject to expanded effluent and whole effluent toxicity

(WET) testing at its next application submittal. As indicated in Part D of NPDES application Form 2A, expanded effluent testing is required of all municipal WWTPs with design flow equal to or greater than 1 MGD. Expanded effluent testing includes a full priority pollutant scan (40 CFR §131.36) along with some additional parameters. Since the permit application requires reporting the results from a minimum of three expanded effluent testing events with the application submittal, the draft permit requires this monitoring in the second, third, and fourth years of the permit to avoid having three sampling events performed during a short time frame just prior to application submittal. Results from the expanded effluent testing must be submitted to EPA with the DMRs and concurrent WET test results.

2. Frequency

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples can be used for averaging if they are conducted using EPA approved test methods (generally found in 40 CFR §136) and if the Method Detection Limits (MDLs) are less than the effluent limits.

EPA's *Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies* provides guidelines by which permit writers may reduce required monitoring frequencies based on past performance of a facility. Based on that guidance, we are proposing to reduce the sampling frequency for BOD_5 and TSS to four times a week instead of seven. This is based on long-term average (LTA) BOD_5 monthly discharges at 50% of the average monthly limit (AML) and on LTA TSS monthly discharges at 60% of the AML. We also confirmed that there were no violations of limits for either parameter in the last two years that we were analyzing (5/04—4/06).

Table 2 presents the effluent monitoring requirements for the permittee in the draft permit. Each of the effluent monitoring requirements from the previous permit (ID-002127-0) was evaluated to determine whether the requirements should be continued, updated, or eliminated. Based on this analysis, *E. coli* monitoring was set at 5/month at intervals of three to seven days in order to produce enough data points to calculate a geometric mean each month. The chronic water quality standard in the receiving water is stated as a geometric mean, so applying that limit at the end of pipe dictates that we must require five samples are collected each month.

The sampling location must be after the last treatment unit and prior to discharge to the receiving water. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

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Table 2
Effluent Monitoring Requirements

Parameter	Unit	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Effluent	Continuous	Recording
BOD_5	mg/L	Influent and Effluent[6]	4/week	24-hour composite
	lbs/day	Effluent	4/week	Calculation[7]
	% Removal	--	–	Calculation[8]
TSS	mg/L	Influent and Effluent[5]	4/week	24-hour composite
	lbs/day	Effluent	4/week	Calculation[7]
	% Removal	--	–	Calculation[8]
pH	standard units	Effluent	1/day	Grab
Temperature	ºC	Influent & effluent	Continuous	recording
E.coli	colonies/100 ml	Effluent	5/month[9]	Grab
Total Residual Chlorine	mg/L	Effluent	1/day[10]	Grab
Total Ammonia as N	mg/L	Effluent	1/week	24-hour composite
Nitrate-Nitrogen	mg/L	Effluent	1/week	24-hour composite
Total Kjeldahl Nitrogen	mg/L	Effluent	1/week	24-hour composite
Total Phosphorus as P	mg/L	Effluent	1/week	24-hour composite
Whole Effluent Toxicity	toxic units	Effluent	2/year [11]	24-hour composite
Expanded Effluent Testing	mg/L	Effluent	1 each in 2nd, 3rd, & 4th years of the permit	24-hr composite

[6] Influent and effluent composite samples shall be collected during the same 24-hour period.
[7] Loading is calculated by multiplying the concentration in mg/L by the flow (in mgd) recorded for that day and a conversion factor of 8.34.
[8] Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.
[9] Five samples taken every three (3) to seven (7) days over a thirty (30) day period.
[10] Chlorine monitoring is required only when chlorine is being used.
[11] in April and October

C. Whole Effluent Toxicity Testing Requirements

The previous permit required two toxicity tests per year- once each in April and October. Table 3 summarizes the results from chronic toxicity testing from the previous permit term.

Table 3
Whole Effluent Toxicity Testing Results

Date	Species	25% Inhibition Concentration (IC_{25}) (Percent Effluent)	No Observable Effect Concentration (NOEC) (Percent Effluent)
6/13/00	*Ceriodaphnia dubia*	30.3	25
6/13/00	*Ceriodaphnia dubia*	>50	50
6/13/00	Fathead Minnow	>50	50
4/24/01	*Ceriodaphnia dubia*	47.1	12.5
4/24/01	Fathead Minnow	100	50.0
4/24/01	*Ceriodaphnia dubia*	invalid	
10/23/01	Fathead Minnow	100	100
10/23/01	*Ceriodaphnia dubia*	66.7	50
10/23/01	*Ceriodaphnia dubia*	>50	50
4/11/02	Fathead Minnow	4.3	6.25
4/11/02	*Ceriodaphnia dubia*	>50	50
4/11/02	Fathead Minnow	4.3	50
10/7/03	*Ceriodaphnia dubia*	>50	50
10/7/03	Fathead Minnow	>50	50
10/7/03	*Ceriodaphnia dubia*	62.7	50
4/20/04	Fathead Minnow	>100	100
4/20/04	*Ceriodaphnia dubia*	>50	50
4/20/04	Fathead Minnow	>50	100

IC_{25} values represent the percentage of effluent at which 25 percent of the test organisms are inhibited relative to their normal activity, and the No Observable Effect Concentration (NOEC) indicates the highest percentage of effluent at which the test organisms suffer no effects from the effluent. At concentrations of effluent above the NOEC, effects were observed. NOEC values of 100 and IC_{25} values of > 100 indicate that the effluent is not toxic; IC_{25} and NOEC values of <100 indicate that the effluent has some toxic effect on the test organisms. The majority of the results above show that the facility effluent has some toxic effect (14 out of 17 samples had a NOEC < 100%).

The objective is to have no toxic effect in the receiving stream. Therefore, testing at the concentration of the effluent in the receiving stream at the edge of the mixing zone, 25% of

the 7Q10, is the starting point for design of the dilution series for toxicity testing. In logical terms, the receiving water is protected outside the mixing zone if:

$$RWC \leq NOEC$$

Where RWC = the percentage of effluent in the receiving water at the edge of the mixing zone under critical low flow conditions, i.e 7Q10 ,

NOEC = the no observable effect concentration (highest percentage dilution of effluent at which no toxic effects are observed)

The chronic RWC is calculated from the maximum design flow of the treatment plant (10.92 mgd) and the river flow (7Q10) (131 mgd) using the following formula:

$$\text{Chronic RWC} = \frac{Q_{effluent}}{(25\%)(Q_{stream}) + Q_{ffluent}} = \frac{10.92}{(0.25)(131) + 10.92} = 25\ \%$$

The proposed permit requires the chronic testing of the effluent twice a year to determine the toxicity of the effluent. If the toxicity is greater than 3.5 TU_a or 4.0 TU_c, the permittee must conduct accelerated testing.

If acute toxicity is demonstrated (test organisms are killed) during the chronic tests, the permittee must report the LC_{50} , the pollutant concentration at which 50% of the test organisms are killed. The acute RWC calculated using the above formula, but substituting the 1Q10 (123 mgd), is 26.2 % $\approx$ 26%. If acute toxicity is shown at a dilution of lower than 26% effluent, the permittee must conduct accelerated testing.

If accelerated testing confirms the toxic effects of the effluent, the permittee must develop and submit Toxicity Reduction Evaluation (TRE) workplan

D. Pretreatment Program Requirements

Under the pretreatment program requirements of the previous permit, the Twin Falls WWTP conducted sampling of its influent, effluent, and final sludge twice per year (in April and October) to track the potential for pollutants from industrial dischargers to affect the plant effluent, sludge quality, treatment processes, and worker health and safety. Table 4 below summarizes the results from that effluent monitoring. Only the data collected after the facility was upgraded in 2001 are included below.

Table 4
Summary of Effluent Sampling of Metals and Cyanide

	Parameter (mg/L)									
	Arsenic	**Cadmium**	**Chromium**	**Copper**	**Cyanide**	**Lead**	**Mercury**	**Nickel**	**Silver**	**Zinc**
Method Detection Limit	**0.005**	**0.0005**	**0.002**	**0.01**	**0.005**	**0.005**	**0.0002**	**0.02**	**0.005**	**0.005**
Date										
10/21/01	0.009	ND	ND	0.01	0.007	ND	0.0008	ND	0.006	0.028
10/23/02	0.01	ND	ND	0.01	0.065	ND	ND	ND	ND	0.031
10/25/02	0.008	ND	ND	ND	0.008	ND	ND	ND	ND	0.033
4/9/02	0.006	ND	ND	ND	0.011	ND	ND	ND	0.005	0.038
4/11/02	0.006	ND	ND	ND	0.074	ND	ND	ND	ND	0.042
4/14/02	0.005	ND	ND	ND	0.006	ND	ND	ND	0.005	0.035
10/6/02	0.006	ND	ND	ND	ND	ND	ND	ND	ND	0.042
10/8/02	0.006	ND	ND	ND	ND	0.005	ND	ND	ND	0.042
10/10/02	0.007	ND	0.002	ND	0.062	0.005	ND	ND	ND	0.045
4/13/03	0.006	ND	ND	ND	0.006	ND	ND	ND	ND	0.029
4/15/03	0.005	ND	ND	ND	0.005	ND	ND	ND	ND	0.030
4/17/03	0.006	ND	ND	ND	ND	ND	ND	ND	0.005	0.033
10/5/03	0.005	ND	ND	ND	ND	ND	ND	ND	ND	0.022
10/7/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.022
10/9/03	ND	ND	ND	ND	0.005	ND	ND	ND	ND	0.027
4/18/04	0.006	ND	0.002	ND	ND	ND	ND	ND	0.009	0.034
4/20/04	0.006	ND	ND	ND	ND	ND	ND	ND	0.01	0.031
4/22/04	0.007	ND	ND	ND	ND	ND	ND	ND	0.008	0.033
10/17/04	0.008	ND	ND	ND	ND	ND	ND	ND	0.008	0.017
10/19/04	0.008	ND	ND	ND	ND	ND	ND	ND	0.008	0.017
10/21/04	0.009	ND	ND	ND	ND	ND	ND	ND	0.008	0.030
4/17/05	0.008	ND	ND	ND	ND	ND	ND	ND	ND	0.040
4/19/05	0.007	ND	ND	ND	ND	ND	ND	ND	0.006	0.033
4/21/05	0.005	ND	ND	ND	ND	ND	ND	ND	0.006	0.033
10/2/05	0.007	ND	ND	ND	0.005	ND	ND	ND	0.005	0.026

Table 4
Summary of Effluent Sampling of Metals and Cyanide

	Parameter (mg/L)									
	Arsenic	**Cadmium**	**Chromium**	**Copper**	**Cyanide**	**Lead**	**Mercury**	**Nickel**	**Silver**	**Zinc**
Method Detection Limit	**0.005**	**0.0005**	**0.002**	**0.01**	**0.005**	**0.005**	**0.0002**	**0.02**	**0.005**	**0.005**
Date										
10/4/05	0.007	ND	ND	ND	ND	ND	ND	ND	ND	0.034
10/6/05	0.006	ND	ND	ND	0.006	ND	ND	ND	0.005	0.039
4/9/06	0.005	ND	ND	ND	0.006	ND	ND	ND	ND	0.040
4/11/06	0.006	ND	0.007	ND	0.006	ND	ND	ND	0.005	0.042
4/13/06	0.006	ND	ND	ND	0.006	ND	ND	ND	0.005	0.048
10/15/06	0.006	ND	ND	ND	ND	ND	ND	ND	ND	0.01
10/17/06	0.006	ND	ND	0.01	ND	ND	ND	ND	ND	0.029
10/19/06	0.006	ND	ND	0.01	ND	ND	ND	ND	ND	0.019
4/1/07	0.009	ND	ND	ND	ND	ND	ND	ND	ND	0.036
4/3/07	0.008	ND	ND	ND	ND	ND	ND	ND	ND	0.046
4/5/07	0.008	ND	ND	0.01	ND	ND	ND	ND	ND	0.052
10/7/07	0.007	ND	ND	ND	ND	ND	ND	ND	ND	0.03
10/9/07	0.008	ND	ND	ND	ND	ND	ND	ND	ND	0.04
10/11/07	0.008	ND	ND	0.01	ND	ND	ND	ND	ND	0.04
4/6/08	0.007	ND	ND	ND	ND	ND	ND	ND	ND	0.06
4/8/08	0.007	ND	ND	ND	ND	ND	ND	ND	ND	0.06
4/10/08	0.008	ND	ND	ND	ND	ND	ND	ND	ND	0.06

These data show that arsenic, silver, and zinc were consistently present above detection limits and cyanide to a lesser degree. Therefore, reasonable potential analyses were run for these pollutants to determine if water quality-based effluent limits were needed for them. Chromium, lead, and mercury were also detected periodically in the effluent. However, because these metals were not consistently detected in the effluent and there was not enough data on which to base the analyses, no reasonable potential analyses were run for these metals.

Reasonable potential analyses were conducted using the most stringent criteria for each parameter (see Table B-1, below).

The reasonable potential analyses showed that there was not a reasonable potential for arsenic, cyanide, silver, or zinc to exceed water quality standards in the Snake River; as mentioned above, the analysis for arsenic addressed both the aquatic life criteria and the human health criteria. Therefore, water quality-based effluent limits are not proposed for these parameters.

The proposed permit includes requirements to continue implementation of the approved pretreatment program. In particular, it continues the pretreatment sampling requirements from the previous permit and adds requirements to monitor for ammonia, molybdenum, and selenium, as required in EPA's updated Local Limits Development Guidance (EPA 833-R-04-002A, July 2004).

E. Receiving Water Monitoring Requirements

1. Pollutants

Receiving water monitoring is needed to evaluate if the effluent is causing or contributing to an in-stream exceedance of the water quality criteria and to provide data to conduct reasonable potential analyses in the next permit cycle.

Receiving water monitoring was required under the previous permit to monitor the receiving water for the parameters shown in Table 5, which shows the results of receiving water monitoring for 2000 – 2004 (no data were reported in 2002). Sampling consisted of one grab sample at each location (upstream, effluent, and downstream). Samples were taken in June 21, 2000; May 24, 2001; April 2, 2003; and March 24, 2004.

Table 5
Summary of Receiving Water Monitoring Results

	2000			2001			2003			2004		
Parameter (Units)	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**
Dissolved Oxygen (mg/L)	8.2	4.14	9.82	8.9	5.81	10.39	9.30	4.96	9.66	8.97	5.62	9.40
Temp. (C)	19.5	25	18.7	16.4	21.4	16.5	10.0	22.0	10.8	11.1	23.2	11.0
pH (su)	8.19	7.52	7.74	11.7	15.7	12.1	8.6	7.4	8.5	8.47	7.36	8.87
Suspended solids (mg/L)	20.0	21.7	22.1	11.7	15.7	12.1	14.1	29.8	14.9	18.4	33.8	18.9
Fecal coliform (Col./100ml)	15.5	33.4	27.7	3.5	56.0	11.2	11.0	187.6	17.1	2.8	474.6	26.3

Table 5
Summary of Receiving Water Monitoring Results

	2000			2001			2003			2004		
Parameter (Units)	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**	**Up[12]**	**Eff.[13]**	**Down[14]**
Ammonia-N (mg/L)	0.03	0.95	0.02	0.008	0.13	0.008	0.03	0.073	0.032	0.068	0.287	0.051
Nitrite-N (mg/L)	0.02	4.48	0.03	0.045	0.555	0.065	0.02	0.12	0.01	0.06	0.17	0.05
Nitrate-N (mg/L)	1.24	33.31	1.18	0.675	25.75	0.57	1.54	35.71	2.00	1.65	24.14	1.58
Total Phosphorus-P (mg/L)	0.05	10.0	0.05	0.05	5.03	0.05	0.61	13.5	0.34	0.17	12.91	0.25

[12] Up = upstream
[13] Eff. = effluent
[14] Down = downstream

These results indicate that all pollutant parameters are within acceptable ranges downstream of the WWTP.

Total residual chlorine is only required to be monitored if the WWTP uses chlorine for disinfection. Since the UV disinfection system has some redundancy built into its system, it is very unlikely that the WWTP will need to fall back on chlorine disinfection. Only if it does will monitoring of the effluent and receiving water be required; in such a case, both upstream and downstream samples would be required in order to assess background levels and immediate effects on the receiving water.

Because annual sampling does not yield enough data points to conduct a reasonable potential analysis in the next permit cycle, EPA increased the frequency of the receiving water monitoring requirements in the proposed permit to quarterly. EPA also proposes to add monitoring requirements for metals (arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, and zinc) in order to conduct reasonable potential analyses during the next permit cycle to determine potential impact on the environment. Table 6 shows these requirements.

2. Flow

EPA needs a flow record with enough data (at least ten years) to support calculation of low flow statistics-- 1Q10, 7Q10, 1B3, 30B3--which are needed for reasonable potential analyses and for limit calculations when the State grants a mixing zone. These low flow design discharge conditions derive from the requirements in the Idaho water quality standards (IDAPA 58.01.02.210.03.b). For this and previous permits, we used data from

the USGS gaging station near Kimberly, Idaho, #13090000, which is about 8 miles upstream of the City's outfall, to evaluate reasonable potential of various pollutants to exceed water quality standards. The result of those calculations did not show reasonable potential to violate. Therefore, no additional limits were added in this draft permit because of these evaluations.

Even so, the City and the State have proposed that we use average annual low flow levels that the State used in the development of the Upper Snake Rock TMDL instead of the low flow statistics from the Kimberly gage that we have used. The levels recommended by the City and State were derived by adding the average annual flows of springs, streams, and agricultural return flows that enter the Snake River in the miles between Milner Dam and the City of Twin Falls outfall. They make a case that the flow is higher at Twin Falls compared with that at the Kimberly gage because of these added flows. We recognize that these additional in-flows appear to add to the total flow that is experienced at Twin Falls. However, lacking daily flow information about those additional in-flows, we cannot quantify the combined low flow statistics that we need for the permit calculations.

We are proposing in the draft permit to require the City to establish a stream gage just upstream of its outfall on the Snake River in consultation with the US Geological Survey. According to Greg Clark, USGS Boise, the cost installation would be about $15,000 and the cost annual operation would be about $15,000. We are inviting comments on the proposed requirement for the City to establish such a gage to gather streamflow data.

Table 6
Proposed Receiving Water Monitoring Requirements

Parameter	Unit	Sample Location	Sample Frequency	Sample Type
Flow	mgd	upstream	4/year	recording
TSS	mg/L	upstream	4/year	grab
E. coli Bacteria	colonies/100 mL	upstream	4/year	grab
Dissolved Oxygen	mg/L	upstream	4/year	grab
pH	standard units	upstream	4/year	grab
Temperature	°C	upstream	4/year	grab
Total Ammonia as N	mg/L	Upstream & downstream	4/ year	grab
Total Nitrate as N	mg/L	upstream	4/year	grab
Total Nitrite as N	mg/L	upstream	4/year	grab
Total Phosphorus as P	mg/L	upstream	4/year	grab

Table 6
Proposed Receiving Water Monitoring Requirements

Parameter	Unit	Sample Location	Sample Frequency	Sample Type
Total Residual Chlorine	mg/L	Upstream & downstream[15]	4/year	grab
Arsenic[16]	mg/L	upstream	4/year	grab
Cadmium[16]	mg/L	upstream	4/year	grab
Chromium[16]	mg/L	upstream	4/year	grab
Copper[16]	mg/L	upstream	4/year	grab
Cyanide[16]	mg/L	upstream	4/year	grab
Lead[16]	mg/L	upstream	4/year	grab
Mercury[16]	mg/L	upstream	4/year	grab
Nickel[16]	mg/L	upstream	4/year	grab
Silver[16]	mg/L	upstream	4/year	grab
Zinc[16]	mg/L	upstream	4/year	grab
Molybdenum[16]	mg/L	upstream	4/year	grab
Selenium[16]	mg/L	upstream	4/year	grab
Hardness	mg/L	upstream	4/year	grab

[15] Downstream chlorine monitoring is only required if chlorine is being used.
[16] Arsenic, cadmium, chromium, copper, cyanide, lead, nickel, silver, zinc, molybdenum, and selenium must be analyzed as dissolved. Mercury must be analyzed as total.

F. Phosphorus Trading Requirements

In the Upper Snake Rock Subbasin, stakeholders, including aquaculture and fish processing facilities, municipalities, the State of Idaho, and EPA, have developed a trading scheme for buying and selling of total phosphorus credits among the dischargers. This scheme allows some dischargers to increase their average monthly discharges of total phosphorus above the average monthly limit in their permits if others are reducing their discharge by a similar amount. However, the overall effect of implementing the TMDL for total phosphorus is a net benefit because it reduces the loading of this pollutant to the watershed. Pollutant trading allows this to be accomplished more economically than might otherwise be the case.

The ability to participate in trading is limited by several factors, which are listed below.

- Only average monthly discharges for total phosphorus are eligible to be modified by trades; maximum daily discharges are not.

- A buyer cannot increase its average monthly discharge of total phosphorus above the monthly average applicable technology-based limit for its facility.

The City of Twin Falls is eligible to buy and sell total phosphorus credits. For more detail on the procedures, see Appendix D.

This proposed permit authorizes the City of Twin Falls to sell phosphorus credits to other point sources in the Upper Snake Rock Subbasin consistent with IDEQ's November 2003 draft *Pollutant Trading Guidance* ("Guidance"). The Guidance limits the point sources that can trade and anticipates allowing trades with nonpoint sources (NPS) only after specific actions and adjustments have been made. The permittee may request that EPA modify the permit to allow for pollutant trading with NPS only if the following elements in the Guidance have been completed:

- Install a Best Management Practice (BMP) from the applicable BMPs listed in the Guidance[1];
- Characterize, quantify and document the pollutant reduction according to the BMP's requirements;
- Determine the amount of the credit from the pollutant reduction, applying the appropriate ratios for the pollutant and water body, listed in the Appendices of the Guidance[2,3].
- Adjust the amount of the credit by subtracting the water quality contribution, the amount of reduction required to meet the water quality standards or load allocation[4];
- Make the BMP available for inspection by the NPDES permit holder that buys the credits, the NPDES authorities, and the Soil Conservation Commission to confirm proper installation and operation of the BMP as well as the correct amount of credits produced[5].

VI. SLUDGE (BIOSOLIDS) REQUIREMENTS

EPA Region 10 separates wastewater and sludge permitting. Under the CWA, EPA has the authority to issue separate sludge-only permits for the purposes of regulating biosolids. EPA may issue a sludge-only permit to each facility at a later date, as appropriate.

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[1] The BMP List and the process that must be followed to develop one are described in Section V (Best Management Practices List) of the Guidance.
[2] The Ratios are described in Section II.C.1 of the Guidance and are specific to pollutants and water bodies.
[3] The pollutant trading ratios developed specifically for the Upper Snake Rock Subbasin – Middle Snake River Watershed are contained in Appendix C of the Guidance.
[4] The water quality contribution is described in the Reduction Credit Certificate and must be subtracted from the initial amount as the first step in calculating the amount of marketable credits.
[5] The inspections to be conducted by the regulatory authorities are described in Section III (Forms and Reports) and Section IV.B (Review of Best Management Practices) of the Guidance.

In the absence of a sludge-only permit, sludge management and disposal activities at each 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. Since the 40 CFR Part 503 regulations are self-implementing, the permittees must comply with them whether or not a permit has been issued.

VII. OTHER PERMIT CONDITIONS

A. Quality Assurance Plan Implementation

The federal regulation at 40 CFR §122.41(e) requires the permittee to develop procedures to ensure that the monitoring data submitted to EPA are accurate and to explain data anomalies if they occur. The permittee is required to develop or update and implement a Quality Assurance Plan within 180 days of the effective date of the final permit. The Quality Assurance Plan shall consist of standard operating procedures that the permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting. The plan shall be retained on site and be made available to EPA and IDEQ upon request.

B. Operation and Maintenance Plan Implementation

The 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, monitoring requirements, and all other permit requirements at all times. The Permittee is required to develop and implement an operation and maintenance plan for its facility within 180 days of the effective date of the final permit. The plan shall be retained on site and made available to EPA and IDEQ upon request.

C. Best Management Practices Plan

The previous permit required the Permittee to develop and implement a Best Management Practices Plan by February 28, 2000. This BMP Plan that was developed includes measures which prevent or minimize the potential for release of excess nutrients to the Snake River. The facility has not yet installed biological nutrient removal (BNR) to control phosphorus. Therefore, the proposed permit retains the requirement to update the BMP Plan. The plan shall be retained on site and made available to EPA and IDEQ upon request.

D. Emergency Response and Public Notification Plan

In order to address growing problems of threat to public health arising from sewer overflows or treatment plant bypasses and upsets, a section is included in the permit to require development of a plan to respond in such emergencies including notification of the public.

E. Additional Permit Provisions

Sections III, IV, and V of the draft permit contain standard regulatory language that must be included in all NPDES permits. Because they are based on federal regulations, they cannot be challenged in the context of an individual NPDES permit action. The standard regulatory language covers requirements such as monitoring, recording, and 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 Oceanographic and Atmospheric Administration (NOAA) Fisheries and the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered species. A Biological Evaluation (BE) analyzing the effects of the discharge from the treatment facility on listed endangered and threatened species in the vicinity of the facilities was prepared. It concluded that the reissuance of this NPDES permit is not likely to adversely affect two endangered species (the Snake River physa snail (*Physa natricina*) and the Utah valvata snail (*Valvata utahensis*)) and one threatened species (the Bliss Rapids snail (*Taylorconcha serpenticola*)) that could potentially be in the area. The BE is available upon request.

B. State Certification

Section 401 of the CWA requires EPA to seek State certification before issuing a final permit. As a part of the certification, the State may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with State water quality standards. The State has pre-certified the draft permit.

C. Permit Expiration

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

IX. DEFINITIONS AND ACRONYMS

1Q10	1 day, 10 year low flow
1B3	biologically based 1 day, 3 year low flow
7Q10	7 day, 10 year low flow
30B3	biologically based 1 day, 3 year low flow
AML	Average Monthly Limit
BOD_5	Biochemical oxygen demand, five-day
^oC	Degrees Celsius
cfs	Cubic feet per second
CFR	Code of Federal Regulations
CV	Coefficient of Variation

CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved oxygen
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
lbs/day	Pounds per day
LTA	Long Term Average
mg/L	Milligrams per liter
ml	milliliters
µg/L	Micrograms per liter
mgd	Million gallons per day
MDL	Maximum Daily Limit or Method Detection Limit (depending on the context)
NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OWW	Office of Water and Watersheds
O&M	Operations and maintenance
POTW	Publicly owned treatment works
QAP	Quality assurance plan
RP	Reasonable Potential
RPM	Reasonable Potential Multiplier
s.u.	Standard Units
TMDL	Total Maximum Daily Load
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document (EPA, 1991)
TSS	Total suspended solids
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UV	Ultraviolet radiation
WLA	Wasteload allocation
WQBEL	Water quality-based effluent limit
WWTP	Wastewater treatment plant

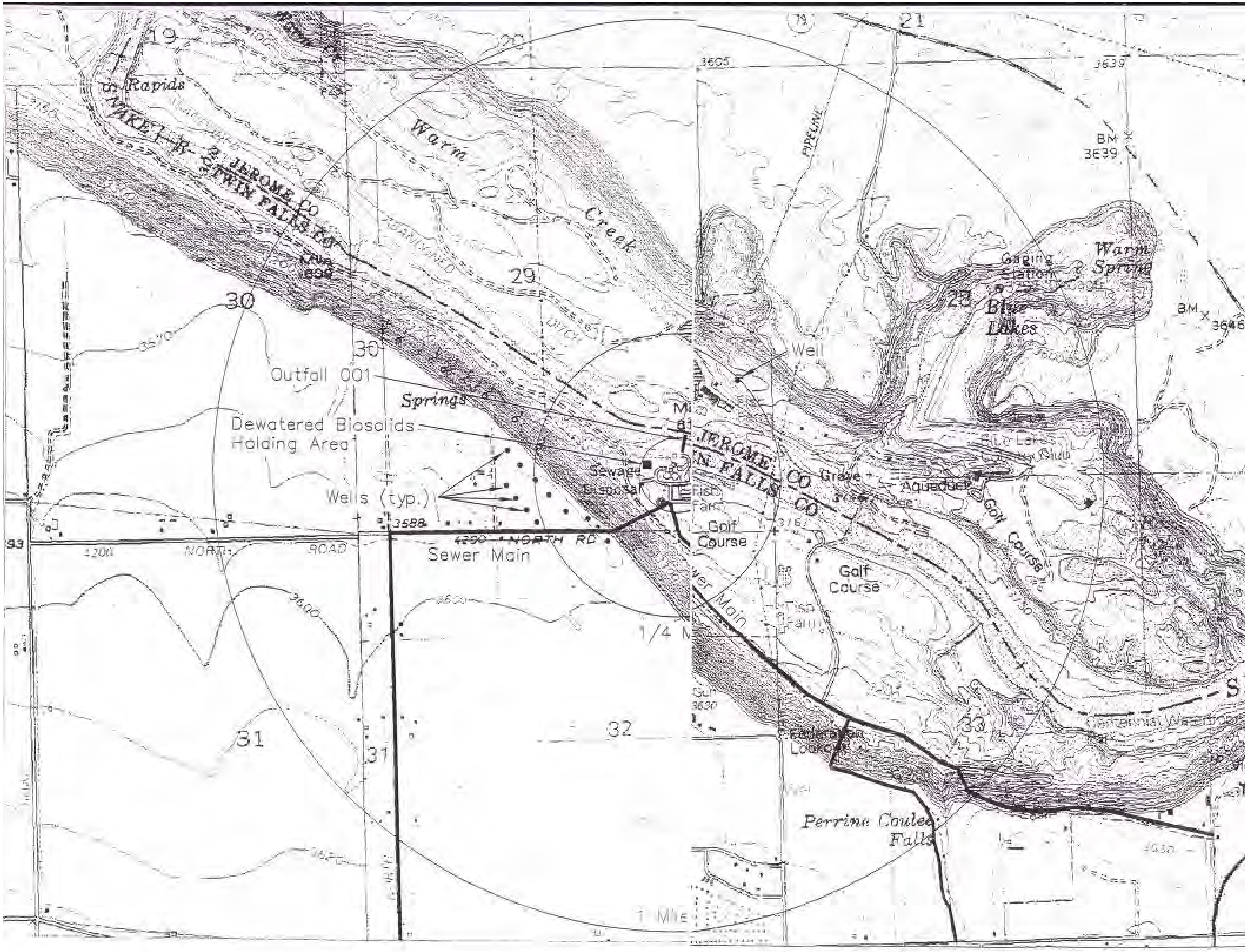
X. REFERENCES

1. City of Twin Falls, ID, 1994. NPDES permit, effective May 1, 2000 to May 1, 2005.
2. Idaho Administrative Procedures Act (IDAPA), 2006. Section 58, Water Quality Standards and Wastewater Treatment Requirements. Idaho Department of Environmental Quality Rules, Title 01, Chapter 02.
3. U.S. EPA, 1973. *Water Quality Criteria 1972* (EPA R3-73-033).
4. EPA. 1991. Technical Support Document for Water Quality-based Toxics Control. US Environmental Protection Agency, Office of Water, EPA/505/2-90-001.

Appendix A -- Facility Information

Summary Data for Twin Falls Facility	
NPDES ID Number:	ID-002127-0
Mailing Address:	PO Box 1907, Twin Falls, ID 83303-1907
Facility Address:	350 Canyon Springs Road West, Twin Falls, Idaho
Permit Background:	The previous permit was effective May 1, 2000 – May 1, 2005. The permit application was received in June 2006.
Collection System Information	
Service Area:	City of Twin Falls and Kimberly
Service Area Population:	38,305
Collection System Type:	100% separated sanitary sewer
Facility Information	
Treatment Train:	Screening and grit removal, primary clarification, aeration, secondary clarification, disinfection.
Design Flow:	8.56 mgd
Design Peak Flow:	10.92 mgd
Existing Flow:	7.13 mgd (average daily flow rate)
Months when Discharge Occurs:	Year round
Outfall Location:	latitude: 42E 36' 35" N, longitude: -114E 29' 06" W
Receiving Water Information	
Receiving Water:	Snake River
Subbasin:	Middle Snake River (HUC 17040212)
Beneficial Uses:	cold-water biota, salmonid spawning, and primary contact recreation.
Water Quality Limited Segment:	A TMDL for total phosphorus and TSS was updated in 2005. Total phosphorus and TSS limits have been included in the proposed permit to comply with the TMDL requirements.
Low Flow[6]:	1Q10 = 190 cfs (123 mgd); 7Q10 = 202 cfs (131 mgd) 1B3 = 218 cfs (141 mgd); 30B3 = 257 cfs (166 mgd)

[6] Data from the USGS gage near Kimberly, ID [station #13090000, river mile 617.5]



Outfall 001
Dewatered Biosolids Holding Area
Wells (typ.)
Sewer Main
Sewage Disposal
Fish Farm
Golf Course
Golf Course
Fish Farm
1/4 Mi
1 Mile
Warm Creek
Springs
JEROME CO
TWIN FALLS CO
Blue Lakes
Warm Spring
Gaging Station
Well
Aqueduct
Perrine Coulee Falls
Federation Lookout
NORTH RD
NORTH ROAD
PIPELINE
BM 3639
3588
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Appendix B -- Basis for Effluent Limitations

The Clean Water Act (CWA) requires Publicly Owned Treatment Works (POTWs) to meet effluent limits based on available wastewater treatment technology. These types of effluent limits are called secondary treatment effluent limits. EPA may find, by analyzing the effect of an effluent discharge on the receiving water, that secondary treatment 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 the water quality standards of the receiving water are met.

Secondary treatment effluent limits may not limit every parameter that is in an effluent. For example, secondary treatment effluent limits for POTWs have only been developed for five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH, yet effluent from a POTW may contain other pollutants, such as bacteria, chlorine, ammonia, nutrients, or metals, depending on the type of treatment system used and the quality of the influent from the service area of the POTW (i.e., industrial facilities as well as residential areas discharge into the POTW). When technology-based effluent limits do not exist for a particular pollutant expected to be in the effluent, EPA must determine if the pollutant may cause or contribute to an exceedance of the water quality standards for the receiving water body. If a pollutant may cause or contribute to an exceedance of a water quality standard, water quality-based effluent limits for the pollutant must be incorporated into the permit.

The following discussion 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 discusses facility specific limits.

I. Technology-Based Effluent Limits

A. BOD_5, TSS and pH

Secondary Treatment:

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 40 CFR Part 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.

Table B-1 below lists the technology based effluent limits:

Table B-1 Secondary Treatment Effluent Limits			
Parameter	**Average Monthly Limit**	**Average Weekly Limit**	**Range**
BOD_5	30 mg/L	45 mg/L	---
TSS	30 mg/L	45 mg/L	---
Removal Rates for BOD_5 and TSS	85% (minimum)	---	---
pH	---	---	6.0 - 9.0 s.u.

The past five years of monitoring data were examined to determine if any modifications in effluent limits for BOD_5 and TSS (such as treatment equivalent to secondary limits or reduced percent removal requirements) were warranted. We determined that the facility has been achieving secondary treatment limits, and so the secondary treatment limits were retained in the draft permit.

2. Mass-based Limits

The federal regulations at 40 CFR §122.45(b) and (f) require that POTW limitations to be expressed as mass-based limits using the design flow of the facility. The mass-based limits, expressed in lbs/day, are calculated as follows:

Mass-based limit (lbs/day) = concentration limit (mg/L) × design flow (mgd) × 8.34

Since the design flow for this facility is 8.56 mgd, the mass limits for BOD_5 and TSS are calculated as follows:

Average Monthly Limit = 30 mg/L × 8.56 mgd × 8.34 = 2,142 lbs/day

Average Weekly Limit = 45 mg/L × 8.56 mgd × 8.34 = 3,213 lbs/day

II. Water Quality-Based Effluent Limits

A. 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/tribal waters must also comply with limitations imposed by the state/tribe 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/tribal water quality standard, including state/tribal 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.

B. Evaluating the Need for Water-quality Based Limits

When evaluating the effluent to determine if water quality-based effluent limits based on chemical specific numeric criteria are needed, 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 receiving water and, if appropriate, the dilution available from the receiving water are factors used to project the receiving water concentration. If the projected concentration of the receiving water exceeds the numeric criterion for a limited parameter, 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.

Sometimes it is appropriate to allow a volume of receiving water to provide dilution of the effluent; these volumes are called mixing zones. Mixing zone allowances will increase the allowable mass loadings of the pollutant to the water body and decrease treatment requirements. Mixing zones can be used only when there is adequate receiving water flow volume and the concentration of the pollutant of concern in the receiving water is below the numeric criterion necessary to protect the designated uses of the water body. Mixing zones must be authorized by the State. IDEQ has indicated in its pre-certification of this permit that it would authorize a 25% mixing zone for ammonia, cyanide, silver, arsenic, zinc and nitrate-nitrogen.

Toxicity of some metals (e.g., zinc, silver) is dependent on the hardness of the receiving water. The toxicity of these metals increases with lower hardness. The *Technical Support Document for Water Quality-based Toxics Control* (EPA 1991) (TSD) recommends using the 5^{th} percentile of the ambient water hardness when conducting reasonable potential analyses of hardness-dependent metals. Hardness data were available from the USGS gage near Kimberly, ID (station #13090000, river mile 617.5). The 5^{th} percentile of these data was 190 mg/L hardness, and this value was used in the reasonable potential analyses. We used metals effluent data gathered under the pretreatment requirements during the last permit cycle. These data are summarized in Table 4, above.

Based on the data submitted in the permit application, as well as DMR and other monitoring

data available for the Twin Falls facility, EPA determined that it was necessary to evaluate the reasonable potential to exceed water quality standards for ammonia, arsenic, cyanide, silver, and zinc. That analysis is presented in Appendix C. The standards used in that analysis are discussed below.

C. Applicable Water Quality Standards

1. Ammonia

Ammonia criteria are set for protection of aquatic life; there are no criteria to protect human health. Ammonia toxicity rises with higher pH and temperature; reasonable potential analyses were conducted for both summer months (May through September), when the temperatures are higher, and winter (October through April), when the temperatures are lower. Because there were insufficient ambient data to calculate distributions of the ambient temperature and pH, the highest upstream summer (19.5º C, recorded June 21, 2000) and winter temperatures (10.0 º C, recorded April 2, 2003) from the ambient monitoring data were used in the reasonable potential analyses. In addition, the highest pH (8.6, recorded May 24, 2001, for summer; 8.6, recorded April 2, 2003 for winter) from the ambient monitoring data were also used, because higher pH values result in more stringent standards.

a. Summer ammonia standards

(1) *Acute ammonia standard at pH = 8.6:*

$$= \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$$

$$= 1.77 \text{ mg N/L}$$

(2) *Chronic ammonia standard at pH = 8.6 and T = 19.5º C:*

$$= \left[\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right] \times MIN(2.85, 1.45 * 10^{0.028(25-T)})$$

$$= 0.66 \text{ mg N/L}$$

b. Winter ammonia standards:

(1) *Acute ammonia standard at pH = 8.6:*

$$= \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$$

= 1.77 mg N/L

(2) *Chronic ammonia standard at pH = 8.6 and T = 10.0º C:*

$$= \left[\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right] \times MIN(2.85, 1.45*10^{0.028(25-T)})$$

= 7.25 mg N/L

2. Chlorine

Chlorine has a chronic aquatic life criterion of 19 µg/L and an acute aquatic life criterion 11 µg/L.

3. Arsenic

Arsenic has a chronic aquatic life criterion of 150 µg/L and acute aquatic life criterion of 340 µg/L and a human health criteria of 50 µg/L (inorganic form only), none of which is dependent on hardness. Since the human health criterion is the most stringent, reasonable potential analyses were run using the human health criteria.

4. Cyanide

Cyanide has both a chronic aquatic life criterion (5.2 µg/L (weak acid dissociable)) and acute aquatic life criterion (22 µg/L (weak acid dissociable)) and a human health criteria (140 µg/L), none of which is dependent on hardness. Since the chronic aquatic life criterion is the most stringent, reasonable potential analyses were run using that criterion.

5. Silver

Silver has only an acute aquatic life criterion; it is dependent on hardness.

At hardness = 190 mg/L and WER =1.0,

$$\textit{Acute silver standard} = WER \times e^{\{1.72[\ln(\text{hardness})]-6.52\}} \times 0.85$$

= 10.40 µg/L

6. Zinc

At hardness = 190 mg/L and WER =1.0:

a. *Acute zinc standard*

$$= WER \times [e^{\{[0.8473\times [\ln (\text{hardness})]+0.884\}}]\times 0.978$$
$$= 201.9\ \mu g/L$$

b. *Chronic zinc standard*

$$= WER \times [e^{\{0.8473\times[\ln (\text{hardness})]+0.884\}}]\times 0.986$$
$$= 203.5\ \mu g/L$$

D. Development of Water-quality based Permit Limits

1. Wasteload Allocation Development

If EPA determines that a water quality-based limit is required for a pollutant, the first step in calculating a permit limit is development of a wasteload allocation (WLA) for the pollutant. A WLA is the concentration (or loading) of a pollutant that the permittee may discharge without causing or contributing to an exceedance of WQS in the receiving water. The WLAs were calculated based on meeting water quality criteria at "end-of-pipe" for *E. coli* and pH.

a. "End-of-Pipe" WLAs

In cases where there is no dilution available, either because the receiving water exceeds the criteria or because the state does not to authorize a mixing zone for a particular pollutant. When there is no dilution, the criterion becomes the WLA. Establishing the criterion as the WLA ensures that the permittee does not contribute to an exceedance of the criterion. The acute and chronic criteria must be converted to long-term averages (LTAs) and compared to determine which one is more stringent. The more stringent LTA is then used to develop permit limits.

b. WLAs in Total Maximum Daily Loads (TMDLs)

The State assigned WLAs in the Upper Snake Rock TMDL for the City of Twin Falls for total suspended solids (tons/year) and total phosphorus (lbs/day).

2. Permit Limit Derivation

Once the WLA has been developed, EPA applies the statistical permit limit derivation approach described in Chapter 5 of the TSD to obtain daily maximum and monthly average permit limits. This approach takes into account effluent variability (using the

CV), sampling frequency, and the difference in time frames between the monthly average and daily maximum limits.

The daily maximum limit is based on the CV of the data and the probability basis, while the monthly average limit is dependent on these two variables and the monitoring frequency. As recommended in the TSD, EPA used a probability basis of 95 percent for monthly average limit calculation and 99 percent for the daily maximum limit calculation. As with the reasonable potential calculation, when there were not enough data to calculate a CV, EPA assumes a CV of 0.6 for both monthly average, weekly average, and daily maximum calculations.

3. Specific Water Quality-Based Effluent Limits

a. Toxic Substances

The Idaho Water Quality Standards (IDAPA 58.01.02.200.02) require surface waters of the State to be free from toxic substances in concentrations that impair designated uses. Reasonable potential analyses were conducted for a number of toxic substances, including ammonia, arsenic, cyanide, silver, and zinc. None of these showed a reasonable potential to violate water quality standards, based on past effluent data.

(1) Total Residual Chlorine

There was no chlorine data to analyze, so no reasonable potential calculation was possible. Because the facility may use chlorine only infrequently as a back-up if its UV disinfection is off-line for an extended period of time, we have continued the water-quality-based total residual chlorine limits of 0.012 mg/l AML and 0.033 mg/l MDL from the previous permit. In this permit, they will only apply to the effluent during periods of chlorination, during which the City will be required to monitor its effluent for total residual chlorine.

Mass-based limit (lbs/day) = concentration limit (mg/L) × design flow (mgd) × 8.34

Chlorine Maximum Daily Limit

$$0.033 \text{ mg/L} \times 8.56 \text{ mgd} \times 8.34 = 2.36 \text{ lbs/day}$$

Chlorine Average Monthly Limit

$$0.012 \text{ mg/L} \times 8.56 \text{ mgd} \times 8.34 = 0.86 \text{ lbs/day}$$

(2) Ammonia

IDEQ has developed water quality criteria to protect aquatic life against short term and long term adverse impacts from ammonia. Reasonable potential analyses were conducted for ammonia for both the summer months (May – September) and the winter months (October - April), and it was found that more stringent limits did not need to be developed. For additional information on this

reasonable potential analysis, see Appendix C. Under anti-backsliding requirements of CWA §401(o), the previous limits in the permit must be retained.

(3) Metals

IDEQ has established numeric criteria for toxic substances, including metals, under IDAPA 58.010.02.210.01. Because of the number of positive data points from effluent monitoring for arsenic, cyanide, silver, and zinc in the previous permit cycle, we conducted reasonable potential analyses for these parameters. None of them were found to have a reasonable potential to violate water quality standards. See Appendix C for details.

b. Floating, Suspended or Submerged Matter/Oil and Grease

The Idaho Water Quality Standards (IDAPA 58.01.02.200.05) 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. Sediment/Total Suspended Solids (TSS)

The Idaho water quality standards state that sediment shall not exceed quantities which impair designated beneficial uses. The *Upper Snake Rock Watershed Management Plan* interpreted this water quality standard and established a TSS wasteload allocation for the City of Twin Falls of 146.4 tons/year of TSS (mean annual load).

In translating the wasteload allocation into permit limits, EPA followed procedures in the TSD. The first step in developing limits is to determine the time frame over which the WLAs apply. In general, the period over which a criterion applies is based on the length of time the target organism can be exposed to the pollutant without adverse effect. For example, aquatic life criteria generally apply as one-hour averages (acute criteria) or four-day averages (chronic criteria). In the case of total suspended solids, the target organisms are aquatic organisms and TSS affects them by (1) killing them directly, (2) reducing growth rates and resistance to disease, by preventing successful development of eggs and larvae, (3) modifying natural movement or migration patterns, or (4) reducing the natural availabilities of food (page 101 *Upper Snake Rock Watershed Management Plan*). The period over which this effect occurs is uncertain. However, since TSS is not a toxic pollutant, EPA believes that using the WLA as a long term annual average (LTA) is appropriate.

The NPDES regulations at 40 CFR §122.45(d) require that permit limits for publicly owned treatment works (POTWs) be expressed as average monthly limits (AMLs) and average weekly limits (AWLs), unless impracticable. The WLA must be

statistically converted to average monthly and average weekly permit limits.

The objective in setting effluent limits is to establish limits that will result in the effluent meeting the WLA under normal operating conditions virtually all the time. Developing both an AML and AWL for POTWs is consistent with the requirements of EPA regulations and also assures that the long-term average loading requirements of TSS to the river system, as specified in the management plan, are being met. Having both an AML and AWL also ensures good performance of the treatment system. Setting an AWL establishes an upper bound on effluent values used to determine the monthly average and provides a measure of effluent compliance during operational periods between monthly sampling.

Calculating the Average Monthly Limit

The WLA in the TMDL is 146.4 tons per year.

146.4 tons/year × 2000 lbs/ton ÷ 365 days/year = 802 lbs/day (annual average)

Assume LTA = 802 lbs/day:

$AML = LTA \times exp[z\sigma_n - 0.5\sigma_n^2]$ *(from Table 5-2 of the TSD)*

Where:

CV = coefficient of variation = 0.51 (based on facility data from May 2003 – May 2008)

n = 16 (number of samples in a month)

$\sigma_{16}^2 = \ln(CV^2/n + 1) = \ln(0.51^2/16 + 1) = 0.016$

$\sigma_{16} = 0.127$

Z = percentile exceedance probability for AML (95%) = 1.645

$AML = 802 \times exp[(1.645 \times 0.127) - (0.5 \times 0.016)]$

AML = 980 lbs/day

Calculating the Average Weekly Limit

The AWL is calculated by multiplying the AML by the following relationship (from Table 5-3 of the TSD):

$$AWL = \frac{exp\,[Z_m\,\sigma_4 - .5\sigma_4^2]}{exp\,[Z_a\,\sigma_{16} - .5\sigma_{16}^2]} \times AML$$

Where:

CV = coefficient of variation = 0.51 (based on facility data from May 2003 – May 2008)

$\sigma_4^2 = \ln(CV^2/n + 1) = \ln(0.51^2/4 + 1) = 0.063$

σ_4 = 0.251

Z_m = percentile exceedance probability for AWL (99%) = 2.326

Z_a = percentile exceedance probability for AML (95%) = 1.645

$$AWL = \frac{exp\,[(2.326 \times 0.251) - (0.5 \times 0.063)]}{exp\,[(1.645 \times 0.127) - (0.5 \times 0.016)]} \times 980$$

AWL = 1392 lbs/day ~ 1,390 lbs/day

These water quality based loading limits are compared with the technology based effluent limits in Table B-2, below

Table B-2
Comparison of Technology-based and Water quality-based Limits for TSS

Parameter	Average Monthly Limit	Average Weekly Limit
Technology-based	2,142 lbs/day	3,213 lbs/day
Water quality-based	980 lbs/day	1,390 lbs/day
Most stringent	**980 lbs/day**	**1,390 lbs/day**

The water quality-based mass limits are selected and applied in the draft permit as the final effluent limits. The concentration-based technology-based standards are retained; the facility must meet both. If it is discharging at flows that approach or exceed the design flow rate of 8.56, the mass based limit will be more stringent and limiting.

The TSS effluent data from 2003 -- 2008 were examined to see if the historical performance indicated that it could meet the more stringent water-quality based mass limits; it was determined that the facility could not consistently meet the proposed limits. The 95th percentile of the data was 32.4 mg/l, considerably above the 13.5 mg/l needed to meet the monthly average mass limit at the design flow or 20. 2 mg/l needed to meet the weekly average mass limit.

Idaho regulations at IDAPA 58.01.400.03 allow for a compliance schedule the first time a water quality based limitation is applied in a discharge permit. IDEQ has indicated that it intends to certify a schedule for the City to upgrade its facility to meet the more stringent water quality based limits. In the meantime, the secondary treatment, technology based standards of 30 mg/l monthly average and 45 mg/l weekly average and the technology-based mass limits of 2,142 lbs/day monthly

average and 3213 lbs/day weekly average will assure that water quality in the Snake River does not deteriorate from the current condition.

d. pH

The Idaho Water Quality Standards (IDAPA 58.01.02.250.01.a) require surface waters of the State to have a pH value within the range of 6.5 - 9.5 standard units. IDEQ will not authorize a mixing zone for the water quality-based criterion for pH. Therefore, this criterion must be met when the effluent is discharged to the receiving water. The technology-based effluent limits for pH are 6.0 - 9.0 standard units. To ensure that both water quality-based requirements and technology-based requirements are met, the draft permit incorporates the more stringent lower limit of the water quality standards (6.5 standard units) and the more stringent upper limit of the technology-based limits (9.0 standard units).

e. *Escherichia coli* (*E. coli*) Bacteria

The Snake River at Twin Falls is designated for primary contact recreation. EPA policy requires that the criteria for bacteria must be met as the effluent is discharged to the receiving water if the facility discharges to waters designated for primary contact recreation. Waters of the State of Idaho that are designated for recreation are not to contain *E. coli* bacteria in concentrations exceeding 126 organisms per 100 ml as a geometric mean based on a minimum of five samples taken every three to seven days over a thirty day period. Therefore, the draft permit contains a monthly geometric mean effluent limit for *E. coli* of 126 organisms per 100 ml and a minimum sampling frequency of five grab samples in 30 days (IDAPA 58.01.02.251.01.a).

The Idaho water quality rules also state that for primary contact recreation a single water sample that exceeds 406 organisms/100 ml indicates a likely exceedance of the geometric mean criterion, although it is not, in and of itself, a violation of water quality standards. (IDAPA § 58.01.02.251.01.b.ii)

The goal of a water quality-based effluent limit is to ensure a low probability that water quality standards will be exceeded in the receiving water as a result of a discharge, while considering the variability of the pollutant in the effluent (EPA, 1991). Because a single sample value exceeding 406 organisms/100 ml may indicate an exceedance of the geometric mean criterion, EPA has included an instantaneous (single grab sample) maximum effluent limit for *E. coli* of 406 organisms/100 ml, in addition to a monthly geometric mean limit of 126 organisms/100 ml, which directly applies the water quality criterion for *E. coli* to the discharge at the end of pipe. This will ensure that the discharge will have a low probability of exceeding the geometric mean criterion for *E. coli* and provide warning of and opportunity to avoid possible non-compliance with the geometric mean criterion.

Regulations at 40 CFR §122.45(d)(2) require that effluent limitations for continuous discharges from POTWs be expressed as average monthly and average weekly limits, unless impracticable. The terms “average monthly limit” and “average weekly limit”

are defined in 40 CFR §122.2 as being arithmetic (as opposed to geometric) averages. It is impracticable to properly implement a 30-day geometric mean criterion in a permit using monthly and weekly arithmetic average limits. Except when all of the values in that data set are equal, the geometric mean is always less than the arithmetic mean. In order to ensure that the effluent limits are "derived from and comply with" the geometric mean water quality criterion, as required by 40 CFR §122.44(d)(1)(vii)(A), it is necessary to express the effluent limits as a monthly geometric mean and an instantaneous maximum limit.

f. 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.

(1) Total phosphorus

A TMDL for total phosphorus was modified and approved by EPA in 2005. The wasteload allocation of 710 pounds/day was incorporated in the previous permit as the average monthly limit (AML). A maximum daily limit of 1400 pounds/day had originally been derived from the AML and was proposed in the last permit cycle; in response to comments, that limit was changed to an average weekly limit and included in that permit.

Under best professional judgment, we decided that we should use a CV based on more current data and recalculate the average weekly limit directly from the average monthly limit. Using the total phosphorus effluent data from May 2003 to May 2008, we calculated a CV of 0.24.

The AWL is calculated by multiplying the AML by the following relationship (from Table 5-3 of the TSD):

$$AWL = \frac{exp\,[Z_m\,\sigma - .5\sigma^2]}{exp\,[Z_a\,\sigma_n - .5\sigma_n^2]} \times AML$$

Where:

CV = 0.24

n = 4 (ratio of number of samples in a month to the number of samples in a week)

σ_4^2 = $\ln(CV^2/n + 1) = \ln(0.24^2/4 + 1) = 0.014$

σ_4 = 0.120

σ^2 = $\ln(CV^2 + 1) = \ln(0.24^2 + 1) = 0.056$

σ = 0.237

Z_m = percentile exceedance probability for AWL (99%) = 2.326

Z_a = percentile exceedance probability for AML (95%) = 1.645

$$AWL = \frac{exp\,[(2.326 \times 0.237) - (0.5 \times 0.056)]}{exp\,[(1.645 \times 0.120) - (0.5 \times 0.014)]} \times 710$$

$$AWL = 1.395 \times 710$$

AWL = 991 lbs/day ~ 990 lbs/day *(rounded to two significant digits as the 710 lbs/day AML had been rounded from 707 lbs/day, originally calculated as the WLA for City of Twin Falls)*

(2) Nitrogen

In the last permit cycle, the City collected effluent data weekly on nitrate and total Kjeldahl nitrogen. The State has no water quality criteria for these pollutants except a reference under agricultural uses to EPA's "Water Quality Criteria 1972. Using the standard for livestock watering of 100 mg/l as a chronic standard, we evaluated reasonable potential to exceed this standard and found that this discharge is not likely to exceed it.

Appendix C -- Reasonable Potential Calculation

I. Analysis Factors

A. Effluent Flow

The effluent flow used in the equation is the design flow of the facility: 8.56 mgd (13.2 cfs).

B. Upstream (Ambient) Concentration

The ambient concentration in the mass balance equation is based on a reasonable worst-case estimate of the pollutant concentration upstream from the discharge. For criteria that are expressed as maxima, such as ammonia, the 95th percentile of the ambient data is generally used as an estimate of worst-case. Limited monitoring data for ambient ammonia concentrations was available from the ambient surface water monitoring conducted by the facility (see Table 5, above, for a summary of these data). Because of the limited amount of data, the highest ambient ammonia concentration observed during the ambient surface water monitoring (0.068 mg/L ammonia in 2004) was used in the reasonable potential analysis.

It was assumed that ambient concentrations of metals were zero.

C. Upstream Flow

In accordance with Idaho's water quality standards, a mixing zone of 25 percent of the volume of the stream flow is proposed for this permit.

The 1Q10, 7Q10, 1B3, and 30B3 flows from the USGS gage near Kimberly, Idaho, (station #13090000, river mile 617.5) were calculated based on the 1987—2007 time period. Although the historical data are available from 1925, the flow regime has tended toward lower flows in recent decades. These trends are impacted strongly by reservoir operations upstream, which control releases to this stretch of the Snake River; long-term climate trends may also be a factor. Based on our examination of the historical record and these factors, under best professional judgment, we calculated the critical low flows based on a 20 year record; we reasoned that the more recent record was more representative of future conditions than was the whole of the 80+ year record.

Using EPA's D-flow program, we calculated the 1Q10 at 190 cfs and the 7Q10 at 202 cfs. Based on the above standards, twenty five percent of these flows (47.5 and 50.5 cfs, respectively) were used in the mass balance equations for metals and cyanide to determine whether there was reasonable potential to cause exceedances of the acute and chronic criteria.

<u>Ammonia Low Flows</u>

Because the state chronic water quality criteria for ammonia is based on a 30 day average concentration not to be exceeded more than once every three years, the critical low flow that is used for the ammonia chronic calculation is the 30B3, which was calculated at 257 cfs for

both the summer (May – September) and winter (October – April) parts of the year. For acute, the 1B3 flow is needed; it was calculated at 218 cfs for both parts of the year.

Mixing Zone

In accordance with state water quality standards, only IDEQ may authorize mixing zones. IDEQ has authorized a mixing zone of 25% for ammonia, cyanide, silver, arsenic, zinc and nitrate-nitrogen in its pre-certification of the permit.

II. Pollutant Specific Calculations

The calculations performed to obtain the predicted downstream concentrations for each pollutant are shown below.

A. Ammonia

1. Summer Ammonia

In the summer months, the maximum reported effluent value out of 112 available measurements was **1.69 mg/L ammonia** (reported 9/18/05). The coefficient of variation (CV) from the summer ammonia monitoring data was 0.99.

Reasonable Potential Multiplier

The "reasonable potential" multiplier is based on the coefficient of variation (CV) of the data and the number of data points. Where there are fewer than 10 data points to calculate a CV, the TSD recommends using 0.6 as a default value. Using the equations in § 3.3.2 of the TSD, the "reasonable potential" multiplier (RPM) is calculated as follows:

$$p_n = (1 - \text{confidence level})^{1/n}$$

where,

p_n = the percentile represented by the highest concentration
n = the number of samples

This means that the largest value in the data set of *n* data points is greater than the p_n^{th} percentile.

Confidence level = 99% = 0.99

The summer data set contains 112 ammonia effluent samples; therefore:

$$p_{112} = (1-0.99)^{1/112}$$
$$p_{112} = 0.960$$

This means that we can say, with 99% confidence that the maximum reported effluent ammonia concentration in the summer (based on 112 samples) is greater than the 96th percentile.

The reasonable potential multiplier (RPM) is the ratio of the 99th percentile concentration (at the 99% confidence level) to the maximum reported effluent concentration. This is calculated as follows:

$$RPM = C_{.99}/C_{.960} \quad \text{(Equation C-1)}$$

Where,

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$

Where,

$\sigma^2 = \ln(CV^2 + 1)$

$\sigma = \sqrt{\sigma^2}$

CV = coefficient of variation = standard deviation ÷ mean

For the summer ammonia dataset, the following calculations were made:

Given:

Standard Deviation	=	0.226
Mean:	=	0.227
CV	=	0.994

Then:

$\sigma^2 = \ln[(CV^2+1] = 0.687$

$\sigma = \sqrt{\sigma^2} = 0.829$

$z_{0.99} = 2.33$ for the 99th percentile[7]

$z_{0.96} = 1.75$ for the 96th percentile (from z-table)

$C_n = exp\ (z_n\sigma - 0.5\sigma^2)$

$C_{99} = exp([2.33 \times 0.829] - [0.5 \times 0.687]) = 4.89$

$C_{0.96} = exp\ ([1.75 \times 0.829] - [0.5 \times 0.687]) = 3.03$

$RPM = C_{0.99}/C_{0.96} = 4.89/3.03$ (Equation C-1)

RPM = 1.61

The maximum projected effluent concentration (C_e) is estimated by applying the reasonable potential multiplier (RPM) to the maximum reported effluent concentration.

For summer ammonia dataset, this is calculated as follows:

C_e = RPM × Maximum Reported Effluent Concentration

C_e = 1.61× 1.69 mg/L

C_e = 2.7 mg/L

[7] z = the inverse of the normal cumulative distribution function at a given percentile

Chronic Summer Ammonia

For the chronic mixing zone, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d * Q_d = (C_e \times Q_e) + (C_u \times Q_u) \quad \text{(Equation C-2)}$$

or

$$C_d = \frac{(C_e \times Q_e) + (C_u \times Q_u)}{Q_d}$$

where,

C_d = receiving water concentration downstream of the effluent discharge
C_e = maximum projected effluent concentration
= 2,700 µg/L for summer ammonia
Q_e = maximum effluent flow
= 8.56 mgd
C_u = upstream concentration of pollutant
= 68 µg/L
Q_u = upstream flow (30B3)
= 257 cfs (or 166 mgd)

When a mixing zone (%MZ) is allowed, the mass balance equation becomes:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)} \quad \text{(Equation C-3)}$$

A mixing zone of 25% of the Middle Snake River flow was assumed, therefore the equation is:

.

$$C_d = \frac{(2{,}700\ \mu g/L \times 8.56\ mgd) + (68\ \mu g/L \times (166\ mgd \times 0.25))}{8.56\ mgd + (166\ mgd \times 0.25)}$$

C_d = 518 µg/L *(highest projected summer concentration of ammonia at the edge of the chronic mixing zone)*

Acute Summer Ammonia

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the same mass balance equation:

$$C_d = \frac{(C_e \times\times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)} \quad \text{Equation C-3}$$

where

Q_u = upstream flow (1B3)
= 218 cfs (or 141 mgd)

$$C_d = \frac{(2{,}700\ \mu g/L \times 8.56\ mgd) + (68\ \mu g/L \times (141\ mgd \times 0.25))}{8.56\ mgd + (141\ mgd \times 0.25)}$$

C_d = 582 µg/L *(highest projected summer concentration of ammonia at the edge of the acute mixing zone)*

2. Winter Ammonia

In the winter months, the maximum reported effluent value out of 152 available measurements was 5.02 mg/L ammonia (reported 1/8/06). The CV from the winter ammonia monitoring data was 1.665.

The winter ammonia data set contains 152 individual samples; therefore:

$p_{152} = (1-0.99)^{1/152}$
$p_{152} = 0.9701$

CV = 1.665

$\sigma^2 = \ln(CV^2 + 1) = 1.33$
$\sigma = \sqrt{\sigma^2} = 1.15$

$z_{.99} = 2.33$ for the 99th percentile
$z_{0.9701} = 1.88$ for the 97.01st percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$
$C_{0.99} = \exp([2.33 \times 1.15] - [0.5 \times 1.33]) = 7.50$
$C_{0.97} = \exp([1.88 \times 1.15] - [0.5 \times 1.33]) = 4.47$

$RPM = C_{0.99}/C_{0.97} = 7.50/4.47$ (Equation C-1)
RPM = 1.68

C_e = RPM × Maximum Reported Effluent Concentration
$C_e = 1.68 \times 5.02$ mg/L
C_e = 8.4 mg/L

Chronic Winter Ammonia

For the **chronic mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:

C_e = 8,400 µg/L
Q_e = 8.56 mgd
C_u = 68 µg/L
Q_u = 30B3 upstream flow
= 257 cfs (or 166 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration is:

$$C_d = \frac{(8400 \times 8.56) + (68 \times (166 \times .25))}{8.56 + (166 \times .25)}$$

C_d = 1493 µg/L *(highest projected winter concentration of ammonia at the edge of the chronic mixing zone)*

Acute Winter Ammonia

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the same mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:

C_e = 8,400 µg/L
Q_e = 8.56 mgd
C_u = 68 µg/L
Q_u = upstream flow (1B3)
= 218 cfs (or 141 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration is:

$$C_d = \frac{(8400 \times 8.56) + (68 \times (141 \times .25))}{8.56 + (141 \times .25)}$$

C_d = 1,695 µg/L *(highest projected winter concentration of ammonia at the edge of the acute mixing zone)*

B. Cyanide

Out of 30 available data points of cyanide in the effluent, the maximum concentration reported in the effluent was 6 µg/L. Because there were only six data points above the detection level, we used the default CV of 0.6, which is recommended in the TSD.

The data set contains 30 cyanide effluent samples; therefore:

$$p_{30} = (1-0.99)^{1/30}$$

$$p_{30} = 0.8577$$

where:

CV = 0.6

$\sigma^2 = \ln(CV^2 + 1) = 0.307$
$\sigma = \sqrt{\sigma^2} = 0.555$
$z_{.99} = 2.33$ for the 99th percentile
$z_{0.8577} = 1.07$ for the 85.77 percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$
$C_{0.99} = \exp(2.33 \times .555 - 0.5 \times 0.307) = 3.12$
$C_{0.8577} = \exp(1.07 \times .555 - 0.5 \times 0.307) = 1.55$

$RPM = C_{0.99}/C_{0.8577} = 3.12/1.55$ (Equation C-1)
RPM = 2.01

C_e = RPM × Maximum Reported Effluent Concentration
$C_e = 2.01 \times 6$ µg/L
C_e = 12 µg/L

Chronic Cyanide

For the **chronic mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:

C_e = 12 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = upstream flow (7Q10)
= 202 cfs (or 131 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration in the chronic mixing zone is:

$$C_d = \frac{(12 \times 8.56) + (0 \times (131 \times .25))}{8.56 + (131 \times 0.25)}$$

C_d = 2.5 µg/L *(highest projected concentration of cyanide at the edge of the chronic mixing zone)*

Acute Cyanide

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the same mass balance equation.

C_e = 12 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = 190 cfs (or 123 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration in the acute mixing zone is:

$$C_d = \frac{(12 \times 8.56) + (0 \times (123 \times 0.25))}{8.56 + (123 \times 0.25)}$$

C_d = 2.6 µg/L *(highest projected concentration of cyanide at the edge of the acute mixing zone)*

C. Silver

Out of 30 available measurements of silver in the effluent, the maximum concentration reported in the effluent was 10 µg/L (reported in April 2004). The CV from the silver monitoring data was 0.258.

The data set contains 30 silver effluent samples; therefore:

$p_{30} = (1\text{-}0.99)^{1/30}$
$p_{30} = 0.8577$

CV = 0.258
$\sigma^2 = \ln(CV^2 + 1) = 0.064$
$\sigma = \sqrt{\sigma^2} = 0.254$
$z_{.99}$ = 2.33 for the 99th percentile
$z_{0.8577}$ = 1.467 for the 85.77 percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$

$C_{0.99}$ = exp (2.33 × 0.254- 0.5 × 0.064) = 1.75
$C_{0.8577}$ = exp (1.07 × 0.254- 0.5 × 0.064) = 1.27

$RPM = C_{0.99}/C_{0.8577} = 1.75/1.27$ (Equation C-1)
RPM = 1.38

C_e = RPM × Maximum Reported Effluent Concentration
C_e = 1.38× 10 µg/L
C_e = 14 µg/L

Chronic Silver

There is no chronic criterion for silver.

Acute Silver

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:
C_e = 12 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = 190 cfs (or 123 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration in the acute mixing zone is:

$$C_d = \frac{(14 \times 8.56) + (0 \times (123 \times 0.25))}{8.56 + (123 \times 0.25)}$$

C_d = 3.0 µg/L *(highest projected concentration of silver at the edge of the acute mixing zone)*

D. Arsenic

Out of 30 available measurements of arsenic in the effluent, the maximum concentration reported in the effluent was 9 µg/L (reported in October 2004 and April 2007). The CV from the arsenic monitoring data was 0.166.

The data set contains 30 arsenic effluent samples; therefore:

$p_{30} = (1-0.99)^{1/30}$
$p_{30} = 0.8577$

CV = 0.166

$\sigma^2 = \ln(CV^2 + 1) = 0.027$
$\sigma = \sqrt{\sigma^2} = 0.165$
$z_{.99} = 2.33$ for the 99th percentile
$z_{0.8577} = 1.07$ for the 85.77th percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$
$C_{0.99} = \exp(2.33 \times 0.165 - 0.5 \times 0.027) = 1.45$
$C_{0.8577} = \exp(1.07 \times 0.165 - 0.5 \times 0.027) = 1.18$

$RPM = C_{0.99}/C_{0.8577} = 1.45/1.18$ (Equation C-1)
RPM = 1.49

C_e = RPM × Maximum Reported Effluent Concentration
$C_e = 1.49 \times 9$ µg/L
C_e = 13 µg/L

Chronic Arsenic

For the **chronic mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:
C_e = 13 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = upstream flow = 202 cfs (or 131 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration at the edge of the chronic mixing zone is:

$$C_d = \frac{(13 \times 8.56) + (0 \times (131 \times .25))}{8.56 + (131 \times 0.25)}$$

C_d = 2.7 µg/L *(highest projected concentration of arsenic at the edge of the chronic mixing zone)*

Acute Arsenic

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)} \quad \text{(Equation C-3)}$$

Where:

C_e = 13 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = 190 cfs (or 123 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration in the acute mixing zone is:

$$C_d = \frac{(13 \times 8.56) + (0 \times (123 \times 0.25))}{8.56 + (123 \times 0.25)}$$

C_d = 2.8 µg/L *(highest projected concentration of arsenic at the edge of the acute mixing zone)*

E. Zinc

Out of 30 available measurements of zinc in the effluent, the maximum concentration reported in the effluent was 60 µg/L (reported in April 2008). The CV from the zinc monitoring data was 0.366.

$p_{30} = (1-0.99)^{1/30}$
$p_{30} = 0.8577$

CV = 0.366

$\sigma^2 = \ln(CV^2 + 1) = 0.126$
$\sigma = \sqrt{\sigma^2} = 0.354$
$z_{.99} = 2.33$ for the 99th percentile

$z_{0.8577}$ = 1.07 for the 85.77th percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$

$C_{0.99} = \exp(2.33 \times 0.354 - 0.5 \times 0.126) = 2.14$
$C_{0.8577} = \exp(1.07 \times 0.354 - 0.5 \times 0.126) = 1.37$

$RPM = C_{0.99}/C_{0.8577} = 2.14/1.37$ (Equation C-1)
RPM = 1.56

C_e = RPM × Maximum Reported Effluent Concentration
C_e = 1.56× 60 µg/L
C_e = 94 µg/L

Chronic Zinc

For the **chronic mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:
C_e = 94 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = upstream flow
= 202 cfs (or 131 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration is:

$$C_d = \frac{(94 \times 8.56) + (0 \times (131 \times .25))}{8.56 + (131 \times 0.25)}$$

C_d = 19 µg/L *(highest projected concentration of zinc at the edge of the chronic mixing zone)*

Acute Zinc

For the **acute mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)}$$ (Equation C-3)

Where:

C_e = 94 µg/L
Q_e = 8.56 mgd
C_u = 0 µg/L
Q_u = upstream flow
= 190 cfs (or 123 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration is:

$$C_d = \frac{(94 \times 8.56) + (0 \times (123 \times 0.25))}{8.56 + (123 \times 0.25)}$$

C_d = 20 µg/L *(highest projected concentration of zinc at the edge of the acute mixing zone)*

F. Nitrate—Nitrogen

Out of 263 available measurements of nitrate-nitrogen in the effluent, the maximum concentration reported in the effluent was 90 mg/L (reported in September 2007). The CV from the nitrate-nitrogen monitoring data was 0.321.

$p_{263} = (1-0.99)^{1/263}$
$p_{263} = 0.9826$

CV = 0.321

$\sigma^2 = \ln(CV^2 + 1) = 0.098$
$\sigma = \sqrt{\sigma^2} = 0.313$
$z_{.99}$ = 2.33 for the 99th percentile
$z_{0.9826}$ = 2.11 for the 98.26th percentile (from z-table)

$C_n = \exp(z_n\sigma - 0.5\sigma^2)$

$C_{0.99} = \exp(2.33 \times 0.313 - 0.5 \times 0.098) = 1.97$
$C_{0.9826} = \exp(2.11 \times 0.313 - 0.5 \times 0.098) = 1.84$

$RPM = C_{0.99}/C_{0.9826} = 1.97/1.84$ (Equation C-1)
RPM = 1.07

C_e = RPM × Maximum Reported Effluent Concentration
C_e = 1.07× 90 mg/L
C_e = 96 mg/L

Chronic Nitrate-nitrogen

For the **chronic mixing zone**, the maximum expected receiving water concentration C_d is determined using the following mass balance equation:

$$C_d = \frac{(C_e \times Q_e) + (C_u \times (Q_u \times \%MZ))}{Q_e + (Q_u \times \%MZ)} \quad \text{(Equation C-3)}$$

Where:

C_e = 96 mg/L
Q_e = 8.56 mgd
C_u = 1.65 mg/L
Q_u = upstream flow
= 202 cfs (or 131 mgd)
%MZ = 0.25

The resulting maximum projected downstream concentration is:

$$C_d = \frac{(96 \times 8.56) + (1.65 \times (131 \times .25))}{8.56 + (131 \times 0.25)}$$

C_d = 21 mg/L *(highest projected concentration of nitrate-nitrogen at the edge of the chronic mixing zone)*

G. Evaluation of Reasonable Potential

In Table C-1, below, the highest projected concentrations at the edge of the mixing zone are compared with the most stringent criterion to see if they exceed the criteria. In none of these comparisons does the projected concentration exceed the criterion, so we have determined that there is not a reasonable potential to violate any of the standards evaluated.

Table C-1

Reasonable Potential Calculation

Pollutant	Max. Reported Effluent Concentration (µg/L)	Reasonable Potential Multiplier	Max. Projected Effluent Concentration (µg/L)	Upstream concentration (µg/L)	Highest Projected Downstream Concentration (µg/L)		Most Stringent Criterion (µg/L)[17]	Reasonable Potential to exceed most stringent criterion?
					Acute	Chronic		
Ammonia (summer)[18]	1690	1.61	2700	68	582	518	660	no
Ammonia (winter)[19]	5020	1.68	8400	68	1695	1493	1770	no
Cyanide	6	2.01	12	0	2.6	2.5	5.2	no
Silver	10	1.38	14	0	3.0	--[20]	10.4	no
Arsenic	9	1.49	13	0	2.8	2.7	50	no
Zinc	60	1.56	94	0	20	19	201.9	no
Nitrate-Nitrogen	90,000	1.07	96,000	1650	--	21,000	100,000	no

[17] From §II.C in Appendix B, above.
[18] May 1 – September 30
[19] October 1 – April 30
[20] There is no chronic criterion for silver

Appendix D – Upper Snake Rock Watershed Pollutant Trading

1. How to Sell Credits for Pollutant Trading

The city of Twin Falls is authorized under this permit to trade total phosphorus (TP) credits with other eligible facilities, pursuant to the requirements in Idaho's Water Quality Pollutant Trading Guidance 2003; the Upper Snake Rock Watershed Management Plan, Modification, August 2005; and the conditions contained within this permit.

2. Timing of Pollutant Trade

A facility may sell available phosphorus credits (in lbs/day for a specified month) to a downstream facility using the Trade Tracking System operated by the Idaho Clean Water Cooperative to officially record the credit transaction. The seller's effective discharge is increased for that month by adding the credit amount to its reported average monthly phosphorus discharge so that its adjusted discharge is higher. The seller may not sell so many credits that its adjusted average monthly discharge exceeds its average monthly limit.

3. Procedure for Transferring Credits

Credits can only be traded for the calendar month in which the credit was generated (when the seller decreased its discharge of phosphorus below its average monthly limit to establish the amount of the credit). The selling of phosphorus credits affects only the average monthly limit and does not affect the facility's maximum daily phosphorus limit.

4. Reporting Pollutant Trades to EPA and IDEQ

To create a valid transfer of a credit, the authorized buyer and seller must complete a Trade Notification Form, available from the Idaho Clean Water Cooperative. The buyer must submit it to the Cooperative by the last day of the month following the generation of the credit. The Cooperative records the trade in the accounts for the buyer and seller in accordance with the information reported on the Trade Notification Form.

The permittee shall submit to EPA (with copies to IDEQ) a phosphorus-specific discharge monitoring report (DMR) and the Trade Summary Report provided by the Idaho Clean Water Cooperative. The Trade Summary Report will provide (A) the permittee's actual average monthly phosphorus discharge; (B) the total amount of credits (in lbs/day) bought, if any; (C) the total amount of credits (in lbs/day) sold, if any; and (D) the permittee's adjusted discharge, which is equal to A – B + C. The Permittee shall record both (A) and (D) on the DMR.

All DMRs must be submitted in accordance with Section III.B of the permit. The phosphorus-specific DMR which reports a trade provides the actual phosphorus and "adjusted discharge" and must be submitted by the 10th day of the second month following sampling.

If a Trade Notification Form is provided by the buyer and seller but the credits are not available for transfer to the buyer, then the trade is not recorded in the Trade Tracking System and the buyer is subject to noncompliance penalties for any actual discharge over its permit limit. The amount of credits that are available for purchase is not the responsibility of EPA. Compliance with the permittee's effluent limit shall only be affected by credits that have been validly transferred by the last day of the month following the generation of the credit.

5. Recordkeeping System

No trade is valid unless it is recorded through the Trade Tracking System operated by the Idaho Clean Water Cooperative (or alternatively, IDEQ). The Idaho Clean Water Cooperative records all trades and generates a monthly summary report of all trades valid for each calendar month. The Trade Notification Form must be submitted to the Cooperative by the last day of the month following the generation of the credit in order for it to be recorded in the Trade Tracking System in time to be reported in the monthly Trade Summary Report and submitted with DMR postmarked by the 10^{th} of the second month following the generation of the credit.

EPA EXHIBIT # 4

ADMINISTRATIVE RECORD # 22

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

is authorized to discharge from a facility located in Twin Falls, Idaho, at the following location:

Outfall	Receiving Water	Latitude	Longitude
001	Snake River	42^0 36' 36" N	114^0 29' 06 W

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective ***insert date***

This permit and the authorization to discharge shall expire at midnight, ***insert date***

The permittee shall reapply for a permit reissuance on or before ***insert date***, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this day of , 2009,

Draft
Michael A. Bussell, Director
Office of Water and Watersheds

Table of Contents

List of Tables

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be postmarked by the 10th day of the month. (see §III.B)
2. Surface Water Monitoring Report	Surface water monitoring results for the calendar year, must be submitted no later than January 31 of each year. (see §I.D)
3. Compliance Schedule for Total Suspended Solids	Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule for total suspended solids must be submitted no later than the schedule date. Due dates: July 1, 2010; July 1, 2011; July 1, 2012; and July 1, 2014. (see § I.D)
4. Compliance Schedule for Establishing a Stream Gage	The permittee must establish a USGS-approved stream gage in the Snake River by one year after the effective date of this permit. The permittee must inform EPA, IDEQ and USGS in writing of the beginning date of operation of the stream gage by 30 days after the stream gage is operational,
5. Quality Assurance Plan (QAP)	The permittee must provide EPA and Idaho Department of Environmental Quality (IDEQ) with written notification that the Quality Assurance Plan has been developed and implemented within 90 days after the effective date of the final permit (see §II.C.). The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.C)
6. Toxicity Reduction Evaluation Plan	The permittee must submit to EPA a copy of its TRE workplan within 90 days after the effective date of this permit. (see §I.C.5.a)
7. Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the Operations and Maintenance Plan has been developed or updated and is being implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.B)
8. Best Management Practices (BMP) Plan	The permittee must provide EPA and IDEQ with written notification that the Plan has been updated and implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.D)

Item	Due Date
9. Local Limits Evaluation	Within 180 days after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation. (See §II.A.5)
10. Whole Effluent Toxicity Test Results	WET test results are due with the DMRs for April and October, i.e., postmarked by May 10 and November 10, respectively. They should also be submitted with the next permit application. (See § I.D.7)
11. Expanded Effluent Test Results	Expanded effluent test results are due with the DMRs for April or October, i.e., postmarked by May 10 or by November 10, respectively, in the 2nd, 3rd, and 4th years of the permit term. They should also be submitted with the next permit application. (See § I.B)
12. Pretreatment Report	The permittee must submit a pretreatment report annually by November 1. This report will cover the period of October 1 of the previous year to September 30 of the current year. (See §II.A.9)
13. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone to (206) 553-1846 within 24 hours after the time the permittee becomes aware of the circumstances including exceedances of the maximum instantaneous limit for *E. coli* and the maximum daily limits for ammonia and total residual chlorine. (See § III.G)
14. Emergency Response and Public Notification Plan	The permittee must submit written notice to EPA and IDEQ that an overflow emergency response and public notification plan has been developed and implemented within 180 days after the effective date of the final permit. (See § II.F)
15. NPDES Application Renewal	The application must be submitted at least 180 days before the expiration date of the final permit. (see §V.B)

I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Snake River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring Requirements

1. Pollutant Trading.

The permittee may engage in pollutant trading for average monthly discharges of total phosphorus, pursuant to the requirements in Idaho's Water Quality Pollutant Trading Guidance 2003. No trading is allowed to adjust discharges to meet maximum daily limits or for other pollutants. See Appendix A for details about the requirements for purchasing and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ).

2. Effluent Limitations.

The permittee must limit and monitor discharges from outfall 001 as specified in Table 1, below. All limits represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times, unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

See notes at the end of the table.

Table 1

Effluent Limitations and Monitoring Requirements

	Effluent Limitations			Monitoring Requirements		
Parameter	**Average Monthly Limit**	**Average Weekly Limit**	**Maximum Daily Limit**	**Sample Location**	**Sample Frequency**	**Sample Type**
Flow, mgd	---	---	---	Effluent	Continuous	Recording
Biochemical Oxygen Demand (BOD_5)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day	3,213 lbs/day	---	Effluent	4/week	Calculation[3]
Total Suspended Solids (TSS)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
	≥85% removal	---	---	---	---	Calculation[2]

Table 1

Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations			Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
TSS (cont.)	2,142 lbs/day[4]	3,213 lbs/day[4]	--	Effluent	4/week	Calculation[3]
	980 lbs/day[5]	1,390 lbs/day[5]	---	Effluent	4/week	Calculation[3]
E. coli Bacteria	126 colonies/ 100 mL[6]	---	406 colonies/ 100 mL[7]	Effluent	5/month[8]	Grab
pH	6.5 – 9.0			Effluent	1/day	Grab
Total Phosphorus	710 lbs/day	990 lbs/day	---	Effluent	1/week	24-hour composite
Total Ammonia as N (5/1 – 9/30)	3.8 mg/L	---	5.4 mg/L	Effluent	1/week	24-hour composite
	247 lbs/day	---	351 lbs/day	Effluent	1/week	Calculation[3]
Total Ammonia as N (10/1– 4/30)	5.2 mg/L	---	7.5 mg/L	Effluent	1/week	24-hour composite
	338 lbs/day	---	488 lbs/day	Effluent	1/week	Calculation[3]
Temperature	--	--	--	Influent & Effluent	continuous[9]	Recording
Total Residual Chlorine	0.012[10] mg/L	--	0.033 mg/L	Effluent	1/day	Grab
	0.86 lbs/day	--	2.36 lbs/day	Effluent	1/day	Grab
Nitrate-Nitrogen[11]	---	---	---	Effluent	1/week	24-hour composite
Total Kjeldahl Nitrogen[11]	---	---	---	Effluent	1/week	24-hour composite
Whole Effluent Toxicity	---	---	---	Effluent	2/year [12]	24-hour composite
Expanded Effluent Testing[13]	--	--	--	Effluent	1 each in 2nd, 3rd, & 4th years of the permit[14]	24-hr composite

[1] Influent and effluent composite samples shall be collected during the same 24-hour period.
[2] Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.
[3] Loading is calculated by multiplying the concentration (mg/L) by the flow (mgd) on the day sampling occurred and a conversion factor of 8.34.

[4] The interim mass based limits for TSS apply until the facility achieves compliance with the final limits, but no later than June 30, 2014; see §I.C, below.
[5] The final mass based limits for TSS apply as soon as possible but no later than June 30, 2014; see §I.C, below.
[6] The monthly average for *E. coli* is the geometric mean of all samples taken during the month.
[7] This is an instantaneous maximum limit, applicable to each grab sample without averaging.
[8] Five samples taken every three (3) to seven (7) days over a thirty (30) day period.
[9] Continuous temperature monitoring means recording temperature in 1 hour intervals, 24 hours per day.
[10] The chlorine limits apply and the monitoring is required only when chlorine is being used. The monthly average limit for total residual chlorine is below the quantifiable limits using EPA approved analytical methods. EPA will use 0.032 mg/L (the Minimum Level) as the compliance evaluation level for this limit along with the corresponding mass level: 2.28 lbs/day.
[11] If analyses are showing non-detect, the method detection limits in Table 3 must be achieved.
[12] in April and October
[13] See NPDES Permit Application Form 2A, Part D for the list of pollutants to include in this testing.
[14] Expanded effluent testing must occur on the same day as a whole effluent toxicity test and must be submitted with the WET test results with the next DMR as well as with the next permit application.

3. The permittee must report within 24 hours to EPA at (206) 553-1846 any violation of the maximum daily limits for total residual chlorine or ammonia or of the instantaneous maximum limit for *E. coli*. The permittee must report violations of all other effluent limits at the time that discharge monitoring reports are submitted (See §III.B and §III.G, below).

4. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

5. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.

6. Reporting Low Results.

   a) For all effluent monitoring, the permittee must use methods that can achieve a minimum level (ML) less than the effluent limitation. The minimum level is defined as 3.18 × method detection limit (MDL); see Table 3 below for MDLs. For parameters that do not have effluent limitations, the permittee must use methods that can achieve MDLs less than or equal to those specified in Table 3.

   b) For purposes of reporting on the Discharge Monitoring Report (DMR) for a single sample, if a value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the permittee must report "less than {numeric value of the ML}."

   c) For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the permittee must report "less than {numeric value of the ML}." If the average value is equal to or greater than the ML, the permittee must report the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Compliance Schedule for Total Suspended Solids

1. The permittee must comply with all effluent limitations and monitoring requirements in Table 1, above, beginning on the effective date of this permit, except those for which a compliance schedule is specified in § I.C.2, below.

2. A schedule of compliance is authorized for achieving compliance with the final mass-based limits for Total Suspended Solids. The permittee must achieve compliance with the final

mass-based effluent limitation for Total Suspended Solids set forth in Table 1 of this permit as soon as possible, but not later than July 1, 2014.

3. While the schedule of compliance specified in § I.C.2 is in effect, the permittee must:

   a) meet the concentration-based and interim mass-based effluent limits and the minimum removal rate required in Table 1; and

   b) meet the milestones listed in §I.C.5, below.

4. Interim Requirements for the Schedule of Compliance

   a) By July 1, 2010, the permittee must complete the Chemical Enhancement Primary Treatment (CEPT);.

   b) By July 1, 2011, the permittee must develop a facility plan to achieve the final TSS mass limits;

   c) By July 1, 2012, the permittee must select a design alternative and bid to begin construction to achieve final TSS mass effluent limitations;

   d) By July 1, 2014, the permittee must complete start-up and optimization of its chosen design alternative and achieve compliance with the final TSS mass-based effluent limitations of Table 1 of the permit.

5. The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the total suspended solids mass effluent limitations. The annual Report of Progress must be submitted by July 1 of each year, beginning on July 1, 2010, and annually thereafter, until compliance with the TSS mass effluent limits is achieved. See also Part III.J., "Compliance Schedules". At a minimum, the annual report must include:

   a) An assessment of the previous year of TSS effluent data and comparison to the TSS mass effluent limitations.

   b) A report on progress made towards meeting the TSS mass effluent limitations, including the applicable deliverable required under §I.C.4, above.

   c) Further actions and milestones targeted for the upcoming year.

D. Whole Effluent Toxicity Testing Requirements

The permittee must conduct chronic toxicity tests on effluent samples from outfall 001. Testing must be conducted in accordance with subsections 1 through 7, below.

1. Toxicity testing must be conducted on 24-hour composite samples of effluent. In addition, a split of each sample collected must be analyzed for the chemical and physical parameters required in § I.B, above. When the timing of sample collection coincides with that of the sampling required in § I.B, analysis of the split sample will fulfill the requirements of § I.B as well.

2. Chronic Test Species and Methods

   a) Chronic tests must be conducted twice per year, once in April and once in October concurrently with the pretreatment sampling for metals and, when applicable, concurrently with expanded effluent testing.

   b) The permittee must conduct short-term tests with the water flea, Ceriodaphnia dubia (survival and reproduction test), and the fathead minnow, Pimephales promelas (larval survival and growth test), for the first three suites of tests. After this screening period,

monitoring must be conducted using the most sensitive species. Chronic toxicity testing requires a fresh sample every other day (day 1, 3, 5). The effluent data must be obtained from the composite sample used for day 1 toxicity tests. Toxicity test samples for days 1, 3 and 5 will be analyzed for BOD5, TSS, E. coli, alkalinity, ammonia, conductivity, dissolved oxygen, hardness, pH, temperature, and total residual chlorine (if used).

c) The presence of chronic toxicity must be determined as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

d) Results must be reported in TUc (chronic toxic units), TUc = 100 / IC25. If acute toxicity (lethality) is noted during the chronic test, the permittee must report the LC_{50} also.

3. Toxicity Triggers

a) Chronic Toxicity Trigger. If the results of the chronic toxicity test exceed 4 TU_c, the results show chronic toxicity, and the permittee must conduct accelerated toxicity testing. See § C.4, below.

b) Acute Toxicity Trigger. If acute toxicity is demonstrated and the LC_{50} is higher than 3.85 TU_a, the permittee must conduct accelerated toxicity testing. See § C.4, below.

4. Accelerated testing

a) If the chronic testing result exceeds 4.0 TUc, or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a, the permittee must conduct six more tests, at two week intervals over the following twelve-week period, beginning within two weeks of receipt of the sample results that exceed the trigger levels.

b) If chronic toxicity exceeds 4.0 TU_c or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a in any of the six additional tests, the permittee must develop and initiate a Toxicity Reduction Evaluation (TRE) workplan, as described in § E.5, below.

c) If none of the six tests required under this section indicates toxicity, the permittee may return to the normal testing frequency.

5. Toxicity Reduction Evaluation (TRE)

a) TRE Workplan Development.

The permittee must submit to EPA a copy of its TRE workplan [1-2 pages] within 90 days after the effective date of this permit. This plan must describe the steps the permittee intends to follow in the event that whole effluent toxicity testing shows statistically significant toxicity at the dilution that corresponds to that anticipated at the edge of the chronic mixing zone (4:1) and should include at a minimum:

i) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

ii) A description of the facility's strategy for maximizing in-house treatment efficiency and employing good housekeeping practices;

iii) A list of all chemicals used in the operation of the facility; and

iv) A discussion about who will conduct a toxicity identification evaluation (TIE) (i.e., in-house or other) if one is necessary.

b) TRE Workplan Implementation.

i) The TRE workplan is implemented if whole effluent toxicity testing shows toxicity greater than exceeds 4 TU_c or 3.85 TU_a.

ii) Accelerated testing required in § I.C.4 is considered part of the first step of implementing the TRE.

iii) The permittee must begin implementing the TRE within thirty (30) days after receipt of the accelerated testing sample results in excess of trigger levels. The permittee may use *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, EPA/833-B-99-002, August 1999, in developing a TRE workplan.

6. Quality Assurance

The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger (i.e. 25%); two dilutions above the RWC, and two dilutions below the RWC.

a) All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002, and individual test protocols.

b) In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

(i) If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.

(ii) If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days after receipt of the test results.

(iii) Control and dilution water must be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water must also be used. Receiving water may be used as control and dilution water upon notification of EPA and IDEQ. In no case may water that has not met test acceptability criteria be used for either dilution or control.

7. Reporting

a) Results of toxicity tests, including any accelerated testing conducted during the month, must be reported on the next Discharge Monitoring Report (DMR) after receiving the results of the test and with the next permit application.

b) The permittee must attach to the DMR a report that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; (3) the flow rate at the time of sample collection; and (4) the results of the effluent analysis for chemical parameters including expanded effluent testing required for the outfall as defined in §I.B.2.

c) The permittee must report test results for chronic tests in accordance with the guidance in the chapter on “Report Preparation and Test Review” found in Short-Term Methods

for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (the "manual"), Fourth Edition, EPA/821-R-02-013, October 2002.

E. Surface Water Monitoring Requirements

The permittee must conduct surface water monitoring in each calendar quarter of the year as indicated in Table 2, below.

1. Pollutant and water quality parameter monitoring locations

   a) Pollutant and water quality parameter monitoring must be conducted in the Snake River at monitoring stations approved by IDEQ. These monitoring points must be:

      (i) One upstream of the influence of the facility's discharge, and

      (ii) For selected pollutants and parameters, one downstream of the facility's discharge, at a point where the effluent and the Snake River are completely mixed.

   b) The permittee must seek approval from IDEQ for any changes to the surface water monitoring stations. A failure to obtain IDEQ approval of surface water monitoring stations does not relieve the permittee of the surface water monitoring requirements of this permit.

2. Sample Collection

   a) To the extent practicable, surface water sample collection must occur on the same day as effluent sample collection.

   b) All surface water samples must be grab samples.

3. Flow measurement

The flow rate must be recorded at least at the same time that other surface water parameters are sampled. See also §I.E.7, below, for the compliance schedule for establishing a stream gage.

4. Sample Analysis

Samples must be analyzed for the parameters listed in Table 2 and must achieve the method detection limits (MDLs) shown in Table 3, unless results consistently exceed a higher MDL for another approved method, in which case, that method may be used.

See notes on next page.

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Flow	mgd	daily[15] Upstream	gage
TSS	mg/L	4/year[16] Upstream	Grab
E. coli bacteria	colonies/100 mL	4/year[16] Upstream	Grab
Dissolved oxygen	mg/L	4/year[16] Upstream	Grab
pH	standard units	4/year[16] Upstream and Downstream	Grab
Temperature	°C	4/year[16] Upstream and Downstream	Grab

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Total ammonia as N	mg/L	4/year[16] Upstream and Downstream	Grab
Total Nitrate as N	mg/L	4/year[16] Upstream	Grab
Total Nitrite as N	mg/L	4/year[16] Upstream	Grab
Total Phosphorus as P	mg/L	4/year[16] Upstream	Grab
Total Residual Chlorine	mg/L	4/year[16] Upstream and Downstream[17]	Grab
Arsenic[18]	mg/L	4/year[16] Upstream	Grab
Cadmium[18]	mg/L	4/year[16] Upstream	Grab
Chromium[18]	mg/L	4/year[16] Upstream	Grab
Copper[18]	mg/L	4/year[16] Upstream	Grab
Cyanide[18]	mg/L	4/year[16] Upstream	Grab
Lead[18]	mg/L	4/year[16] Upstream	Grab
Mercury[18]	mg/L	4/year[16] Upstream	Grab
Nickel[18]	mg/L	4/year[16] Upstream	Grab
Silver[18]	mg/L	4/year[16] Upstream	Grab
Zinc[18]	mg/L	4/year[16] Upstream	Grab
Molybdenum[18]	mg/L	4/year[16] Upstream	Grab
Selenium[18]	mg/L	4/year[16] Upstream	Grab
Hardness	mg/L	4/year[16] Upstream	Grab

[15] Until a stream gage is established at Twin Falls, this requirement is 4 times a year at the same time as the surface water sampling is conducted; flow data should be reported for the Kimberly gage plus any additional flow data that the City chooses to submit to represent the Snake River flow at the Twin Falls outfall. Once a gage has been established and calibrated, the City must inform EPA and IDEQ and begin recording flow of the Snake River on a daily basis.

[16] 4/year means once in each calendar quarter.

[17] Downstream chlorine monitoring is only required if chlorine is being used.

[18] Arsenic, cadmium, chromium, copper, cyanide, lead, nickel, silver, zinc, molybdenum, and selenium must be analyzed as dissolved. Mercury must be analyzed as total.

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Flow	---
TSS	---
E. coli Bacteria	---
Dissolved Oxygen	2.0
pH	---
Temperature	---
Total Ammonia as N	0.01
Total Kjeldahl Nitrogen	0.05
Total Nitrate as N	0.02
Total Nitrite as N	0.01
Total Phosphorus as P	0.01
Total Residual Chlorine	0.01
Arsenic	0.0005
Cadmium	0.00005
Chromium	0.0001
Copper	0.0005
Cyanide	0.005
Lead	0.0006
Mercury	0.0002
Nickel	0.0005
Silver	0.0001
Zinc	0.0018
Molybdenum	0.0003
Selenium	0.0006
Hardness (as $CaCO_3$)	0.001

5. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under § II.C, “Quality Assurance Plan.”

6. Surface water monitoring results for the previous calendar year must be submitted to EPA by January 31of each year. At a minimum, the report must include the following:

   a) Dates of sample collection and analyses.

   b) Results of sample analysis.

   c) Relevant quality assurance/quality control (QA/QC) information.

7. Compliance Schedule for establishing a Stream Gage in the Snake River at Twin Falls

   a) By one year after the effective date of this permit, the permittee must establish a USGS-approved stream gage in the Snake River within ¼ mile upstream of the outfall from the permitted facility.

   b) Beginning one year after the effective date of this permit, the permittee must begin to record daily flows in the Snake River at the established stream gage. If the gage is installed and operational before the due date, the permittee must record and report daily data, beginning at the earliest possible date after the stream gage is installed.

   c) By January 31 of each year, the permittee must submit to EPA streamflow data for the previous calendar year.

   d) By 30 days after the stream gage is operational, the permittee must inform EPA, IDEQ and USGS in writing of the beginning date of operation.

II. Special Conditions

A. Pretreatment Requirements

1. Implementation

The permittee must implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original approved pretreatment program submission, any program amendments submitted thereafter and approved by EPA, and the general pretreatment regulations (40 CFR Part 403) and any amendments thereof. At a minimum, the permittee must carry out the following activities:

   a) Enforce prohibitive discharge standards as set forth in 40 CFR §403.5(a) and (b), categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act (where applicable), and local limitations and BMPs developed by the permittee in accordance with 40 CFR §403.5(c), whichever are more stringent and are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations must be defined as pretreatment standards under Section 307(d) of the Act.

   b) Implement and enforce the requirements of the most recent and EPA-approved portions of local law and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.

   c) Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee must notify these users of applicable pretreatment standards in accordance with 40 CFR §403.8(f)(2)(iii).

   d) Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents must contain, at a minimum, conditions identified in 40 CFR

§403.8(f)(1)(iii), including Best Management Practices, if applicable. The permittee must follow the methods described in its implementation procedures for issuance of individual permits.

e) Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment standards and requirements. The permittee must retain all records relating to its pretreatment program activities for a minimum of three years, as required by 40 CFR §403.12(o), and must make such records available to EPA upon request. The permittee must also provide public access to information considered effluent data under 40 CFR Part 2.

f) Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Multi-Jurisdictional Agreement (MJA) that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

g) Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A complete inspection of all SIUs and sampling of all SIUs' effluent must be conducted at least annually.

h) Require SIUs to conduct wastewater sampling as specified in 40 CFR §403.12(e) or (h). Frequency of wastewater sampling by the SIUs must be appropriate for the character and volume of the wastewater but no less than twice per year. Sample collection and analysis must be performed in accordance with 40 CFR §403.12(b)(5)(ii) through (v) and 40 CFR Part 136. In cases where the Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the permittee must require the User to submit documentation to determine compliance with the Standard. If the permittee elects to conduct all non-domestic user monitoring for any SIU instead of requiring self-monitoring, the permittee must conduct sampling in accordance with the requirements of this paragraph, and the requirements of 40 CFR §403.12(g)(2).

i) Enforce and obtain remedies for any industrial user noncompliance with applicable pretreatment standards and requirements. This must include timely and appropriate reviews of industrial reports to identify all violations of the user's permit, the local ordinance, and federal pretreatment standards and requirements. Once violations have been uncovered, the permittee must take timely and appropriate action to address the noncompliance. The permittee's enforcement actions must follow its EPA-approved enforcement response procedures.

j) Publish, at least annually, in a newspaper or newspapers of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR §403.8 (f)(2)(viii).

k) Maintain adequate staff, funds and equipment to implement its pretreatment program.

l) Conduct an analysis annually to determine whether influent pollutant loadings are approaching the maximum allowable headworks loadings calculated in the permittee's most recent local limits calculations. Any local limits found to be inadequate by this analysis must be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.

2. Spill Prevention and Slug Discharges

The permittee must implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users.

a) Control mechanisms for SIUs must contain requirements to control slug discharges if determined by the POTW to be necessary [40 CFR §403.8(f)(1)(iii)(B)(6)].

b) SIUs must be evaluated for the need for a plan or other action to control slug discharges within 1 year of being designated an SIU.

c) SIUs must notify the POTW immediately of any changes at their facilities affecting the potential for a slug discharge [40 CFR §403.8(f)(2(vi)].

3. Enforcement Requirement

Whenever EPA finds, on the basis of any available information, that the owner or operator of any source is introducing a pollutant into the POTW in violation of national pretreatment standards, including prohibited discharges, local limits, or categorical standards, or is causing interference or pass through, EPA may notify the owner or operator of the POTW of such violation. If, within 30 days after EPA sends such notification to the POTW, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in Section 309(f) of the Clean Water Act.

4. Modification of the Pretreatment Program

If the permittee elects to modify any components of its pretreatment program, it must comply with the requirements of 40 CFR §403.18. No substantial program modification, as defined in 40 CFR §403.18(b), may be implemented prior to receiving written authorization from EPA.

5. Local Limits Evaluation

Within 180 days after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation pursuant to 40 CFR §403.5(c)(1). The study must take into account water quality in the receiving stream, inhibition levels for biological processes in the treatment plant, and sludge quality goals. The study must address at least the following pollutants: arsenic, 5-day biochemical oxygen demand, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, total suspended solids, and zinc and any other pollutants of concern. The permittee must address total ammonia as N if the POTW accepts non-domestic discharges of ammonia. Submitted results of the study must include proposed local limits, maximum allowable headworks loadings, all supporting calculations, and all assumptions.

6. Control of Undesirable Pollutants

The permittee must not allow introduction of the following pollutants into the publicly owned treatment works (POTW):

a) Pollutants which will create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140º F or 60º C using the test methods specified in 40 CFR §261.21;

b) Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0, unless the POTW is designed to accommodate such discharges;

c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW (including the collection system) resulting in interference;

d) Any pollutant, including oxygen demanding pollutants (e.g. BOD_5, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e) Heat in amounts which inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40º C (104º F) unless the Regional Administrator, upon request of the POTW, approves alternate temperature limits;

f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

7. Requirements for Industrial users

The permittee must require any industrial user of its treatment works to comply with any applicable requirements in 40 CFR Parts 403 through 471.

8. Sampling Requirements

a) Parameters: The permittee must sample influent and effluent from the POTW for arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc. Metals must be analyzed and reported as total metals. If the POTW accepts ammonia from industrial sources, the permittee must also sample the POTW influent and effluent for ammonia. The permittee must sample sludge for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, percent solids, selenium and zinc.

b) Frequency: Sampling must be conducted twice per year: once in April and once in October.

c) Sampling Locations and Sample Type: The permittee must sample as described in Table 4. To the extent that the timing of effluent sampling coincides with sampling required for whole effluent toxicity testing under paragraph insert paragraph number, these results will satisfy the requirements of that paragraph.

Table 4

Pretreatment Monitoring Requirements

Wastestream	Sample Type	Frequency
Influent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Effluent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Sludge	Grab	Once, during the same time period that influent and effluent samples are being taken

1. Influent and effluent samples for cyanide must be collected and analyzed as required in paragraph H.8. of this part.

d) Analytical Methods: For influent and effluent pretreatment sampling, the permittee must use EPA-approved analytical methods that achieve the method detection limits (MDLs) in Table 3, above, unless higher minimum detection limits are approved by EPA. Requests for higher MDLs for pretreatment monitoring must be submitted in writing to the Pretreatment Coordinator at the address in paragraph 9, below.

e) Sludge Sampling: Sludge samples must be taken as the sludge leaves the dewatering device or digesters.

f) Sludge Reporting: Metals concentrations in sludge must be reported in mg/kg, dry weight.

g) Reporting Results: Analytical results for each day's samples must be reported separately. Sample results must be submitted with the pretreatment annual report required in § II.A.9, below.

h) Cyanide sampling: Influent and effluent sampling for cyanide must be conducted as follows. Eight discrete grab samples must be collected over a 24-hour day. Each grab sample must be at least 100 ml. Each sample must be checked for the presence of chlorine and/or sulfides prior to preserving and compositing (refer to Standard Methods, 4500-CN B). If chlorine and/or sulfides are detected, the sample must be treated to remove any trace of these parameters. After testing and treating for the interference compounds, the pH of each sample must be adjusted, using sodium hydroxide, to 12.0 standard units. Each sample can then be composited into a larger container which has been chilled to 4 degrees Celsius, to allow for one analysis for the day.

9. Pretreatment Report

a) The permittee must submit an annual report pursuant to 40 CFR §403.12(i) that describes the permittee's pretreatment program activities over the period October 1 of the previous year to September 30 of the current year. This report must be submitted to the following address no later than November 1 of each year:

Pretreatment Coordinator
U.S. Environmental Protection Agency
Region 10, OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

b) The pretreatment report must be compiled following the Region 10 Annual Report Guidance. At a minimum, the report must include:

(i) An updated non-domestic user inventory, including those facilities that are no longer discharging (with explanation), and new dischargers, appropriately categorized and characterized. Categorical users should have the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.

(ii) Results of wastewater and sludge sampling at the POTW as specified in Part II.A.8 (above).

(iii) Calculations of removal rates for each pollutant for each day of sampling.

(iv) An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality. This should include a comparison between influent loadings and the most

recent relevant maximum allowable headworks loadings calculated for the treatment plant.

(v) Status of program implementation, including:

(a) Any planned modifications to the pretreatment program that have been approved by EPA, including staffing and funding updates.

(b) A description of any interference, upset, or NPDES permit violations experienced at the POTW which were directly or indirectly attributable to non-domestic users, including:

(01) Date & time of the incident

(02) Description of the effect on the POTW's operation

(03) Effects on the POTW's effluent and biosolids quality

(04) Identification of suspected or known sources of the discharge causing the upset

(05) Steps taken to remedy the situation and to prevent recurrence

(vi) Listing of non-domestic users inspected and/or monitored during the report year with dates and an indication compliance status.

(vii) Listing of non-domestic users planned for inspection and/or monitoring for the coming year along with associated frequencies.

(viii) Listing of non-domestic users whose permits have been issued, reissued, or modified during the report year along with current permit expiration dates.

(ix) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards during the report year as required in 40 CFR §403.8(f)(2)(iii).

(x) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.

(xi) Status of enforcement activities including:

(a) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:

(01) Summary of the violation(s).

(02) Enforcement action taken or planned by the permittee.

(03) Present compliance status as of the date of preparation of the pretreatment report.

(b) Listing of those users in significant noncompliance during the report year as defined in 40 §CFR 403.8(f)(2)(viii) and a copy of the newspaper publication of those users' names.

(c) EPA may require more frequent reporting on those users who are determined to be in significant noncompliance.

B. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E of this permit (Proper Operation and Maintenance), within 180 days after the effective date of the final permit, the permittee must provide

written notice to EPA and IDEQ that an operations and maintenance plan for the wastewater treatment facility has been developed and implemented. The plan shall be retained on site and made available on request to EPA and IDEQ.

C. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. Any existing QAPs may be modified for compliance under this section. The QAP must be completed within 90 days after the effective date of the final permit.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.

2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.

3. At a minimum, the QAP must include the following:
   a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.

   b) Map indicating the location of each sampling point.

   c) Qualification and training of personnel.

   d) Name, address and telephone number of the laboratory used by or proposed to be used by the permittee.

4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.

5. Copies of the QAP must be kept on site and made available to EPA and/or IDEQ upon request.

D. Best Management Practices Plan

1. The permittee must maintain and update as needed the Best Management Practices Plan (BMP Plan), which was implemented under the last permit.

2. Within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that the BMP plan has been updated and is being implemented.

3. The BMP Plan must be retained on site and made available to EPA and IDEQ upon request.

4. The BMP Plan must include pollution prevention measures which prevent, or minimize, the potential for the release of nutrients to the Middle Snake River. The BMP must be consistent with the Municipal Industry Management Actions of the Middle Snake River Watershed Management Plan (Table 30). The description of management controls must address, to the extent practicable, the following minimum components:

a) Research, develop and implement a public information and education program;

b) Water conservation;

c) Land application of treated effluent;

d) Land application of biosolids;

e) Storm water pollution prevention; and

f) Operational practices that can be used to reduce nutrient levels in the effluent.

E. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the final permit. At a minimum the plan must include mechanisms to:

   a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;

   b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

   c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;

   d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and

   e) Provide for continued operation during emergencies.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 180 days after the effective date of the final permit. Any existing emergency response and public notification plan may be modified for compliance with this section.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with § III.C (“Monitoring

Procedures"). The permittee must report all additional monitoring in accordance with § III.D ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

1. Paper Copy Submissions

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of § V.E of this permit ("Signatory Requirements"). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement, with copies to IDEQ at the following addresses:

US EPA Region 10
Attn: ICIS Data Entry Team, OCE-133
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301

2. Electronic submissions

If, during the period when this permit is effective, EPA makes electronic reporting available, the permittee may, as an alternative to the requirements in §III.B.1, above, submit reports monthly, electronically by the 10th day of the following month, following guidance provided by EPA The permittee must certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. ("Signatory Requirements"). The permittee must retain the legible originals of these documents and make them available, upon request, to the EPA Region 10 Director, Office of Compliance and Enforcement and to IDEQ.

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by EPA as alternate test procedures under 40 CFR §136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or IDEQ at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
   a) any noncompliance that may endanger health or the environment;
   b) any unanticipated bypass that exceeds any effluent limitation in the permit (See § IV.F., "Bypass of Treatment Facilities");
   c) any upset that exceeds any effluent limitation in the permit (See § IV.G., "Upset Conditions"); or
   d) any violation of a maximum daily or instantaneous maximum effluent limitation for applicable pollutants listed in the permit to be reported within 24 hours (See § I.B).
   e) any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1, above. The written submission must contain:
   a) a description of the noncompliance and its cause;
   b) the period of noncompliance, including exact dates and times;
   c) the estimated time noncompliance is expected to continue if it has not been corrected; and
   d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
   e) if the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.
4. Reports must be submitted to the addresses in Part III.B ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Part III.G.2 of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

I. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and IDEQ in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
3. For the purposes of this section, adequate notice must include information on:
   a) The quality and quantity of effluent to be introduced into the POTW, and
   b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

   US EPA Region 10
   Attn: NPDES Permits Unit Manager
   1200 6th Avenue, Suite 900,
   OWW-130
   Seattle, WA 98101-3140

J. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule in §§ I.C and D of this permit must be submitted no later than each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $32,500 per day for each violation).
2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $32,500). Pursuant to 40 CFR §19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $157,500).
3. Criminal Penalties:
    a) Negligent Violations. The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.
    b) Knowing Violations. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c) Knowing Endangerment. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

d) False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs F.2 and 3, below.

2. Required Notice.

   a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.

   b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G ("Twenty-four Hour Notice of Noncompliance Reporting").

3. Prohibition of bypass.

   a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:

      (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

      (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

      (iii) The permittee submitted notices as required under paragraph 2 of this Part.

4. The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a) An upset occurred and that the permittee can identify the cause(s) of the upset;

   b) The permitted facility was at the time being properly operated;

   c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and

   d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in Part III.I.4. and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §122.62, §122.64, or §124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and IDEQ, within the time specified in the request, any information that EPA or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or IDEQ, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or IDEQ, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and IDEQ must be signed and certified as follows.

1. All permit applications must be signed as follows:
   a) For a corporation: by a responsible corporate officer.
   b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
   c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a) The authorization is made in writing by a person described above;
   b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ.

3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2. must be submitted to the Director of the Office of Compliance and Enforcement and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this Part must make the following certification:
   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for

gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; IDEQ; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance are mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. "Act" means the Clean Water Act.
2. "Administrator" means the Administrator of the EPA, or an authorized representative.
3. "Average monthly effluent limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
4. "Average weekly effluent limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
5. "Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Composite" - see "24-hour composite".
8. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
9. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
10. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
11. "DMR" means discharge monitoring report.
12. "EPA" means the United States Environmental Protection Agency.
13. "Geometric Mean" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
14. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
15. "IC_{25}" means the inhibition concentration, the concentration of the effluent, that would cause a 25 percent reduction in a non-lethal biological measurement, e.g. reproduction or growth)
16. "IDEQ" means the Idaho Department of Environmental Quality.

17. "Interference" is defined in 40 CFR 403.3.

18. "LC_{50}" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.

19. "Maximum daily effluent limitation" means the highest allowable "daily discharge."

20. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

21. "Minimum Level (ML)" means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.

22. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.

23. "Pass Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

24. "POTW" means publicly owned treatment works, i.e. the permittee.

25. "QA/QC" means quality assurance/quality control.

26. "Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

27. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

28. "24-hour composite" sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

29. "TU_a" ("Acute Toxic Unit") is a measure of acute toxicity. TU_a is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC_{50}")

30. "TU_c "(Chronic toxic unit) is a measure of chronic toxicity. TU_c is the reciprocal of the effluent concentration that causes 25 percent inhibition by the end of the chronic exposure period (i.e., 100/"IC_{25}").

31. "USGS" means United State Geological Survey.

32. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond

the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Appendix A

Pollutant Trading In The Upper Snake Rock Subbasin

The permittee is authorized to sell total phosphorus reduction credits pursuant to the requirements in Idaho's Water Pollutant Trading Guidelines 2003; the Middle Snake River Watershed Management Plan, Phase 2 TMDL, Total Phosphorus, December 2002; Upper Snake Rock Watershed Management Plan, Modification, August 2005; and the conditions contained within this permit.

1. How to Sell Credits for Pollutant Trading

   The City of Twin Falls may voluntarily reduce its "base" average monthly phosphorus discharge (in lbs/day) by a particular amount below its effluent limit for a particular calendar month. This reduction must be verified through effluent monitoring using an EPA approved monitoring method. This reduction creates a "credit" that may be transferred to other eligible point sources in this watershed. Section I.B of this permit contains the average monthly phosphorus limit.

2. Timing of the Water Quality Trade

   Credits can only be traded during the calendar month in which the credit was generated.

3. Procedure for Transferring Credit

   To create a valid transfer of a credit, the City of Twin Falls and an authorized buyer (or seller) must complete a Trade Notification Form containing the following minimum information and submit it to the Idaho Clean Water Cooperative by the last day of the month following generation of the credit.

   Name of Seller
   NPDES Permit Number
   Name and telephone number of authorized representative
   Amount of Credit to be sold (in lbs/day)
   Month of Credit(s) OR
   The month for which credits are offered
   Dated signature of the City of Twin Falls' authorized representative.

   Name of Buyer:
   NPDES Permit Number
   Amount of Credit to be purchased (in lbs/day)
   Month of Credit(s) OR
   The month for which credits are requested.
   Dated signature of the Buyer's authorized representative.

4. Reporting Trades by NPDES Permit Holders to EPA and IDEQ

   The permittee must submit to EPA (with copies to IDEQ) a phosphorus-specific discharge monitoring report (DMR) and the Trade Summary Report provided by the Idaho Clean Water Cooperative. The Trade Summary Report must provide (A) the

permittee's actual average monthly phosphorus discharge (lbs/day); (B) the total amount of credits (lbs/day) bought, if any; (C) the total amount of credits (lbs/day) sold, if any; and (D) the permittee's adjusted discharge (lbs/day), which is equal to A - B + C. The Permittee must record both (A) and (D) on the DMR.

All DMRs including the phosphorus-specific DMR must be submitted in accordance with Section III.B of the permit. The phosphorus-specific DMR which reports a trade must specify the actual phosphorus discharge and the "adjusted discharge" and must be submitted by the 10th day of the second month following sampling.

5. Recordkeeping System

No trade is valid unless it is recorded through the Trade Tracking System operated by the Idaho Clean Water Cooperative (or alternatively, IDEQ) and meets all the applicable conditions in this permit. The Idaho Clean Water Cooperative records all trades and generates a monthly summary report of all trades valid for each calendar month. The Trade Notification Form must be submitted to the Cooperative by the last day of the month following the generation of the credit in order for it to be recorded in the Trade Tracking System in time to be reported in the monthly Trade Summary Report and submitted with DMR postmarked by the 10th of the second month following the generation of the credit.

6. Termination of Trading

IDEQ monitoring of the water quality of the receiving streams will be used to determine if localized impacts are occurring as a result of trades. IDEQ will inform the Idaho Clean Water Cooperative and the permittees affected if trading between specific facilities must be restricted because of localized impacts. Such restrictions may reduce the amount of credits available for transfer to prospective buyers within the affected reach.

EPA EXHIBIT # 5

ADMINISTRATIVE RECORD # 39

P.O. Box 1907 321 Second Avenue East Twin Falls, Idaho 83303-1907 Fax: (208) 736-2296

OFFICE OF THE ASSISTANT CITY MANAGER *208-735-7205*

July 14, 2009

Delivery via Email to: wilson.sharon@epa.gov

Sharon Wilson
U.S. Environmental Protection Agency, Region 10
Office of Water and Watersheds OWW -130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Subject: City of Twin Falls Comments on Public Notice Draft NPDES Permit Number ID-0021270

Dear Ms. Wilson:

The City of Twin Falls appreciates the opportunity to comment on the subject draft NPDES permit for the City's wastewater treatment plant (WWTP) discharge to the Snake River. The City also appreciated the opportunity to informally discuss several of the permit conditions with you prior to the public comment draft, and also is appreciative of the 30-day extension of the comment period granted by EPA at the City's request. As you will see in our comments, the extra time has been very useful for the City to enable us to advance our Total Suspended Solids (TSS) trading discussions with our Watershed Advisory Group (WAG), to secure a definitive TSS trading partner (the Twin Falls Canal Company), and to get a cooperative agreement in place with the U.S. Geological Survey (USGS) to implement a new river gaging station near our WWTP.

The City takes its wastewater treatment responsibilities very seriously. The Snake River is a tremendous asset and we are committed to protect and enhance its water quality. Over the last 6 ½ years the City has had a stellar compliance performance record, with no violations in that time period. The City is committed to continue this track record and is currently in the process of completing a facilities plan to ensure this success even as the City grows in future years. We anticipate substantial upgrades to our plant in the short- and long-term that will improve effluent quality while preparing for growth. These include expansion of influent screening, additional primary treatment capacity, new aeration basin with nutrient removal technology, conversion of existing aeration basins to provide nutrient removal, increased secondary clarification capacity, updated UV disinfection, and a new dewatering facility. The City expects this expansion will cost about $27,000,000 to $30,000,000. As with all cities in these difficult economic times, we anticipate having limited financial resources in the short-term and need to commit our citizens' dollars wisely and cost-effectively. For that reason, we have identified several aspects of the

draft permit that we would like to see modified to allow us to achieve our objective while still protecting and advancing Snake River water quality goals.

The attached document presents our detailed technical comments on the draft NPDES permit. The City provides therein detailed comments on the following issues of concern, each of which is also briefly summarized in this cover letter:

- New Limits for Total Suspended Solids
- Use of Incorrect River Design Flows
- New Limits for *E. coli*
- Ammonia Limits
- Residual Chlorine Limits and Associated Conditions
- Pretreatment Issues
- Fact Sheet Corrections Regarding Facility Description

New Limits for Total Suspended Solids

The monthly and weekly limits in the draft permit will require that the City implement costly effluent filtration ($2-6 million). Although these limits in the public comment draft are an improvement over the proposed limits in the pre-draft permit, more recent analyses by the City show that we will not be able to meet the limits in the public comment draft permit either. In addition, we believe that the monthly and weekly limits will inhibit pollutant trading for TSS, which we now are convinced will be the most logical, cost-effective approach, and which will improve Snake River water quality in a much more timely way than can be accomplished without trading. We believe that EPA has the regulatory flexibility to include the waste load allocation (WLA) from the TMDL only as an annual limit in the permit. This has been done elsewhere in the country in recent years and would be a reasonable approach in this case, especially in light of the fact that the City's effluent provides a dilution source to the Snake River relative to the TSS target in the TMDL.

Most importantly, the City has been able to substantially advance the TSS trading opportunity in the last month by: 1) gaining formal WAG approval for TSS trading, and 2) securing a formal trading partner (the Twin Falls Canal Company) that is not only committed in writing but also has the ability to provide sufficient TSS credits to the City via cost-effective projects that the company likely would not be able to afford on its own or in a timely manner. This clearly meets EPA and DEQ trading policy goals. The City understands that both DEQ and EPA have resource constraints and cannot take the lead in facilitating development of TSS trading. Thus, the City is committed to facilitating the process to the point where DEQ and EPA can review and approve the limited in scope trading program that the City would need.

Based on the discussion above, the City makes the following specific requests regarding the new TSS limits and schedule of compliance:

- The TMDL WLA should be incorporated in the NPDES only as an annual limit of 146.4 tons per year.
- Appendix A, Pollutant Trading in the Upper Snake Rock Subbasin, should be modified to include authorization for TSS trading pending approval of the TSS trading program by DEQ and EPA. If that is not possible, then, as a minimum, the permit should provide specific reopener language, in the TSS schedule of compliance or elsewhere, so the permit can be reopened and modified at the time when a TSS trading program is developed and approved by DEQ and EPA.
- The TSS schedule of compliance should be modified to provide an additional year upfront at the beginning of the schedule to allow for development of the TSS trading program. All subsequent compliance dates in the existing schedule in the draft permit should then be moved back one year, with final compliance due on July 1, 2015.

Use of Incorrect River Design Flows

The City has voluntarily moved aggressively to enter into an agreement with USGS to install and operate a river flow gage in the vicinity of the City's WWTP, which became operational on July 10th of this year. Nonetheless, the City believes the draft Fact Sheet and related calculations (e.g., permit triggers for Whole Effluent Toxicity, WET) should be revised now using a more accurate stream design flow. There is ample evidence in EPA-approved TMDLs for the Snake River that river flows dramatically increase between the Kimberly gage site and the WWTP site as a result of inflows from 70 springs and 3 coulees that occur in this 9-mile reach of the river. EPA's use of incorrect stream design flows directly impacts the City during this permit cycle not only because of the WET triggers but also because pretreatment program local limits, which this permit requires the City to reevaluate, are also based in part on river design flow assumptions. The next permit cycle likely also will be affected because there will be less than 10 years of data available from the new USGS gage. This may not be sufficient record for EPA to calculate 10-year low flow statistics.

The City has provided documentation for the more correct value of 1,302 cubic feet per second (cfs) and requests that it be used for this permit. In addition, the USGS gage has already been installed and is now operational; thus, the permit requirement to install this gage can be removed.

New Limits for *E. coli*

The City has two concerns and a request with the new *E. coli* limits:

- Recent voluntary *E. coli* testing by the City demonstrates the need for a schedule of compliance for the *E. coli* limits. The City will be upgrading its Ultraviolet (UV) disinfection system as part of the next facility expansion project. That project is inter-related with what the City will do to comply with the new TSS limits. Consequently, the City requests a schedule of compliance for *E. coli* consistent with that for TSS, that is, July 1, 2015 for final compliance.
- The City believes the maximum daily limit for *E. coli* is not necessary, is not supported by EPA guidance or sound science, and therefore should be removed from the permit.

Ammonia Limits

EPA analyses in the Fact Sheet demonstrate that there is no reasonable potential for ammonia in the WWTP effluent to cause or contribute to ammonia criteria exceedances in the Snake River, even using the incorrectly low stream design values. These limits should therefore be removed from the permit, consistent with previous EPA actions for other permittees when there is no reasonable potential. The City will continue to nitrify its effluent in any case to avoid contributing to WET and to avoid reasonable potential for future permits.

Residual Chlorine Limits and Associated Conditions

The City currently does not use chlorine for disinfection and will not be using it in the future. The existing chlorine system on site is not installed to provide any level of effluent disinfection. Future expansion plans call for the continued use of UV disinfection for the main plant effluent. The City requests, therefore, that the chlorine limits and associated conditions (such as river monitoring for chlorine) be removed from the permit.

Pretreatment Issues

Given the complexity of a complete, technically based local limits evaluation, the City requests that it be given at least 270 days, and preferably a year, to submit the evaluation (compared to the 180 days provided in the draft permit). The City also requests that ammonia be removed from subsections 5. and 8.a of the pretreatment section of the permit because there does not appear to be any basis or need for it to be included.

Fact Sheet Corrections Regarding Facility Description

Two minor fact sheet corrections are included in the attached detailed com ments.

The City of Twin Falls appreciates the opportunity to comment on the draft permit and looks forward to successful resolution of our concerns prior to issuance of the final perm it. We are committed to working with you in whatever way we can to achieve that goal and allow for timely reissuance of the perm it. Please feel free to cont act me at (208) 735-7205.

Sincerely,

City of Twin Falls

Travis Rothweiler, C.M.
Assistant City Manager
City of Twin Falls, Idaho

Detailed Comments from City of Twin Falls on Draft NPDES Permit ID-0021270

July 14, 2009

Introduction

This document presents detailed technical comments from the City of Twin Falls on the public comment draft NPDES permit to be issued to the City (permit number ID-0021270, public noticed on May 15, 2009 with public comments due July 15, 2009). The City provides herein detailed comments on the following issues of concern:

- **New Limits for Total Suspended Solids**
- **Use of Incorrect River Design Flows**
- **New Limits for *E. coli***
- **Ammonia Limits**
- **Residual Chlorine Limits and Associated Conditions**
- **Pretreatment Issues**
- **Fact Sheet Corrections Regarding Facility Description**

Each of these concerns is individually discussed below.

New Total Suspended Solids Limits

Why the New TSS Limit is a Problem for Twin Falls

The Twin Falls Wastewater Treatment Plant (WWTP) currently meets the existing total suspended solids (TSS) limit of 30 mg/L. From 2001 through 2008 the WWTP averaged an effluent TSS level of 17.3 mg/L or 994 lbs/day. These values, however, will exceed the proposed average monthly TSS limit of 980 lbs/day. As a result, the treatment process at the facility will need to be modified to reliability meet the new permit limits. The treatment facility currently employs traditional secondary clarification prior to UV disinfection with no tertiary treatment. Traditional secondary clarification, designed to the current industry standards, can reliably meet an effluent TSS value of approximately 15 mg/L. Given the current design capacity of the WWTP of 8.6 mgd, this would result in an equivalent effluent TSS load of 1,076 lbs/day which exceeds the proposed limit. Optimized secondary clarification systems can get lower than 15 mg/L on a regular basis, but there will be times throughout the year that even the best systems will exceed this limit. During this compliance period the City and CH2M HILL-OMI, Inc. will work to optimize the performance of the existing secondary clarification system, but additional tertiary treatment would still be required in this compliance period to reliably meet the proposed limit. This will require additional capital investment, currently reserved for other needed improvements at the WWTP. Depending on the filtration technology utilized, the conceptual capital cost required is $2,000,000 to $6,000,000. As growth in the

City continues, the associated flow increase at the WWTP will result in an even more stringent limitation as the City holds to the 980 lbs/day. As an example, the next expansion phase at the WWTP will bring the plant capacity to 11 mgd. At this flow, the effluent TSS concentration must be less than 10 mg/L.

The most restrictive of the TSS targets for the Upper Snake Rock TMDL was 52 mg/L. Thus, even at the technology-based standard for secondary treatment (i.e., 30 mg/L) that served as the limit for TSS in the existing permit, the Twin Falls WWTP represents a dilution source for TSS in the Snake River relative to the target. As noted above, the City's WWTP has historically performed better than the existing permit limit. Thus, it seems inappropriate for the City to have to commit a substantial amount of its limited financial resources to install filtration to treat wastewater that is already of substantially higher quality than the instream target. The fact that municipal WWTPs are a dilution source relative to a similar TSS target was considered in the EPA-approved Lower Boise River sediment TMDL, and the wasteload allocations (WLAs) for these WWTPS were based on the secondary treatment standard plus an allowance for future growth. The City of Twin Falls understands that the permit limits must be consistent with the Upper Snake Rock TMDL, but believes EPA has sufficient flexibility to set the limits in a way that is both consistent with the TMDL, allows for TSS trading, and can be met by the City without the need for costly effluent filtration.

The New Limit Should Be Expressed Only as an Annual Limit to Facilitate Trading

The City of Twin Falls objects to the new TSS effluent limits as written. We believe that the limits should stay the same as in the existing permit, with the addition of an annual limit of 146.4 tons per year being added as a limit. Using the 30 mg/L average monthly limit, 45 mg/L average weekly limit, and 146.4 tons average yearly limit, the city feels this meets the water quality-based WLA in the Mid–Snake TMDL. It also allows for pollution trading possibilities with other stakeholders within the watershed. It should also be noted that the 146.4 tons per year is an annual average number and not a maximum load limit. It is also our understanding that other regions allow the annual limits for TMDLs and pollution trading and it is based on the judgment of the permit writer and if it reaches the water quality goals faster and/or more cost-effectively for the impaired water body. Examples include the Long Island Sound nitrogen TMDL and trading program implemented by the State of Connecticut and the phosphorus TMDLs and trading programs for the Neuse and Tar-Pamlico basins in North Carolina.

Pollutant Trading and Compliance Schedule for TSS

The City of Twin Falls is concerned with the TSS compliance schedule as written and requests that it be adjusted by one year to provide sufficient time for implementing a TSS trading program, as described further below. To meet this compliance schedule and the associated effluents limits has the potential to cost the city up to 6 million dollars in plant improvements, with less than a 1 percent improvement in water quality to the Snake River. The Mid-Snake TMDL states that the TSS load for the combined point sources within the watershed is less than 2 percent of the total TSS load for the river.

The City of Twin Falls requests TSS pollution trading compliance schedule. Since Middle Snake River has a TMLD for TSS, this makes it a candidate for pollution trading and pollution trading is one of the preferred methods by EPA to reach the target water

quality limits in water bodies that are impaired. On January 13th 2003 EPA released the Final Water Quality Trading Policy and in August of 2007 EPA published Water Quality Trading Toolkit for Permit Writers. If the City is allowed the work with EPA, the Idaho Department of Environmental Quality (DEQ), and the Mid-Snake WAG to develop a pollution trading program, the city believes that it would be more cost effective for all the stakeholders and there would be greater environmental benefits to the Snake River. Since pollution trading is not new to DEQ or EPA it should not take to much effort to develop a policy.

At the June 16, 2009 Watershed Advisory Group (WAG) meeting the WAG approved TSS trading and will begin writing the guideline for trading (see Appendix A for the WAG letter to DEQ). The City has been working with the Twin Falls Canal Company to develop a partnership for TSS trading. Appendix B includes a recent letter from the canal company to the City that demonstrates their willingness to participate. The City has concluded based on discussions with the canal company that they will be able to generate more than sufficient TSS credits to meet the City's trading needs. Further, it is likely that the company would not have the resources to complete these TSS control projects on their own or in a timely way. Thus, the trading program will clearly meet EPA trading criteria in that water quality improvement will be secured in a more timely and cost-effective manner. The City requests that the permit include language that authorizes TSS trading with the provision that the TSS trading program is approved by both DEQ and EPA. This could be accomplished preferably with relatively minor language changes to the Pollutant Trading Appendix A to the permit, or at a minimum including specific permit reopener language in the schedule of compliance to allow for this relatively minor permit modification at the time when DEQ and EPA have approved the TSS trading program.

If a traditional design-bid-build delivery is planned to incorporate tertiary filtration into the WWTP, the process would have to be initiated by the end of 2009 to meet the proposed compliance schedule. The City's preferred method for meeting this is to utilize a TSS trading program as outlined above. Even though the design and installation of a filtration can be completed within the compliance schedule (i.e., by July 2014), this could present a challenge in coordinating with the associated trading program. The City believes that it should be able to facilitate the development of a trading program within one year of issuance of the permit. This is because the City has already identified a trading partner (Twin Falls Canal Company) that can generate sufficient trading credits for TSS to meet the trading City's needs. A more complicated basin-wide trading program would be more challenging but is not necessary for the City's needs. The City understands that both EPA and DEQ have constrained staff resources and cannot lead the program development. It is our opinion, however, that limited resources and lack of funding is not sufficient reason to impose millions of dollars of expenses on the City of Twin Falls' citizens. To avoid this outcome, the City is committed to providing the resources to develop this more limited trading program needed by the City.

Ultimately, the City understands that DEQ and EPA will have to approve the trading program, and thus some aspects of the trading program process are beyond the City's control. In the event that unforeseen obstacles arise in relation to trading, the City will then need sufficient time to complete the effluent filtration project if that is the only way

compliance can be achieved. As a result, the City requests that the final compliance date be set at July 1, 2015.

Summary of City Requests Regarding New TSS Limits

Based on the discussion above, the City makes the following specific requests regarding the new TSS limits and schedule of compliance:

- **The TMDL WLA should be incorporated in the NPDES only as an annual limit of 146.4 tons per year.**
- **Appendix A, Pollutant Trading in the Upper Snake Rock Subbasin, should be modified to include authorization for TSS trading pending approval of the TSS trading program by DEQ and EPA. If that is not possible, then, as a minimum, the permit should provide specific reopener language, in the TSS schedule of compliance or elsewhere, so the permit can be reopened and modified at the time when a TSS trading program is developed and approved by DEQ and EPA.**
- **The TSS schedule of compliance should be modified to provide an additional year upfront at the beginning of the schedule to allow for development of the TSS trading program. All subsequent compliance dates in the existing schedule in the draft permit should then be moved back one year, with final compliance due on July 1, 2015.**

Use of Incorrect River Design Flows

EPA used design river flow statistics derived from the flow record at the USGS gage near Kimberly. This gage provides a poor record of flows at the Twin Falls WWTP site because of substantial inflow of water from 70 springs and 3 coulees in the intervening 9 miles of river. The City believes that a single stream design flow of 1,302 cfs is the appropriate and defensible stream flow value to use for this permit cycle (see the more detailed rationale and recommendation in Appendix C).

The City understands that it is EPA's preference that the City establish a flow gage near its WWTP and develop a flow record specific to the site. From EPA's perspective, this flow record could then be used for future permits. In fact, based on earlier discussions with EPA, the City has already contracted with USGS to install and operate the gage (see Appendix D for a copy of the cooperative agreement recently signed with USGS). The gaging station has already been installed and became operational on July 10, 2009. Thus, the City has proactively moved to put this gage in place even before it would be required by the permit. As a result, we feel the compliance schedule is not necessary and should be removed from the permit.

Nonetheless, the City remains concerned with using the Kimberly gage for river design flows for this permit cycle for two main reasons:

- **First, the incorrect Kimberly-based design flows directly affect City actions during the coming permit cycle.**
  - **The Whole Effluent Toxicity (WET) triggers are based on the assumed dilution values of the effluent which in turn are based on these river design flows. The WET triggers in the draft permit are substantially more restrictive than the existing permit. As indicated in the Fact Sheet, the City has had occasional WET results historically that would have been greater than the WET triggers in the draft permit.**
  - **In addition, the local limits evaluation that the permit requires in the pretreatment section includes an element of the evaluation that is based on avoiding water quality impacts. This evaluation must make assumptions about the amount of dilution that occurs in the river. If the City does not use the same dilution values for its local limits evaluation that EPA used to develop the permit, then the City risks EPA 's disapproval of the local limits. On the other hand, if the City uses EPA's dilution values then it is risking imposing limits on its industrial sources that the City knows will be more stringent than necessary.**
  - **Therefore, it is necessary to use correct river dilution values for this permit cycle.**
- **Second, the assumed design flows for this permit will likely also affect the next permit cycle (assuming it would be reissued in less than 10 years).**
  - **Less than 10 years of river flow data may not be sufficient for EPA to calculate defensible 10-year low flow statistics. Thus, the concerns expressed in the bullet above would also be relevant to the next permit. In addition, this draft permit requires much more extensive river data be collected by the City for a long list of toxic pollutants. These data will be used in the next permit cycle to determine if water quality-based effluent limits (WQBELs) will be needed for any of these pollutants. These WQBEL calculations will again use river design flows for dilution purposes.**
  - **Although it may be possible to develop a statistical correlation between the new gage and the Kimberly gage, it is not certain that EPA would accept correlated data in lieu of 10 years of data at the new gage.**

Thus, the City of Twin Falls requests that EPA use 1,302 cfs for stream design flows for this permit cycle. This will then provide the basis for the next permit cycle in the event that EPA does not accept less than 10 years of data at the new gage or correlated data. Alternatively, the City requests a letter from EPA and DEQ stating that after the USGS has correlated the City's gaging station with the Kimberly gaging station that they will accept the flow data for the next permit cycle.

New Limits for *E. coli*

The City has two concerns with the new *E. coli* limits:

- **Recent voluntary *E. coli* testing by the City demonstrates the need for a schedule of compliance for the *E. coli* limits.**

- **The City believes the maximum daily limit for *E. coli* is not necessary, is not supported by EPA guidance or sound science, and should be removed from the permit.**

Need for Schedule of Compliance

The existing NPDES permit does not contain limits for *E. coli*, nor does it require monitoring for *E. coli*. There are fecal coliform limits included in the existing NPDES permit. There has not been a single violation of these fecal coliform limits in the last 6 ½ years. The draft NPDES permit changes the bacteria parameter from fecal coliform to *E. coli* bacteria on a average monthly and maximum daily basis.

Even though not required, the City has tested for effluent *E. coli* as part of a potential water reuse program, with data collection beginning in 2008 with results available through June 2009. Any results from such testing have no implications related to compliance with the existing permit, but do provide insights into potential compliance issues with the reissuance permit that will contain *E. coli* monitoring and limits. Table 1 details the results of this voluntary testing for the last calendar year (August 2008 through June 2009).

TABLE 1
Twin Falls WWTP: 2008 - 2009 *E.Coli* testing (Quanti-tray methodology)

	Monthly Geomean (E. coli/100 mL)	Maximum Daily (E. coli/100 mL)
August, 2008	21.0	547.5*
September, 2008	59.7	240
October, 2008	19.03	148.3
November, 2008	12.4	42.8
December, 2008	36.7	686.7*
January, 2009	12.0	161.6
February, 2009	14.6	290.9
March, 2009	20.5	224.7
April, 2009	8.5	139.1
May, 2009	8.1	26.2
June, 2009	9.0	31.3
Proposed Limit	*126*	*406*

Notes: '*' indicates value greater than proposed *E. coli* limit

As noted in the table, there two months with maximum results greater than the Daily Maximum proposed limit (note that the existing fecal coliform limits where not exceeded during these two months). The WWTP currently utilizes a Ultraviolet (UV) disinfection system that is scheduled for replacement. The current plan is to replace this system during the next expansion project at the WWTP. A compliance schedule for meeting the proposed *E. coli* limits is therefore needed and requested. As schedule similar to that

presented for TSS compliance would be adequate. The City would be able to modify and update their disinfection system to meet the proposed limits by July 1, 2015.

Maximum Daily Limit

The City believes that the single sample maximum criterion of 406 *E. coli* per 100 mL should not be included as a maximum daily limit in the permit. This single sample maximum criterion has questionable merit as an enforceable NPDES permit limit. The reasons for this are set forth in EPA Headquarters guidance as summarized in more detail in Appendix E. The guidance makes the following recommendation:

> ***"EPA recommends, but would not require, that the states and authorized tribes use only the geometric mean component for NPDES water quality-based effluent limits."***

If the maximum daily limit is removed from the permit, then the need for the schedule of compliance for *E. coli* limits is diminished, although the City would still prefer a schedule to get the new UV system installed and operational as part of the next facility expansion project.

Ammonia Limits

The ammonia limits in the draft permit should be removed because the Fact Sheet clearly documents that there no reasonable potential for ammonia in the City's effluent to exceed ammonia criteria in the Snake River. Removing these limits would not violate antibacksliding requirements under the Clean Water Act, as documented via other precedents in Idaho where EPA has removed WQBELs from permits when it has been demonstrated that there is no need for the limits (i.e., no reasonable potential). Examples include removal of ammonia WQBELs from both NPDES permits for the City of Boise because of no reasonable potential, and removal of chlorine limits from a number of permits for facilities that switched from effluent chlorination to ultraviolet disinfection, again including both NPDES permits for the City of Boise.

The City will continue providing complete nitrification at the WWTP to meet the current water quality requirements, including the WET requirements. This will assure that there will continue to be no reasonable potential for the ammonia in the City's effluent to exceed ammonia criteria in the Snake River. All future design criteria for WWTP expansion includes complete nitrification within the system.

Residual Chlorine Limits and Related Conditions

The City currently does not use chlorine for disinfection and will not be using it in the future. The existing chlorine system on site is not installed to provide any level of effluent disinfection. Future expansion plans call for the continued use of UV disinfection for the main plant effluent. The City requests, therefore, that the chlorine limits and associated conditions (such as river monitoring for chlorine) be removed from the permit.

Pretreatment Issues

Subsection 5. of the pretreatment section of the draft permit requires that the City submit a local limits evaluation to EPA within 180 days from the effective date of the permit.

Given the complexity of a complete, technically based local limits evaluation, the City requests that it be given at least 270 days, and preferably a year, to submit the evaluation. The City is aware of other Idaho permits where a year was provided for the submittal of the evaluation, and more recently the City has learned that EPA Regions 6 and 8 provide 270 days for the evaluation (Region 8 language provided below):

> **"The Permittee shall establish and enforce specific local limits to implement the provisions of 40 CFR Section 403.5(a) and (b), as required by 40 CFR Section 403.5(c). The Permittee shall continue to develop these limits as necessary and effectively enforce such limits.**
>
> **In accordance with EPA policy and with the requirements of 40 CFR sections 403.8(f)(4) and 403.5(c), the Permittee shall determine if technically based local limits are necessary to implement the general and specific prohibitions of 40 CFR sections 403.5(a) and (b).**
>
> **This evaluation should be conducted in accordance with the latest revision of the AEPA Region VIII Strategy for Developing Technically Based Local Limits@, and after review of the "Local Limits Development Guidance" July 2004. Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in approvable form based upon the findings of the technical evaluation within two-hundred and seventy (270) days from the effective date of this permit."**

Subsections 5. and 8.a) require the City to evaluate and sample for ammonia "if the permittee accepts ammonia from industrial sources." This is a new pollutant for pretreatment considerations, and the City requests: 1) explanation from EPA on why ammonia needs to be addressed (i.e., there is no reasonable potential for ammonia in relation to WQBELs, as discussed above, and thus no special concern for ammonia for the Twin Falls WWTP), and 2) further clarification of the phrase "if the permittee accepts ammonia from industrial sources." Most discharges from industries include domestic waste, and all domestic waste contains ammonia. Is EPA primarily concerned about industries that manufacture ammonia products or use large quantities of ammonia in their industrial processes? If so, there are no such industrial facilities discharging to the City's wastewater system. The City, therefore, requests that ammonia be removed from subsections 5. and 8.a) of the pretreatment section of the permit.

Fact Sheet Corrections Regarding Facility Description

Two corrections to the Fact Sheet, Section II.A., are needed:

- **The 10.92 mgd value in the second paragraph of this subsection should be described as the peak *day* design flow.**
- **The following sentence on page 6 of the fact sheet should be deleted: "Chlorine contact chambers would be used only in the event that the whole UV system is inoperable for an extended period of time." Although the WWTP does still have the old chlorine contact chambers on site, they are not and will not be used; chlorine feed and distribution equipment is no longer present.**

Appendix A

June 19, 2009 Letter from Middle Snake River WAG to DEQ Regarding TSS Trading

MIDDLE SNAKE RIVER WATERSHED ADVISORY GROUP

1363 Fillmore St
Twin Falls ID 83301
Phone: (208) 736-2190
Fax: (208) 736-2194

June 19, 2009

To: Mr. Bill Allred
Regional Director
Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301

From: The Middle Snake River Watershed Advisory Group
Mike J Trabert P.E., Chairman
P.O. Box 1907
Twin Falls, Id 83303-1907

REF: Approval to Allow Total Suspended Solids (TSS) Pollution Trading within the Mid-Snake Watershed and to Develop a Watershed-Based Trading Policy for the Mid-Snake Watershed.

Dear: Mr. Allred

The Middle Snake Watershed Advisory Group (Mid-Snake WAG) is considering the creation of a technical advisory subcommittee (TAC) to investigate the current status of pollutant trading in Idaho and develop pollutant trading recommendations for TMDL pollutants within the Mid-Snake region. The initial focus of the subcommittee will be on Total Suspended Solids but it will eventually expand its examination to other TMDL pollutants.

IDAPA 58.01.02.054.06, entitled *Pollutant Trading* provides: *Development of TMDLs or equivalent processes or interim changes under these rules may include pollutant trading with the goal of restoring water quality limited water bodies to compliance with water quality standards.* We understand that the only pollutant presently contemplated for trading within the Mid-Snake Watershed is total phosphorus, but the Mid-Snake WAG believes the development of a water quality based trading program that would allow trading of all pollutants for which a TMDL has been developed, including temperature, phosphorus and total suspended solids, would be helpful in achieving water quality goals. We have reviewed the material on pollutant trading available on IDEQ's website, including the November 2003 draft *Pollutant Trading Guidance*, and are somewhat confused as to the status of the regulatory structure in Idaho with regard to pollutant trading. We understand that pollutant trading is voluntary and dependent on private contracts between pollutant buyers and sellers, but the state's role and involvement remains unclear from the draft guidance documents available. We would therefore appreciate your assistance and advice with regard to the (TAC). We could like to form the TAC as soon as possible.

The Mid-Snake WAG considers pollutant trading to be an important management tool for achieving water quality goals in the middle Snake and appreciates your attention to this important issue. Please let me know how you would like to proceed.

Sincerely,

Mike J. Trabert P.E.
Mid-Snake WAG Chairman

Appendix B

July 10, 2009 Letter from Twin Falls Canal Company to City of Twin Falls Regarding TSS Trading

TWIN FALLS CANAL COMPANY

357 6TH AVE WEST
POST OFFICE BOX 326
TWIN FALLS, IDAHO 83303-0326

July 10, 2009

Mike Trabert
Staff Engineer
City of Twin Falls

RE: Pollution trading partnership

Dear Mike,

Twin Falls Canal Company has been actively engaged in Total Maximum Daily Load (TMDL) implementation to meet Clean Water Act mandates for the Mid-Snake River for many years. We fully support the practice of Pollution Trading as an essential tool for the various industries, including agriculture, in meeting their load targets. More particularly, we are very interested in entering into a partnership with the City of Twin Falls to help both of us reach our Total Suspended Solids (TDS) load requirements. We feel that a pollution trading agreement between the canal company and the city will be more efficient, more economical for the taxpayer, and ultimately will remove more pollutants from the Snake River.

Again, we request that Pollution Trading Agreements be approved and implemented in the Mid-Snake TMDL. Please call me at 208-733-6731 if you have questions, or need more information from Twin Falls Canal Company.

Sincerely,

Brian Olmstead

Brian Olmstead
General Manager

Appendix C

Design River Flow Rationale and Recommendation

The City of Twin Falls has reviewed the facts and findings in the Fact Sheet of NDPES permit No. ID-002127-0 and would like to propose a change in its conclusions to the flow being considered as 7Q10 near the discharge outfall based on the USGS Kimberly Gage Station (# 13090000). The City of Twin Falls requests that the statistical flow values be modified to 1302 cfs for the "reasonable potential to exceed" criteria for toxics like ammonia, arsenic, cyanide, copper, etc (in Appendix C of the draft Fact Sheet), per Idaho water quality standards, which are:

- **1Q10 (one-day, 10-yr, hydrologically based low flow) - used for acute aquatic life criteria other than ammonia.**
- **7Q10 (seven-day, 10-yr, hydrologically based low flow) - used for chronic aquatic life criteria other than ammonia.**
- **1B3 (one-day, 3-yr, biologically based low flow) - used for acute aquatic life criteria for ammonia.**
- **30Q3 (thirty-day, 3-yr, biologically based low flow) - used for chronic aquatic life criteria for ammonia.**

The 1302 cfs reflects the absolute low flow condition of the Snake River at the City of Twin Falls wastewater treatment discharge point (outfall) under a low flow based scenario as described and defined in the Mid-Snake TMDL (1997) and the Upper Snake Rock TMDL (l999).

As used by EPA in its RPE calculations, the Snake River flow characteristics are based on the USGS gauging station near Kimberly, ID (Station #13090000) (at approximately river mile 617.5). The City of Twin Falls wastewater treatment plant discharge point (at approximately river mile 608.5), is 9 miles downstream from the Kimberly Gage with approximately 70 spring flows and 3 coulees entering and discharging into this reach of the Snake River.

The City of Twin Falls would propose that 7Q10 flow be replaced with the 1990-1991 baseline low flow referenced in the Mid-Snake TMDL (1997) and also be used in the Upper Snake Rock TMDL (Refer to Appendix D of the 1999 Mid Snake TMDL).

It should also be stated that the low flow conditions that were developed by EPA for the RBM10 Water Quality Model (as developed by John Yearsly at Region 10) were used to determine the baseline pollutant loads for the Mid Snake River. Referring to the Mid-Snake TMDL (1997), Table VII, entitled"1990-1991 TSS LOADING ANALYSIS PER SEGMENT REACH AS BASELINE", identifies the low flow at Milner Dam (river mile 638.5) as 425 cfs. Milner Dam is the primary control point (or choke point in the Middle Snake River). Since this is the major diversion area for the Twin Falls and North Side Canal Companies, as well as several other smaller canal companies. Under low flow and drought conditions, their legal water right determines the low flow condition for the Snake River below Milner Dam. A summary of the accumulation of the flows entering

the river between Milner Dam and the City of Twin Falls wastewater treatment plant in Table 1 as follows:

Table 1. Summary of flow data from table VII of the 1999 Mid Snake TMDL

River Mile	Reference return flow name	Flow (cfs)
638.53	Milner Dam	425
638.53-613.09	Known Spring, Surface Returns, Point Sources to Pillar Falls	1302
613.09-608.5	Pillar Falls to City of Twin Falls POTW	1734

It is the opinion of City of Twin Falls, the Mid Snake Watershed Advisory Group (or Mid-Snake WAG) and IDEQ that the Spring and Surface return flows are constant for the basis of low flow determination during the normal irrigation season. In the case of the City of Twin Falls wastewater treatment plant there are two EPA approved TMDL documents that describe the low flow baseline conditions. These documents were written by the Idaho Department of Environmental Quality and approved by EPA. It is our opinion that the baseline low flow be 1734 cfs should be reflected in the permit. It is also our opinion that the a reduction of a 425 cfs baseline to 0 cfs could occur at Milner Dam on a very rare occasion (such as very low drought-based conditions). Therefore we would agree that 1302 cfs could be used that to meet all of the water quality-based low flow criteria.

Appendix D

Agreement between City of Twin Falls and USGS for Snake River Gaging Station

C-4011

United States Department of the Interior

U.S. GEOLOGICAL SURVEY
IDAHO WATER SCIENCE CENTER
230 Collins Road
Boise, Idaho 83702-4520

June 4, 2009

Jacqueline Fields, City Engineer
City of Twin Falls
P.O. Box 1907
Twin Falls, Idaho 83303

Dear Ms. Fields:

We appreciate your support for the installation and operation of the new gaging station on the Snake River near Twin Falls (Station 13090500). The cost for the purchase and installation of the gaging station with data collection platform (DCP) will be $15,359. The cost of the operation and maintenance (O&M) of the station for the remainder of fiscal year (FY) 2009 ending September 30, 2009 will be $4,020 for a total cost of $19,379. These costs will be shared equally by the City of Twin Falls and U.S. Geological Survey as outlined in the enclosed Joint Funding Agreement (JFA). You will receive a new JFA for fiscal year (FY) 2010 which begins October 1, 2009.

I have enclosed two copies of a Joint Funding Agreement for the operation and maintenance of this station. If this agreement meets with your approval, please sign both of the originals and return one to us. The other original is for your records. Work performed with funds from this agreement will be conducted on a fixed-price basis. The results of all work under this agreement will be available for publication by the U.S. Geological Survey.

If you have any questions regarding the operation of the gaging station or the data please call our Twin Falls Field Office, (208) 734-9168. Questions related to the financial arrangements should be directed to Sally Thompson at (208) 387-1336.

Sincerely,

Stephen W. Lipscomb
Director, IWSC

Enclosure

Copy to: Robert Erickson, USGS, Twin Falls
Tom Brennan, USGS, Boise
Greg Clark, USGS, Boise
Sally Thompson, USGS, Boise

C-4011

ORIGINAL

Form 9-1366
(Oct. 2005)

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement

Customer #:	ID026
Agreement #:	09W4ID01500
Project #:	9697-00100,00970, 001GS
TIN #:	82-6000270
Fixed Cost Agreement	☑ Yes ☐ No

FOR
WATER RESOURCES INVESTIGATIONS

THIS AGREEMENT is entered into as of the 04 day of JUNE, 2009, by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the CITY OF TWIN FALLS, party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation A PROGRAM FOR A NEW GAGING STATION ON SNAKE RIVER NEAR TWIN FALLS, herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50; and 43 USC 50b.
2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) includes In-Kind Services in the amount of $0.00.

by the party of the first part during the period

(a) $9,690.00 JULY 1, 2009 **to** SEPTEMBER 30, 2009

by the party of the second part during the period

(b) $9,690.00 JULY 1, 2009 **to** SEPTEMBER 30, 2009

(c) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.

(d) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.
7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

ORIGINAL

Form 9-1366 continued	U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement	Customer #:	ID026
		Agreement #:	09W4ID01500
		Project #:	9697-00100,00970, 001GS
		TIN #:	82-6000270

8. The maps, records, or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records, or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program and, if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at costs, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records, or reports published by either party shall contain a statement of the cooperative relations between the parties.
9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered **ANNUALLY**. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983).

U.S. Geological Survey
United States
Department of the Interior

USGS Point of Contact

Name: GREG CLARK
Address: U.S. GEOLOGICAL SURVEY
230 COLLINS ROAD
BOISE, IDAHO 83702-4520
Telephone: 208-387-1324
Email: GMCLARK@USGS.GOV

Signatures

By _____ Date 6/4/09
Name: STEPHEN W. LIPSCOMB
Title: DIRECTOR, IWSC

By _____ Date _____
Name:
Title:

By _____ Date _____
Name:
Title:

CITY OF TWIN FALLS

Customer Point of Contact

Name: JACQUELINE FIELDS
Address: CITY OF TWIN FALLS
P.O. BOX 1907
TWIN FALLS, IDAHO 83303
Telephone: 208-735-7248
Email: JFIELDS@TFID.ORG

Signatures

By _____ Date 6-12-09
Name: JACQUELINE FIELDS
Title: CITY ENGINEER

By _____ Date _____
Name:
Title:

By _____ Date _____
Name:
Title:

C-4011

ROUTING AND FILE KEY SHEET

	RES.	ORDINANCE	LEASE	CONTRACT	DEED	OTHER
DATE PASSED/FAILED				6-12-09		
NUMBER				C-4011		
MAYOR SIGNED						
CITY MANAGER SIGNED						
OTHERS SIGNED				City Engineer		
CITY CLERK SIGNED						
RECORDED? YES/NO						
PUBLISHED DATE						
KIND OF DEED						
EXPIRATION DATE						
CITY ATTORNEY APPROVE						

COPIES TO: _____

DEPT'S INVOLVED? COUNCIL CITY MANAGER FINANCE POLICE FIRE
ENGINEERING COM DEV PLAN & ZONING INSPECTION
WATER SANITATION WASTE WATER STREETS PARKS
RECREATION GOLF AIRPORT SHOP PERSONNEL
ECON DEV LIBRARY LID BID CITY ATTORNEY

OTHER _____

KEYWORDS TO USE TO FILE DOCUMENT: Joint funding agcmt for Snake River Gaging Station

STARTING DATE OF CONTRACT: ____

ENDING DATE OF CONTRACT: _____

Appendix E

Rationale for Exclusion of the Single Sample Maximum *E. coli* Criterion as a Regulatory Target or Permit Limit

EPA Headquarters guidance on the application of its bacteria criteria can be found in several documents, including:

- ***Ambient Water Quality Criteria for Bacteria – 1986*, EPA 440/5-84-002, January 1986 (Criteria Document)**
- ***Implementation Guidance for Ambient Water Quality Criteria for Bacteria, Public Review Draft.* May 2002 (Implementation Guidance)**
- ***Protocol for Developing Pathogen TMDLs.* EPA 841-R-00-002, January 2001 (Pathogen TMDL Guidance)**

The derivation of EPA's criteria, which serve as the basis for IDEQ's criteria, were based on data collected at swimming beaches. Consistent with recommendations in the Criteria Document, the Implementation Guidance reads:

> ***For the purpose of analysis, the data collected at each of these sites were grouped into one paired data point consisting of an averaged illness rate and a geometric mean of the observed water quality. These data points were plotted to determine the relationships between illness rates and average water quality (expressed as a geometric mean). The resulting linear regression equations were used to calculate recommended geometric mean values at specific levels of protection (for example, 8 illnesses per thousand). Using a generalized standard deviation of the data collected to develop the relationships and assuming a log normal distribution, various percentiles of the upper ranges of these distributions were calculated and presented as single sample maximums.***
>
> ***EPA recognizes that the single sample maximum values in the 1986 criteria document are described as "upper confidence levels," however, the statistical equations used to calculate these values were those used to calculate percentile values. While the resultant maximum values would more appropriately be called 75th percentile values, 82nd percentile values, etc., this document will continue to use the historical term "confidence levels" to describe these values to avoid confusion.***
>
> ***As displayed in Appendix D tables, confidence levels were chosen ranging from 75% to 95% and assigned subjective, qualitative descriptions. For example, the most conservative single sample maximum value was assigned to beach areas because a more conservative approach should be taken in the protection of heavily-used recreational waterbodies. Conceivably, less intensively used areas may have the less restrictive single sample limits applied to them. EPA recommends the use of the single sample maximum value associated with a 75th percentile for beach areas as a more conservative approach to assuring that the associated***

geometric mean is not exceeded in those areas regularly used for primary contact activities.

The Pathogen TMDL Guidance also mirrors this information, as given in its Table 4-1:

For primary and secondary recreation uses for the E.coli criterion: No sample should exceed a one-sided confidence limit (CL) calculated using the following as guidance: designated bathing beach – 75%; moderate use for bathing – 82% CL; light use for bathing – 90% CL; infrequent use for bathing – 95% CL; based on site-specific log standard deviation, or if site data are insufficient to establish a log standard deviation, then using 0.4 as the log standard deviation.

For waterbodies other than heavily used beach areas, the Implementation Guidance also recommends that the illness rate should be 14 per 1,000 swimmers for fresh water criteria. Note that the criteria of 126 and 406 are based on an illness rate of 8 per 1,000. Using a CL of 95 percent, the single sample maximum value recommended by EPA is 2,507 *E. coli* per 100 mL for the illness risk level 14 per 1,000 swimmers and the default standard deviation. Thus, the range of the single sample maximum criteria can be very broad depending on type of use, risk level assigned, and data variability.

Most importantly, the Implementation Guidance also makes the following recommendation in Section 5.2.2 (page 46):

EPA recommends, but would not require, that the states and authorized tribes use only the geometric mean component for NPDES water quality-based effluent limits.

Key messages from the EPA guidance above are as follows:

- **The single sample maximum is a statistical artifact associated with protecting the geomean criterion and is based on the national swimming beach data**
- **EPA interprets the single sample maximum in relation to the nature of recreational use**
- **The 406 criterion value assumes the applicable recreational activity is a heavily-used swimming beach statistical characteristics represented by the national beach data set**
- **Site-specific data, uses, and risk levels could be used to determine the single sample maximum more appropriate for the Snake River, if necessary**
- **Permitting authorities are advised by EPA headquarters to use only the geometric mean component for NPDES water quality-based effluent limits.**

EPA EXHIBIT # 6

ADMINISTRATIVE RECORD # 36

wildidaho.org

Conservation League

PO Box 844, Boise, ID 83701 208.345.6933 Fax 208.344.0344

Sharon Wilson
EPA Region 10, OWW-1330
1200 Sixth Ave. Suite 900
Seattle, WA. 98101

6/16/09

RE: Idaho Conservation League comments on draft NPDES permit for Twin Falls wastewater treatment plant (ID002170)

Dear Ms. Wilson,

Thank you for the opportunity to comment on the draft NPDES permit for Twin Falls' wastewater treatment plant (ID002170). The Idaho Conservation League has a long history of involvement with water quality issues and NPDES permitting in Idaho. As Idaho's largest state-based conservation organization we represent over 9,800 members, many of whom have a deep personal interest in protecting Idaho's water quality and the health of all Idahoan's from the harmful effects of effluent discharge.

A number of our members live downstream from Twin Falls and are very concerned about the general health of the Snake River and the low quality of water in this area specifically. Our members rely on the Snake River for clean water for drinking, industry, recreation and irrigation. Failure to ensure that the Twin Falls wastewater facility is adequately regulated may result in ongoing and future discharges that jeopardize our members' interests in the Snake River.

Our specific comments in the draft NPDES permit for the Twin Falls wastewater treatment facility are attached.

In summary, we do not support the use of pollutant trading in this segment of the Snake River at this time. Our primary objection to inclusion of pollutant trading language in the Twin Falls NPDES permit stems from the fact that EPA is predicating this trading on old, draft Idaho guidance and pollutant trading ratios that do not ensure environmental benefits beyond those that can be achieved via the enforcement of existing NPDES permits.

Thank you for your consideration of our comments on this important matter. Please do not hesitate to contact me at 208-345-6933 ext 24 or at jahyes@wildidaho.org if you have any questions about comments.

Sincerely,

Justin Hayes
Program Director

cc. Jim Werntz, Boise EPA

Idaho lacks sufficient guidance and rules to allow pollutant trading

The use of pollutant trading to meet water quality objectives has the potential of providing an economically efficient means of reducing pollutant loading. If pollutant trading is to be a more frequently used regulatory/permit tool it will be critical to ensure that the practice is sufficiently regulated. The draft Twin Falls NPDES permit proposes to authorize pollutant trading. Upon review of the draft permit we are concerned that there is not currently sufficient regulation and formal federal and state guidance to assure that the pollutant trading being authorized is done in a manner that is protective of Idaho water quality and carried out in a manner that is consistent with state and federal law.

If pollutant trading is to take place, it will be critically important that trading be done in a transparent and documented manner and that there be clearly articulated Idaho guidance directing these actions and that such actions be supported by clear Idaho rules providing such authorities in Idaho to ensure compliance with State Clean Water Act obligations and authorities.

As such, it is important that Idaho's rules adequately address this issue. Unfortunately, the State of Idaho has failed to sufficiently craft DEQ rules to authorize and govern pollutant trading. Indeed, DEQ's formal rules on pollutant trading fail to offer any substantive direction on how pollutant trading will be carried out. Indeed, DEQ's rules merely state that pollutant trading may be utilized with the goal of restoring water quality. See below:

> IDAPA 58.01.02 .054
>
> 06. Pollutant Trading. Development of TMDLs or equivalent processes or interim changes under these rules may include pollutant trading with the goal of restoring water quality limited water bodies to compliance with water quality standards.

This inadequate treatment in the IDAPA Rules fails to provide the authorities and direction needed for issuance of consistent and Clean Water Act compliant utilization of pollutant trading.

Absence rule language to direct this issue, the Twin Falls permit proposes to utilize pollutant trading *guidance* developed by Idaho in 2003. However, this state guidance was never finalized. Indeed, the 2003 guidance has languished in draft form for over five years. We believe that there are substantive and procedural deficiencies in this draft guidance and that it is not appropriate for EPA to rely on this half finished work product to provide the regulator framework for pollutant trading in Idaho.

There are many questions raised by pollutant trading that EPA and DEQ are not in a position to address absent final guidance and/or more illustrative rules. For instance, how will Idaho ensure that the facility purchasing credits does not violate water quality standards in the receiving body at the point of discharge? Will Idaho (and EPA) issue ad hoc mixing zones to address this concern? How can Idaho issue a 401 certification of the Twin Falls NPDES permit when the permit, via a trade, result in violations of water quality standards downstream at the facility that purchases and utilizes the credit?

With such scant formal State of Idaho direction as to how to proceed, it is frankly inappropriate for EPA to include pollutant trading in Twin Falls' NPDES permit. We ask that EPA remove this provision from the draft NPDES permit at this time. Should the State of Idaho decide that it wants to more formally provide rules and guidance on pollutant trading, EPA and Twin Falls can revisit this matter in the next permitting cycle.

Trading between point sources and non-point sources

A particular concern of ours with regard to pollutant trading is the potential for trades to take place that involve non-point sources. Non-point sources, as opposed to point sources, lack NPDES permits. As such, individual non-point sources do not have effluent limits and required monitoring and reporting requirements. Absence the regulatory framework built around a source having an NPDES permit, it is not possible to ensure that pollutant trading transactions occur, have the intended benefits and are enforceable. Transactions that involve non-point sources will not have the transparency and accountability necessary to comply with Clean Water Act requirements.

The EPA fact sheet that accompanies the draft Twin Falls permit states "This proposed permit authorizes the City of Twin Falls to sell phosphorus credits to other point sources in the Upper Snake Rock Subbasin consistent with IDEQ's November 2003 draft Pollutant Trading Guidance."

This gives the impression that trades authorized by this permit will only be between other point sources. However, such a limitation is not in the draft NPDES permit. Nor is there such a limitation in the November 2003 draft Pollutant Trading Guidance. Indeed, the draft guidance provides for trading between point and non-point sources. Thus, absent clear statements limiting trading to just point sources, trading between point and non-point sources is inferred and permitted.

Value or Ratio of pollution credits unacceptable

EPA is relying on Idaho's November 2003 *draft* Pollutant Trading Guidance to determine the amount of the credit to be gained from a pollutant reduction and the required ratio for a trade. Reliance on a five-year-old draft document to guide this very important decision is not acceptable. Our organization has not had the opportunity to comment on this matter in light of recent developments (such as current water quality status, trends and TMDL implementation. Indeed, since the 2003 draft guidance was crafted, nearly all of the aquiculture facilities that discharge to this segment of the Snake River have received new NPDES permits. This is a very significant modification of circumstances not captured in the draft guidance. This change in circumstances argues convincingly that EPA must re-visit the issue of credits and ratios and cannot rely on the old draft documents provided by the State of Idaho.

If EPA wishes to embrace a pollutant trading scheme in this permit (and others), EPA must develop reduction credits and trading ratios that reflect current water quality needs and permit developments.

Trading ratios of 1:1 fail to comply with the intent and language of the EPA *final* Water Quality Trading Policy (Jan. 13, 2003). EPA's policy notes:

> The United States Environmental Protection Agency (EPA) believes that market-based approaches such as water quality trading provide greater flexibility and have potential to **achieve water quality and environmental benefits greater than would otherwise be achieved under more traditional regulatory approaches. [emphasis added]** page 1.

And,

> II. Trading Objectives
>
> EPA supports implementation of water quality trading by states, interstate agencies and tribes where trading:
>
> . . .
>
> **F. Achieves greater environmental benefits than those under existing regulatory programs. [emphasis added]** page 3.

EPA's current NPDES permits for point source facilities in this area contain effluent limits for phosphorus. Allowing for a trading ratio of 1:1 does nothing to "achieve greater environmental benefits then those under existing regulatory programs."

If EPA wishes to utilize pollutant trading in this area, EPA must develop ratios that are greater than 1:1.

Typo

Table 2 on page 13 of the draft permit contains a typo. Sample Type for Flow is written as "gage." We presume this is meant to be "gauge."

EPA EXHIBIT # 7

ADMINISTRATIVE RECORD # 38

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

July 1, 2009

Sharon Wilson
EPA Region 10
Office of Water and Watersheds OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

RE: City of Twin Falls Wastewater Treatment Plant Draft NPDES Permit, Public Notice ID-002127-0 City of Twin Falls Fact Sheet

Dear Ms. Wilson:

Thank you for the opportunity to provide comment regarding the draft NPDES permit for the City of Twin Falls Wastewater Treatment Plant. As the Idaho Department of Environmental Quality's (IDEQ) TMDL Program Manager, and coordinator for pollutant trading, I want to take this time to direct my suggestions toward language included in the Fact Sheet and in the Draft Permit with regard to Pollutant Trading in Idaho generally, and Pollutant Trading specifically in the Upper Snake Rock Subbasin-Middle Snake River as provided for in the "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" of November 2003.

Pollutant trading is authorized in the Idaho Water Quality Standards under IDAPA 58.01.02 § 054.06. (3-27-97). The State of Idaho subsequently developed the "Pollutant Trading Guidance" currently dated November 2003 draft. The Guidance identifies Trading Components including parties to trading, generation of tradable credits, and watershed specific environmental protections. It also covers the elements of Reporting Requirements and Record Keeping such as various forms and reports and a trade tracking database. Other key elements of the Guidance are Trade Reviews, and Best Management Practices List.

The Pollutant Trading Guidance started initially as a Framework to identify and facilitate trading for the Lower Boise River watershed. All of the key elements of the Guidance can and will be utilized for point source to point source trades as well as point source to non point source trades. However, the Appendices specify the specific kinds of forms that need to be filed with EPA, IDEQ and the Idaho Clean Water Cooperative (or IDEQ in its stead) in order for trades to be certified as permissible under the trading guidance for a specified watershed. The current Appendix C for the Middle Snake River spells out watershed specific ratios and the river reaches where trading may occur under the current version of the Pollutant Trading Guidance. Trading is not authorized by IDEQ at this time for trades between point sources and non point sources. For that to occur, BMPs would need to be identified through a process outlined in the Pollutant Trading Guidance and. publicly vetted. Credits to trade would need to be determined for non point sources as well. The same holds true for the addition of more stream reaches and the pertinent location ratios.

IDEQ recommends that EPA include language in the permit that states the following: "Pollutant trading shall be authorized consistent with the "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) as published by the Idaho Department of Environmental Quality. Revisions of this guidance by IDEQ will be made after notice and an opportunity for public comment. Subsequent revisions and versions of the Pollutant Trading Guidance by IDEQ will govern pollutant trading and this permit until such time as the permit is renewed for a new five year permit term."

The inclusion of this language then obviates the necessity of re-opening the NPDES permit, should the Pollutant Trading Guidance be revised in the interim.

Specific Comments Regarding the Fact Sheet

Page 23
The Fact Sheet references Appendix D for more detail on the processes, but it was unclear that you are referring to Appendix D of your EPA Fact Sheet, as opposed to IDEQ's Pollutant Trading Guidance.

The title of the Pollutant Trading Guidance used variously by EPA is not consistent between the Fact Sheet and the actual draft NPDES Permit for the City of Twin Falls. This may be confusing to the public.

The fact sheet implies that EPA could modify the permit to allow for trading with non point sources. It has been my experience that EPA is quite reluctant to reopen permits. If EPA adopts DEQ's suggested language suggested above, this kind of modification would be unnecessary as would much of the language on page 23, since all those attributes of pollutant trading are clearly spelled out in the Pollutant Trading Guidance.

EPA is, however, accurate in stating that trading for the Upper Snake Rock Watershed is currently only authorized for point source to point source trading, only on three reaches of the river, and only for Total Phosphorus.

Appendix D
Appendix D does a good job of articulating the basics and procedures that the NPDES permittee (in this case City of Twin Falls WWTP) needs to undertake to sell credits. Oddly, you don't mention them as a potential buyer of credits. They would be eligible to do so. Items 4 and 5 would both benefit from an example of the "time frame" when one submits the adjusted discharge in their DMR by the 10th day of the second month following sampling. I'd be happy to discuss with you how to better illustrate this visually.

Specific Comments Regarding the Draft NPDES Permit for City of Twin Falls Wastewater Treatment Plant

Page 7
Under B1 please reference the Pollutant Trading Guidance as "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) and incorporate IDEQ's suggested language: "Pollutant trading shall be authorized consistent with the "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) as published by the Idaho Department of Environmental Quality. Revisions of this guidance by IDEQ will be made after notice and an opportunity for public comment. Subsequent revisions and versions of the Pollutant Trading Guidance by IDEQ will govern pollutant trading and this permit until such time as the permit is renewed for a new five year permit term."

I also recommend rewording the remainder of Item 1 as follows: "See Appendix A to view examples of forms required to document purchased or sold pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ). See Appendix C for the specific Upper Snake Rock Subbasin-Middle Snake River Pollutant Trading Ratios."

Appendix A, pages 37 and 38
Be sure the permit language is consistent with our recommendations above. The pollutant being traded is Total Phosphorus currently and should be spelled out. However, EPA should make clear in the permit that if other pollutants become available for trading during the term of the permit, through IDEQ's public process as spelled out in our recommended trading language, that the City of Twin Falls WWTP is authorized to participate.

Should EPA have any questions regarding these comments please feel free to contact me at 208-373-0382.

Sincerely,

Marti Bridges

Ms. Marti Bridges
TMDL Program Manager
Pollutant Trading Coordinator

MB:bmm

c: Sonny Buhidar, DEQ Twin Falls RO
Michael McIntyre, DEQ Surface Water Program Manager
Bill Stewart, EPA R10 IOO
John Drabek, EPA R10 Seattle

EPA EXHIBIT # 8

ADMINISTRATIVE RECORD # 101

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

is authorized to discharge from a facility located in Twin Falls, Idaho, at the following location:

Outfall	**Receiving Water**	**Latitude**	**Longitude**
001	Snake River	42^0 36' 36" N	114^0 29' 06 W

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **November 1, 2009**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2014.**

The permittee shall reapply for a permit reissuance on or before **May 4, 2014**, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 22nd day of September, 2009,

/s/ Christine Psyk for _____
Michael A. Bussell, Director
Office of Water and Watersheds

This permit modification is effective on August 1, 2010.

Signed this 24th day of June, 2010,

/s/ Christine Psyk for _____
Michael A. Bussell, Director
Office of Water and Watersheds

Table of Contents

List of Tables

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be postmarked by the 10th day of the month. (see §III.B)
2. Surface Water Monitoring & Stream Flow Data Report	Surface water monitoring results and stream flow data for the calendar year must be submitted no later than January 31 of the following year. (see §§I.E.6 & 7)
3. Compliance Schedule for Total Suspended Solids	Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule for total suspended solids must be submitted no later than 30 days after the schedule date. Due dates: July 31, 2010; July 31, 2011; July 31, 2012; July 1, 2013; and July 31, 2014. (see § I.C)
4. Quality Assurance Plan (QAP)	The permittee must provide EPA and Idaho Department of Environmental Quality (IDEQ) with written notification that the Quality Assurance Plan has been developed and implemented within 90 days after the effective date of the final permit (see §II.C.). The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.C)
5. Toxicity Reduction Evaluation Plan	The permittee must submit to EPA a copy of its TRE workplan within 90 days after the effective date of this permit. (see §I.C.5.a)
6. Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the Operations and Maintenance Plan has been developed or updated and is being implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.B)
7. Best Management Practices (BMP) Plan	The permittee must provide EPA and IDEQ with written notification that the Plan has been updated and implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.D)
8. Local Limits Evaluation	Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation. (See §II.A.5)

Item	Due Date
9. Whole Effluent Toxicity Test Results	WET test results are due with the DMRs for April and October, i.e., postmarked by May 10 and November 10, respectively. They should also be submitted with the next permit application. (See § I.D.7)
10. Expanded Effluent Test Results	Expanded effluent test results are due with the DMRs for April or October, i.e., postmarked by May 10 or by November 10, respectively, in the 2nd, 3rd, and 4th years of the permit term. They should also be submitted with the next permit application. (See § I.B)
11. Pretreatment Report	The permittee must submit a pretreatment report annually by November 1. This report will cover the period of October 1 of the previous year to September 30 of the current year. (See §II.A.9)
12. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone to (206) 553-1846 within 24 hours after the time the permittee becomes aware of the circumstances including exceedances of the maximum instantaneous limit for *E. coli* and the maximum daily limit for ammonia. (See § III.G)
13. Emergency Response and Public Notification Plan	The permittee must submit written notice to EPA and IDEQ that an overflow emergency response and public notification plan has been developed and implemented within 180 days after the effective date of the final permit. (See § II.E)
14. NPDES Application Renewal	The application must be submitted at least 180 days before the expiration date of the final permit. (see §V.B)

I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Snake River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring Requirements

1. Effluent Limitations.

The permittee must limit and monitor discharges from outfall 001 as specified in Table 1, below. All limits represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times, unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

See notes at the end of the table.

Table 1
Effluent Limitations and Monitoring Requirements

	Effluent Limitations			Monitoring Requirements		
Parameter	**Average Monthly Limit**	**Average Weekly Limit**	**Maximum Daily Limit**	**Sample Location**	**Sample Frequency**	**Sample Type**
Flow, mgd	---	---	---	Effluent	Continuous	Recording
Biochemical Oxygen Demand (BOD_5)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day	3,213 lbs/day	---	Effluent	4/week	Calculation[3]
Total Suspended Solids (TSS)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
TSS (cont.)	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day[4]	3,213 lbs/day[4]	--	Effluent	4/week	Calculation[3]
	980 lbs/day[5]	1,390 lbs/day[5]	---	Effluent	4/week	Calculation[3]
E. coli Bacteria	126 colonies/ 100 mL[6]	---	406 colonies/ 100 mL[7]	Effluent	5/month[8]	Grab

Table 1

Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations			Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
pH	6.5 – 9.0			Effluent	1/day	Grab
Total Phosphorus	710 lbs/day	990 lbs/day	---	Effluent	1/week	24-hour composite
Total Ammonia as N (5/1 – 9/30)	3.8 mg/L	---	5.4 mg/L	Effluent	1/week	24-hour composite
	247 lbs/day	---	351 lbs/day	Effluent	1/week	Calculation[3]
Total Ammonia as N (10/1– 4/30)	5.2 mg/L	---	7.5 mg/L	Effluent	1/week	24-hour composite
	338 lbs/day	---	488 lbs/day	Effluent	1/week	Calculation[3]
Temperature	--	--	--	Influent & Effluent	continuous[9]	Recording
Nitrate-Nitrogen[10]	---	---	---	Effluent	1/week	24-hour composite
Total Kjeldahl Nitrogen[11]	---	---	---	Effluent	1/week	24-hour composite
Whole Effluent Toxicity	---	---	---	Effluent	2/year [11]	24-hour composite
Expanded Effluent Testing[12]	--	--	--	Effluent	1 each in 2nd, 3rd, & 4th years of the permit[13]	24-hr composite

[1] Influent and effluent composite samples shall be collected during the same 24-hour period.
[2] Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.
[3] Loading is calculated by multiplying the concentration (mg/L) by the flow (mgd) on the day sampling occurred and a conversion factor of 8.34.
[4] The interim mass based limits for TSS apply until the facility achieves compliance with the final limits, but no later than June 30, 2014; see §I.C, below.
[5] The final mass based limits for TSS apply as soon as possible but no later than June 30, 2014; see §I.C, below.
[6] The monthly average for *E. coli* is the geometric mean of all samples taken during the month.
[7] This is an instantaneous maximum limit, applicable to each grab sample without averaging.
[8] Five samples taken every three (3) to seven (7) days over a thirty (30) day period.
[9] Continuous temperature monitoring means recording temperature in 1 hour intervals, 24 hours per day.
[10] If analyses are showing non-detect, the method detection limits in Table 3 must be achieved.
[11] in April and October
[12] See NPDES Permit Application Form 2A, Part D for the list of pollutants to include in this testing.
[13] Expanded effluent testing must occur on the same day as a whole effluent toxicity test and must be submitted with the WET test results with the next DMR as well as with the next permit application.

2. The permittee must report within 24 hours to EPA at (206) 553-1846 any violation of the maximum daily limit for ammonia or of the instantaneous maximum limit for *E. coli.* The

permittee must report violations of all other effluent limits at the time that discharge monitoring reports are submitted (See §III.B and §III.G, below).

3. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

4. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.

5. Reporting Low Results.

   a) For all effluent monitoring, the permittee must use methods that can achieve a minimum level (ML) less than the effluent limitation. The minimum level is defined as 3.18 × method detection limit (MDL); see Table 3 below for MDLs. For parameters that do not have effluent limitations, the permittee must use methods that can achieve MDLs less than or equal to those specified in Table 3.

   b) For purposes of reporting on the Discharge Monitoring Report (DMR) for a single sample, if a value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the permittee must report "less than {numeric value of the ML}."

   c) For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the permittee must report "less than {numeric value of the ML}." If the average value is equal to or greater than the ML, the permittee must report the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Compliance Schedule for Total Suspended Solids

1. The permittee must comply with all effluent limitations and monitoring requirements in Table 1, above, beginning on the effective date of this permit, except those for which a compliance schedule is specified in § I.C.2, below.

2. A schedule of compliance is authorized for achieving compliance with the final mass-based limits for Total Suspended Solids. The permittee must achieve compliance with the final mass-based effluent limitation for Total Suspended Solids set forth in Table 1 of this permit as soon as possible, but not later than July 1, 2014.

3. While the schedule of compliance specified in § I.C.2 is in effect, the permittee must:

   a) meet the concentration-based and interim mass-based effluent limits and the minimum removal rate required in Table 1; and

   b) meet the milestones listed in §I.C.5, below.

4. Interim Requirements for the Schedule of Compliance

   a) By July 1, 2010, the permittee must complete the Chemical Enhancement Primary Treatment (CEPT);.

   b) By July 1, 2011, the permittee must develop a facility plan to achieve the final TSS mass limits;

   c) By July 1, 2012, the permittee must select a design alternative and bid to begin construction to achieve final TSS mass effluent limitations;

d) By July 1, 2013, the permittee must report on progress toward achieving final compliance by July 1, 2014;

e) By July 1, 2014, the permittee must complete start-up and optimization of its chosen design alternative and achieve compliance with the final TSS mass-based effluent limitations of Table 1 of the permit.

5. The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the total suspended solids mass effluent limitations. The annual Report of Progress must be submitted by July 31, 2010, and annually thereafter, except that the 2013 report is due on July 1, until compliance with the final TSS mass effluent limits is achieved. See also Part III.J., "Compliance Schedules". At a minimum, the annual report must include:

a) An assessment of the previous year of TSS effluent data and comparison to the TSS interim and final mass effluent limitations.

b) A report on progress made towards meeting the TSS mass effluent limitations, including the applicable deliverable required under §I.C.4, above.

c) Further actions and milestones targeted for the upcoming year.

D. Whole Effluent Toxicity Testing Requirements

The permittee must conduct chronic toxicity tests on effluent samples from outfall 001. Testing must be conducted in accordance with subsections 1 through 7, below.

1. Toxicity testing must be conducted on 24-hour composite samples of effluent. In addition, the composite sample must be analyzed for the chemical and physical parameters required in Part I.B. If the timing of composite samples for the toxicity test coincides with the timing of composite sampling required in Part I.B for selected parameters listed in Table 1, a split of the composite sample that is analyzed for the parameters of Part I.B needing composite samples will fulfill Part I.B requirements as well. If a parameter in Part I.B must be monitored with a grab sample, the grab sample requirement remains and is not altered by the ability to use the toxicity composite sample for analysis of Part I. B parameters requiring composite sampling.

2. Chronic Test Species and Methods

a) Chronic tests must be conducted twice per year, once in April and once in October concurrently with the pretreatment sampling for metals and, when applicable, concurrently with expanded effluent testing.

b) The permittee must conduct short-term tests with the water flea, Ceriodaphnia dubia (survival and reproduction test), and the fathead minnow, Pimephales promelas (larval survival and growth test), for the first three suites of tests. After this screening period, monitoring must be conducted using the most sensitive species. Chronic toxicity testing requires a fresh sample every other day (day 1, 3, 5). The effluent data must be obtained from the composite sample used for day 1 toxicity tests. Toxicity test samples for days 1, 3 and 5 will be analyzed for BOD5, TSS, E. coli, alkalinity, ammonia, conductivity, dissolved oxygen, hardness, pH, and temperature.

c) The presence of chronic toxicity must be determined as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

d) Results must be reported in TUc (chronic toxic units), TUc = 100 / IC25. If acute toxicity (lethality) is noted during the chronic test, the permittee must report the LC_{50} also.

3. Toxicity Triggers

a) Chronic Toxicity Trigger. If the results of the chronic toxicity test exceed 4 TU_c, the results show chronic toxicity, and the permittee must conduct accelerated toxicity testing. See § C.4, below.

b) Acute Toxicity Trigger. If acute toxicity is demonstrated and the LC_{50} is higher than 3.85 TU_a, the permittee must conduct accelerated toxicity testing. See § C.4, below.

4. Accelerated testing

a) If the chronic testing result exceeds 4.0 TUc, or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a, the permittee must conduct six more tests, at two week intervals over the following twelve-week period, beginning within two weeks of receipt of the sample results that exceed the trigger levels.

b) If chronic toxicity exceeds 4.0 TU_c or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a in any of the six additional tests, the permittee must develop and initiate a Toxicity Reduction Evaluation (TRE) workplan, as described in § E.5, below.

c) If none of the six tests required under this section indicates toxicity, the permittee may return to the normal testing frequency.

5. Toxicity Reduction Evaluation (TRE)

a) TRE Workplan Development.

The permittee must submit to EPA a copy of its TRE workplan [1-2 pages] within 90 days after the effective date of this permit. This plan must describe the steps the permittee intends to follow in the event that whole effluent toxicity testing shows statistically significant toxicity at the dilution that corresponds to that anticipated at the edge of the chronic mixing zone (4:1) and should include at a minimum:

i) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

ii) A description of the facility's strategy for maximizing in-house treatment efficiency and employing good housekeeping practices;

iii) A list of all chemicals used in the operation of the facility; and

iv) A discussion about who will conduct a toxicity identification evaluation (TIE) (i.e., in-house or other) if one is necessary.

b) TRE Workplan Implementation.

i) The TRE workplan is implemented if whole effluent toxicity testing shows toxicity greater than exceeds 4 TU_c or 3.85 TU_a.

ii) Accelerated testing required in § I.D.4 is considered part of the first step of implementing the TRE.

iii) The permittee must begin implementing the TRE within thirty (30) days after receipt of the accelerated testing sample results in excess of trigger levels. The permittee may use *Toxicity Reduction Evaluation Guidance for Municipal Wastewater*

Treatment Plants, EPA/833-B-99-002, August 1999, in developing a TRE workplan.

6. Quality Assurance

The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger (i.e. 25%); two dilutions above the RWC, and two dilutions below the RWC.

a) All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms,* Fourth Edition, EPA/821-R-02-013, October 2002, and individual test protocols.

b) In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

(i) If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.

(ii) If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days after receipt of the test results.

(iii) Control and dilution water must be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water must also be used. Receiving water may be used as control and dilution water upon notification of EPA and IDEQ. In no case may water that has not met test acceptability criteria be used for either dilution or control.

7. Reporting

a) Results of toxicity tests, including any accelerated testing conducted during the month, must be reported on the next Discharge Monitoring Report (DMR) after receiving the results of the test and with the next permit application.

b) The permittee must attach to the DMR a report that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; (3) the flow rate at the time of sample collection; and (4) the results of the effluent analysis for chemical parameters including expanded effluent testing required for the outfall as defined in §I.B.~~2~~1.

c) The permittee must report test results for chronic tests in accordance with the guidance in the chapter on "Report Preparation and Test Review" found in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (the "manual"), Fourth Edition, EPA/821-R-02-013, October 2002.

E. Surface Water Monitoring Requirements

The permittee must conduct surface water monitoring in each calendar quarter of the year as indicated in Table 2, below.

1. Pollutant and water quality parameter monitoring locations

a) Pollutant and water quality parameter monitoring must be conducted in the Snake River at monitoring stations approved by IDEQ. These monitoring points must be:

(i) One upstream of the influence of the facility's discharge, and

(ii) For selected pollutants and parameters, one downstream of the facility's discharge, at a point where the effluent and the Snake River are completely mixed.

b) The permittee must seek approval from IDEQ for any changes to the surface water monitoring stations. A failure to obtain IDEQ approval of surface water monitoring stations does not relieve the permittee of the surface water monitoring requirements of this permit.

2. Sample Collection

a) To the extent practicable, surface water sample collection must occur on the same day as effluent sample collection.

b) All surface water samples must be grab samples.

3. Flow measurement

The flow rate must be recorded at least at the same time that other surface water parameters are sampled. See also §I.E.7, below, for the compliance schedule for establishing a stream gage.

4. Sample Analysis

Samples must be analyzed for the parameters listed in Table 2 and must achieve the method detection limits (MDLs) shown in Table 3, unless results consistently exceed a higher MDL for another approved method, in which case, that method may be used.

See notes on next page.

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Flow	mgd	daily Upstream	gage
TSS	mg/L	4/year[14] Upstream	Grab
E. coli bacteria	colonies/100 mL	4/year[14] Upstream	Grab
Dissolved oxygen	mg/L	4/year[14] Upstream	Grab
pH	standard units	4/year[14] Upstream and Downstream	Grab
Temperature	ºC	4/year[14] Upstream and Downstream	Grab
Total ammonia as N	mg/L	4/year[14] Upstream and Downstream	Grab
Total Nitrate as N	mg/L	4/year[14] Upstream	Grab
Total Nitrite as N	mg/L	4/year[14] Upstream	Grab
Total Phosphorus as P	mg/L	4/year[14] Upstream	Grab
Arsenic	mg/L	4/year[14] Upstream	Grab[15]
Cadmium	mg/L	4/year[14] Upstream	Grab[15]

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Chromium	mg/L	4/year[14] Upstream	Grab[15]
Copper	mg/L	4/year[14] Upstream	Grab[15]
Cyanide	mg/L	4/year[14] Upstream	Grab[15]
Lead	mg/L	4/year[14] Upstream	Grab[15]
Mercury	mg/L	4/year[14] Upstream	Grab[15]
Nickel	mg/L	4/year[14] Upstream	Grab[15]
Silver	mg/L	4/year[14] Upstream	Grab[15]
Zinc	mg/L	4/year[14] Upstream	Grab[15]
Molybdenum	mg/L	4/year[14] Upstream	Grab[15]
Selenium	mg/L	4/year[14] Upstream	Grab[15]
Hardness	mg/L	4/year[14] Upstream	Grab

[14] 4/year means once in each calendar quarter.
[15] Arsenic, cadmium, chromium, copper, cyanide, lead, nickel, silver, zinc, molybdenum, and selenium must be analyzed as dissolved. Mercury must be analyzed as total.

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Flow	---
TSS	---
E. coli Bacteria	---
Dissolved Oxygen	2.0
pH	---
Temperature	---
Total Ammonia as N	0.01
Total Kjeldahl Nitrogen	0.05
Total Nitrate as N	0.02
Total Nitrite as N	0.01
Total Phosphorus as P	0.01
Arsenic	0.0005
Cadmium	0.00005
Chromium	0.0001
Copper	0.0005
Cyanide	0.005
Lead	0.0006
Mercury	0.0002
Nickel	0.0005
Silver	0.0001
Zinc	0.0018
Molybdenum	0.0003
Selenium	0.0006
Hardness (as $CaCO_3$)	0.001

5. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under § II.C, “Quality Assurance Plan.”

6. Surface water monitoring results for the previous calendar year must be submitted to EPA by January 31of each year. At a minimum, the report must include the following:
   a) Dates of sample collection and analyses.
   b) Results of sample analysis.
   c) Relevant quality assurance/quality control (QA/QC) information.
7. Reporting Stream Flow Data from the Stream Gage in the Snake River at Twin Falls
   a) The permittee must record daily flows in the Snake River at the established stream gage.
   b) By January 31 of each year, the permittee must submit to EPA streamflow data for the previous calendar year.

II. Special Conditions

A. Pretreatment Requirements

1. Implementation

The permittee must implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original approved pretreatment program submission, any program amendments submitted thereafter and approved by EPA, and the general pretreatment regulations (40 CFR Part 403) and any amendments thereof. At a minimum, the permittee must carry out the following activities:

a) Enforce prohibitive discharge standards as set forth in 40 CFR §403.5(a) and (b), categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act (where applicable), and local limitations and BMPs developed by the permittee in accordance with 40 CFR §403.5(c), whichever are more stringent and are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations must be defined as pretreatment standards under Section 307(d) of the Act.

b) Implement and enforce the requirements of the most recent and EPA-approved portions of local law and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.

c) Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee must notify these users of applicable pretreatment standards in accordance with 40 CFR §403.8(f)(2)(iii).

d) Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents must contain, at a minimum, conditions identified in 40 CFR §403.8(f)(1)(iii), including Best Management Practices, if applicable. The permittee must follow the methods described in its implementation procedures for issuance of individual permits.

e) Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment standards and requirements. The permittee must retain all records relating to its pretreatment program activities for a minimum of three years, as required by 40 CFR §403.12(o), and must make such records

available to EPA upon request. The permittee must also provide public access to information considered effluent data under 40 CFR Part 2.

f) Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Multi-Jurisdictional Agreement (MJA) that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

g) Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A complete inspection of all SIUs and sampling of all SIUs' effluent must be conducted at least annually.

h) Require SIUs to conduct wastewater sampling as specified in 40 CFR §403.12(e) or (h). Frequency of wastewater sampling by the SIUs must be appropriate for the character and volume of the wastewater but no less than twice per year. Sample collection and analysis must be performed in accordance with 40 CFR §403.12(b)(5)(ii) through (v) and 40 CFR Part 136. In cases where the Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the permittee must require the User to submit documentation to determine compliance with the Standard. If the permittee elects to conduct all non-domestic user monitoring for any SIU instead of requiring self-monitoring, the permittee must conduct sampling in accordance with the requirements of this paragraph, and the requirements of 40 CFR §403.12(g)(2).

i) Enforce and obtain remedies for any industrial user noncompliance with applicable pretreatment standards and requirements. This must include timely and appropriate reviews of industrial reports to identify all violations of the user's permit, the local ordinance, and federal pretreatment standards and requirements. Once violations have been uncovered, the permittee must take timely and appropriate action to address the noncompliance. The permittee's enforcement actions must follow its EPA-approved enforcement response procedures.

j) Publish, at least annually, in a newspaper or newspapers of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR §403.8 (f)(2)(viii).

k) Maintain adequate staff, funds and equipment to implement its pretreatment program.

l) Conduct an analysis annually to determine whether influent pollutant loadings are approaching the maximum allowable headworks loadings calculated in the permittee's most recent local limits calculations. Any local limits found to be inadequate by this analysis must be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.

2. Spill Prevention and Slug Discharges

The permittee must implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users.

a) Control mechanisms for SIUs must contain requirements to control slug discharges if determined by the POTW to be necessary [40 CFR §403.8(f)(1)(iii)(B)(6)].

b) SIUs must be evaluated for the need for a plan or other action to control slug discharges within 1 year of being designated an SIU.

c) SIUs must notify the POTW immediately of any changes at their facilities affecting the potential for a slug discharge [40 CFR §403.8(f)(2(vi)].

3. Enforcement Requirement

Whenever EPA finds, on the basis of any available information, that the owner or operator of any source is introducing a pollutant into the POTW in violation of national pretreatment standards, including prohibited discharges, local limits, or categorical standards, or is causing interference or pass through, EPA may notify the owner or operator of the POTW of such violation. If, within 30 days after EPA sends such notification to the POTW, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in Section 309(f) of the Clean Water Act.

4. Modification of the Pretreatment Program

If the permittee elects to modify any components of its pretreatment program, it must comply with the requirements of 40 CFR §403.18. No substantial program modification, as defined in 40 CFR §403.18(b), may be implemented prior to receiving written authorization from EPA.

5. Local Limits Evaluation

Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation pursuant to 40 CFR §403.5(c)(1). The study must take into account water quality in the receiving stream, inhibition levels for biological processes in the treatment plant, and sludge quality goals. The study must address at least the following pollutants: arsenic, 5-day biochemical oxygen demand, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, total suspended solids, and zinc and any other pollutants of concern. The permittee must address total ammonia as N if the POTW accepts non-domestic discharges of ammonia. Submitted results of the study must include proposed local limits, maximum allowable headworks loadings, all supporting calculations, and all assumptions.

6. Control of Undesirable Pollutants

The permittee must not allow introduction of the following pollutants into the publicly owned treatment works (POTW):

a) Pollutants which will create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140º F or 60º C using the test methods specified in 40 CFR §261.21;

b) Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0, unless the POTW is designed to accommodate such discharges;

c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW (including the collection system) resulting in interference;

d) Any pollutant, including oxygen demanding pollutants (e.g. BOD_5, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e) Heat in amounts which inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40º C (104º F) unless the Regional Administrator, upon request of the POTW, approves alternate temperature limits;

f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

7. Requirements for Industrial users

The permittee must require any industrial user of its treatment works to comply with any applicable requirements in 40 CFR Parts 403 through 471.

8. Sampling Requirements

a) Parameters: The permittee must sample influent and effluent from the POTW for arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc. Metals must be analyzed and reported as total metals. If the POTW accepts ammonia from industrial sources, the permittee must also sample the POTW influent and effluent for ammonia. The permittee must sample sludge for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, percent solids, selenium and zinc.

b) Frequency: Sampling must be conducted twice per year: once in April and once in October.

c) Sampling Locations and Sample Type: The permittee must sample as described in Table 4. To the extent that the timing of effluent sampling coincides with sampling required for whole effluent toxicity testing under paragraph insert paragraph number, these results will satisfy the requirements of that paragraph.

Table 4

Pretreatment Monitoring Requirements

Wastestream	Sample Type	Frequency
Influent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Effluent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Sludge	Grab	Once, during the same time period that influent and effluent samples are being taken

1. Influent and effluent samples for cyanide must be collected and analyzed as required in paragraph.8.h of this part.

d) Analytical Methods: For influent and effluent pretreatment sampling, the permittee must use EPA-approved analytical methods that achieve the method detection limits (MDLs) in Table 3, above, unless higher minimum detection limits are approved by EPA. Requests for higher MDLs for pretreatment monitoring must be submitted in writing to the Pretreatment Coordinator at the address in paragraph 9, below.

e) Sludge Sampling: Sludge samples must be taken as the sludge leaves the dewatering device or digesters.

f) Sludge Reporting: Metals concentrations in sludge must be reported in mg/kg, dry weight.

g) Reporting Results: Analytical results for each day's samples must be reported separately. Sample results must be submitted with the pretreatment annual report required in § II.A.9, below.

h) Cyanide sampling: Influent and effluent sampling for cyanide must be conducted as follows. Eight discrete grab samples must be collected over a 24-hour day. Each grab sample must be at least 100 ml. Each sample must be checked for the presence of chlorine and/or sulfides prior to preserving and compositing (refer to Standard Methods, 4500-CN B). If chlorine and/or sulfides are detected, the sample must be treated to remove any trace of these parameters. After testing and treating for the interference compounds, the pH of each sample must be adjusted, using sodium hydroxide, to 12.0 standard units. Each sample can then be composited into a larger container which has been chilled to 4 degrees Celsius, to allow for one analysis for the day.

9. Pretreatment Report

a) The permittee must submit an annual report pursuant to 40 CFR §403.12(i) that describes the permittee's pretreatment program activities over the period October 1 of the previous year to September 30 of the current year. This report must be submitted to the following address no later than November 1 of each year:

Pretreatment Coordinator
U.S. Environmental Protection Agency
Region 10, OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

b) The pretreatment report must be compiled following the Region 10 Annual Report Guidance. At a minimum, the report must include:

(i) An updated non-domestic user inventory, including those facilities that are no longer discharging (with explanation), and new dischargers, appropriately categorized and characterized. Categorical users should have the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.

(ii) Results of wastewater and sludge sampling at the POTW as specified in Part II.A.8 (above).

(iii) Calculations of removal rates for each pollutant for each day of sampling.

(iv) An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality. This should include a comparison between influent loadings and the most recent relevant maximum allowable headworks loadings calculated for the treatment plant.

(v) Status of program implementation, including:

(a) Any planned modifications to the pretreatment program that have been approved by EPA, including staffing and funding updates.

(b) A description of any interference, upset, or NPDES permit violations experienced at the POTW which were directly or indirectly attributable to non-domestic users, including:

(01) Date & time of the incident

(02) Description of the effect on the POTW's operation

(03) Effects on the POTW's effluent and biosolids quality

(04) Identification of suspected or known sources of the discharge causing the upset

(05) Steps taken to remedy the situation and to prevent recurrence

(vi) Listing of non-domestic users inspected and/or monitored during the report year with dates and an indication compliance status.

(vii) Listing of non-domestic users planned for inspection and/or monitoring for the coming year along with associated frequencies.

(viii) Listing of non-domestic users whose permits have been issued, reissued, or modified during the report year along with current permit expiration dates.

(ix) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards during the report year as required in 40 CFR §403.8(f)(2)(iii).

(x) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.

(xi) Status of enforcement activities including:

(a) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:

(01) Summary of the violation(s).

(02) Enforcement action taken or planned by the permittee.

(03) Present compliance status as of the date of preparation of the pretreatment report.

(b) Listing of those users in significant noncompliance during the report year as defined in 40 §CFR 403.8(f)(2)(viii) and a copy of the newspaper publication of those users' names.

(c) EPA may require more frequent reporting on those users who are determined to be in significant noncompliance.

B. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E of this permit (Proper Operation and Maintenance), within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that an operations and maintenance plan for the wastewater treatment facility has been developed and implemented. The plan shall be retained on site and made available on request to EPA and IDEQ.

C. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. Any existing QAPs may be modified for compliance under this section. The QAP must be completed within 90 days after the effective date of the final permit. Within 90 days after the

effective date of the permit, the permittee must provide written notice to EPA and IDEQ that the QAP has been developed or updated and is being implemented.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.

2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.

3. At a minimum, the QAP must include the following:
   a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
   b) Map indicating the location of each sampling point.
   c) Qualification and training of personnel.
   d) Name, address and telephone number of the laboratory used by or proposed to be used by the permittee.

4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.

5. Copies of the QAP must be kept on site and made available to EPA and/or IDEQ upon request.

D. Best Management Practices Plan

1. The permittee must maintain and update as needed the Best Management Practices Plan (BMP Plan), which was implemented under the last permit.

2. Within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that the BMP plan has been updated and is being implemented.

3. The BMP Plan must be retained on site and made available to EPA and IDEQ upon request.

4. The BMP Plan must include pollution prevention measures which prevent, or minimize, the potential for the release of nutrients to the Middle Snake River. The BMP must be consistent with the Municipal Industry Management Actions of the Middle Snake River Watershed Management Plan (Table 30). The description of management controls must address, to the extent practicable, the following minimum components:
   a) Research, develop and implement a public information and education program;
   b) Water conservation;
   c) Land application of treated effluent;
   d) Land application of biosolids;

e) Storm water pollution prevention; and

f) Operational practices that can be used to reduce nutrient levels in the effluent.

E. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the final permit. At a minimum the plan must include mechanisms to:

   a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;

   b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

   c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;

   d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and

   e) Provide for continued operation during emergencies.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 180 days after the effective date of the final permit. Any existing emergency response and public notification plan may be modified for compliance with this section.

F. Modification for Cause

This permit may be modified for cause in compliance with 40 CFR §122.62. Cause for modification includes, but is not limited to, new information which was not available at the time of permit issuance and which would have justified the application of different permit conditions at the time of issuance.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with § III.C ("Monitoring Procedures"). The permittee must report all additional monitoring in accordance with § III.D ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

1. Paper Copy Submissions

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of § V.E of this permit ("Signatory Requirements"). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement, with copies to IDEQ at the following addresses:

US EPA Region 10
Attn: ICIS Data Entry Team, OCE-133
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301

2. Electronic submissions

If, during the period when this permit is effective, EPA makes electronic reporting available, the permittee may, as an alternative to the requirements in §III.B.1, above, submit reports monthly, electronically by the 10th day of the following month, following guidance provided by EPA. The permittee must certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. ("Signatory Requirements"). The permittee must retain the legible originals of these documents and make them available, upon request, to the EPA Region 10 Director, Office of Compliance and Enforcement and to IDEQ.

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by EPA as alternate test procedures under 40 CFR §136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or IDEQ at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
   a) any noncompliance that may endanger health or the environment;
   b) any unanticipated bypass that exceeds any effluent limitation in the permit (See § IV.F., "Bypass of Treatment Facilities");
   c) any upset that exceeds any effluent limitation in the permit (See § IV.G., "Upset Conditions"); or
   d) any violation of a maximum daily or instantaneous maximum effluent limitation for applicable pollutants listed in the permit to be reported within 24 hours (See § I.B).
   e) any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1, above. The written submission must contain:
   a) a description of the noncompliance and its cause;
   b) the period of noncompliance, including exact dates and times;
   c) the estimated time noncompliance is expected to continue if it has not been corrected; and
   d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
   e) if the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.
4. Reports must be submitted to the addresses in Part III.B ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Part III.G.2 of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

I. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and IDEQ in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
3. For the purposes of this section, adequate notice must include information on:
   a) The quality and quantity of effluent to be introduced into the POTW, and
   b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

   US EPA Region 10
   Attn: NPDES Permits Unit Manager
   1200 6th Avenue, Suite 900,
   OWW-130
   Seattle, WA 98101-3140

J. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule in § I.C of this permit must be submitted no later than each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $37,500 per day for each violation).
2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500). Pursuant to 40 CFR §19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $177,500).
3. Criminal Penalties:
    a) Negligent Violations. The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.
    b) Knowing Violations. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c) Knowing Endangerment. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

d) False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs F.2 and 3, below.

2. Required Notice.

   a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.

   b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G ("Twenty-four Hour Notice of Noncompliance Reporting").

3. Prohibition of bypass.

   a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:

      (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

      (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

      (iii) The permittee submitted notices as required under paragraph 2 of this Part.

4. The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a) An upset occurred and that the permittee can identify the cause(s) of the upset;

   b) The permitted facility was at the time being properly operated;

   c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and

   d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in Part III.I.4. and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §122.62, §122.64, or §124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and IDEQ, within the time specified in the request, any information that EPA or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or IDEQ, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or IDEQ, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and IDEQ must be signed and certified as follows.

1. All permit applications must be signed as follows:
   a) For a corporation: by a responsible corporate officer.
   b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
   c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a) The authorization is made in writing by a person described above;
   b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ.

3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2 must be submitted to the Director of the Office of Compliance and Enforcement and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this Part must make the following certification:
   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for

gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; IDEQ; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance are mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. "Act" means the Clean Water Act.
2. "Administrator" means the Administrator of the EPA, or an authorized representative.
3. "Average monthly effluent limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
4. "Average weekly effluent limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
5. "Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Composite" - see "24-hour composite".
8. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
9. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
10. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
11. "DMR" means discharge monitoring report.
12. "EPA" means the United States Environmental Protection Agency.
13. "Geometric Mean" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
14. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
15. "IC_{25}" means the inhibition concentration, the concentration of the effluent, that would cause a 25 percent reduction in a non-lethal biological measurement, e.g. reproduction or growth)
16. "IDEQ" means the Idaho Department of Environmental Quality.

17. "Interference" is defined in 40 CFR 403.3.

18. "LC_{50}" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.

19. "Maximum daily effluent limitation" means the highest allowable "daily discharge."

20. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

21. "Minimum Level (ML)" means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.

22. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.

23. "Pass Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

24. "POTW" means publicly owned treatment works, i.e. the permittee.

25. "QA/QC" means quality assurance/quality control.

26. "Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

27. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

28. "24-hour composite" sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

29. "TU_a" ("Acute Toxic Unit") is a measure of acute toxicity. TU_a is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC_{50}")

30. "TU_c "(Chronic toxic unit) is a measure of chronic toxicity. TU_c is the reciprocal of the effluent concentration that causes 25 percent inhibition by the end of the chronic exposure period (i.e., 100/"IC_{25}").

31. "USGS" means United State Geological Survey.

32. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond

the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

EPA EXHIBIT # 9

ADMINISTRATIVE RECORD # 102

RESPONSE TO COMMENTS ON MODIFICATION

City of Twin Falls
Wastewater Treatment Plant
NPDES Permit #ID-002127-0
June 20, 2010

On March 29, 2010, the U.S. Environmental Protection Agency (EPA) issued a public notice for the draft modification of the City of Twin Falls Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Permit No. ID-002127-0 (the Twin Falls permit) to not include water quality trading provisions for phosphorus discharges from the sewage treatment plant. This Response to Comments provides a summary of significant comments and provides EPA's responses. Upon reconsideration, EPA determined that because the wasteload allocations in The Upper Snake Rock TMDL Modification (July, 2005) (2005 TMDL Modification) were based on assumed attenuation, the trading ratios of 1:1 in the 2009 Permit were not valid. The trading provisions in the 2009 permit could not assure that the state water quality standards would be met as required by CWA section 301(b)(1)(C).

The primary comments on removal of the trading provisions are from the City of Twin Falls. The City believes EPA did not correctly interpret the 2005 TMDL Modification in its decision to withdraw the water quality trading provisions included in the Twin Falls permit.

Commenters: Fritz Wonderlich, Wonderlich & Wakefield, Twin Falls City Attorney,
Justin Hayes, Program Director, Idaho Conservation League.

I. City of Twin Falls Comments

1. **Comment:** The City of Twin Falls (the City) commented: "The Fact Sheet, provided with the Notification of Draft Permit Modification, states that "trading ratios are not consistent with the attenuation assumptions of the TMDL." This statement is in error. The Fact Sheet also refers to an alleged inconsistency between Idaho's 2003 trading guidance, which provides for a 1:1 trading ration for all segments, and the 2005 Upper Snake Rock TMDL Modification, which contains a percent of reduction in phosphorus by attenuation that does not support a trading ratio of 1:1 for this reach of the Snake River. This is also an error. The 2005 Upper Snake Rock TMDL Modification contains no loss/attenuation percentages, nor any other data inconsistent with 1:1 phosphorus trading. The stated basis for the proposed modification is EPA's misunderstanding of the discussion of "8.0 Loss and Attenuation" contained in the 2005 Upper Snake Rock TMDL Modification.

	"==========TP Loss/Attenuation=========		
Compliance Point	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L"

Section 8.0 contains a table labeled "TP (total phosphorus) Loss/Attenuation" which in reality is a table comparing the derived concentrations of TP at each compliance point. The percentage given in the Section 8.0 table do not measure loss/attenuation, but rather the percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river, and each segment of the river, of 0.075-mg/L.

Response: EPA disagrees with the City's interpretation that the TMDL does not include assumptions about attenuation in development of its wasteload allocations. Attenuation is a process by which a pollutant (e.g. phosphorus) is lost from a water column due to biological and physical processes such as algal uptake and particulate settling. Section 8 Loss and Attenuation, of 2005 TMDL Modification, page 32 describes this process.[1] The table in Section 8.0 is titled *"TP Loss/Attenuation"* with a column labeled *"%Loss/Attenuation"*. Both the titles are correct, because the TMDL calculations rest on the assumption that a fraction of the phosphorus entering each segment of the Middle Snake River from the upstream segment, as well as tributaries, groundwater and point sources within the segment, is lost from the water column prior to entering the next downstream segment. The column labeled *"% TP Loss/Attenuation"* lists the amount of total phosphorus (TP) assumed to be lost (attenuated) from the water column in each of the six segments of the Snake River.

EPA disagrees that the percentages listed in the *"%Loss/Attenuation."* column can be reasonably interpreted as *"percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river."* Nowhere in the 2005 TMDL Modification is TP "loss and attenuation" identified as a requirement or target for further phosphorus reductions. Furthermore, the City's interpretation would only be supportable in the TMDL regulatory framework if the identified percent reductions were assigned to specific sources. There is no such assignment. Rather, EPA relies on the Idaho Department of Environmental Quality's (IDEQ's) plain language describing the percentage values as *"loss"* and *"attenuation"* from the water column and incorporates the estimated losses into the TMDL calculations in a transparent manner. In contrast, under the City's reading, IDEQ has highlighted a series of necessary loading reductions, erroneously labeled them "loss/attenuation", and failed to assign these reductions to specific sources as required by TMDL regulations. EPA does not believe this interpretation is reasonable.

Contrary to the City's assertion, the State of Idaho Department of Environmental Quality Pollutant Trading Guidance, November 2003 draft, (2003 draft Trading Guidance), and the 2005 TMDL Modification are not compatible. In allowing trading in the Twin Falls permit (Condition I.B.1 on page 7 and Appendix A on page 37), EPA relied on the 2003 draft Trading Guidance which requires environmental equivalency: *"Environmental equivalency is based on the relationship between the impact a given unit of a pollutant has at its point of discharge to the impact at the water body's point of concern."* (Page 4, § II.C.1.) While the 2003 draft Trading Guidance page assumed equivalency (1:1 trading ratio) for the Middle Snake River (Appendix C, pages 4, 5, and 6), IDEQ also recognized the effect of attenuation on trading ratios. The guidance states the following: *"If, however, the pollutant is taken up through plants, settles out, is diverted by agricultural uses or is diminished in some other way,*

[1] : "The assumption is made that total losses to volatilization, soil adsorption, sedimentation, groundwater storage, and denitrification equal the difference between the total inputs and the output. Relative to TP in an aquatic system, volatilization and denitrification do not apply. Phosphorus is present in several forms in an aquatic system, and not all forms are readily available for uptake by phytoplankton. On the other hand, sediment deposits may be organic-rich, thus being affected by volatilization and denitrification. Therefore, TP attenuation may be a combination of substrate sedimentation as well as plant uptake. (2005 TMDL Modification, page 32)

a buyer may have to purchase more credits than it actually needs at its discharge point to account for the actual reduction in the water body." (Page 5, § II.C.1.)

Subsequent to the drafting of the IDEQ's 2003 draft Trading Guidance, IDEQ incorporated assumptions about loss/attenuation into the 2005 TMDL Modification. The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan, the Upper snake Rock Subbasin Assessment & The Upper Snake Rock Total Maximum Daily Load., December 20, 1999, did not contain any assumption about attenuation . Furthermore, the 2003 draft Trading Guidance was not revised to address the assumptions and calculations regarding attenuation in the 2005 TMDL Modification. Therefore, trading ratios established in the IDEQ 2003 draft Trading Guidance did not consider attenuation. IDEQ has since stated its intent to revise and finalize the Trading Guidance and has also stated that there are some *"definite deficiencies"* in the 2003 draft Trading Guidance that have yet to be resolved (e-mail Balthasar Buhidar to John Drabek, February 10, 2010). EPA concurs with IDEQ's conclusion that the 2003 draft Trading Guidance is deficient. The final trading guidance must include equivalency ratios based on attenuation before EPA will include trading in NPDES permits for the Middle Snake River.

2. Comment: The City of Twin Falls commented: "the derived TP for Pillar Falls shown in Section 10.1 of the 2005 TMDL is 0.077 mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 2.8%. The derived TP for Crystal Springs shown in Section 10.2 is 0.111-mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 32.4%. And so on". "(see line item "Sub Total Concentration" for TP, Tables 1-A through 6-A, Section 10.0, 2005 Upper Snake Rock TMDL Modification) *to the target TP concentration for the river of 0.075-mg/L.*"

"See table of calculations below:

10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls Load Calculation
Derived from Table 1-A.
TP Sub Total Load (using Sources) = 1967.61 lbs/day
TP using Load Capacity of 0.075mg/L 4,737cfs X 0.0749055 X 5.39 = 1,912.52 lbs/day
Difference between Sources and Load Capacity 1,967.61 – 1912.52 = 55.09 lbs/day
Percent difference from target (1 - (1,912.52/1,967.61)) X 100 = **2.8 %**

10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs Load Calculation
Derived from table 2-A.
TP Sub Total Load (using Sources) = 3,287.13 lbs/day
TP using Load Capacity of 0.075mg/L 5,498cfs X 0.0749843 X 5.39 = 2,222.10 lbs/day
Difference between Sources and Load Capacity 3287.13 – 2,222.10 = 1,065.13 lbs/day
Percent difference from target (1 - (2,222.10/3,287.13)) X 100 = **32.4 %**

10.3 SEGMENT 3 – MIDDLE SNAKE RIVER – Crystal Springs to Box Canyon Load Calculation
Derived from table 3-A.
TP Sub Total Load (using Sources) = 3,567.65 lbs/day
TP using Load Capacity of 0.075mg/L-7,212cfs X 0.0749825 X 5.39 = 2,914.77 lbs/day
Difference between Sources and Load Capacity 3,567.65 – 2,914.77 = 652.88 lbs/day
Percent difference from target (1 - (2,914.77/3,567.65)) X 100 = **18.3 %**

10.4 SEGMENT 4 – MIDDLE SNAKE RIVER – Box Canyon to Gridley Bridge Load Calculation
Derived from table 4-A.
TP Sub Total Load (using Sources) = 4,439.65 lbs/day
TP using Load Capacity of 0.075mg/L-9,113cfs X 0.0750199X 5.39 = 3,684.91 lbs/day

Difference between Sources and Load Capacity 4,439.25 – 3,84.91= 754.74 lbs/day
Percent difference from target (1 - (3,84.91/4,439.65)) X 100 = **17.0 %**

10.5 SEGMENT 5 – MIDDLE SNAKE RIVER – Gridley Bridge to Shoestring Bridge Load Calculation Derived from table 5-A.
TP Sub Total Load (using Sources) = 4,963.83 lbs/day
TP using Load Capacity of 0.075mg/L-11,108cfs X 0.0747823 X 5.39 = 4,477.37 lbs/day
Difference between Sources and Load Capacity 4,963.83 – 4,436.25 = 760.36 lbs/day
Percent difference from target (1 - (4477.37/4963.83)) X 100 **9.8 %**

10.6 SEGMENT 6 – MIDDLE SNAKE RIVER – Shoestring Bridge to King Hill Bridge Load Calculation Derived from table 6-A.
TP Sub Total Load (using Sources) = 4,687.92 lbs/day
TP using Load Capacity of 0.075mg/L 11,398cfs X 0.0747806 X 5.39 = 4,594.16 lbs/day
Difference between Sources and Load Capacity 4,687.92 – 4,601.83= 86.08 lbs/day
Percent difference from target (1 - (4594.16/4687.92)) X 100 = **2.0 %**

The 'Percent difference from target' in the calculations above shows the *identical* percentages as contained in the TP table in Section 8.0 in the column labeled '% Loss/Attenuation.' "

Response: The tables as presented in the comment are not accurate representations of Tables 1-A, 2-A and 3-A in the 2005 TMDL. It is clear from the introductory paragraphs to the calculation tables (quoted below) that the term "attenuation" in these tables is correct. That is, they represent attenuation assumptions in the 2005 TMDL Modification, as described in the response to comment #1. These calculations were made by the commenter based on their interpretation of the entries of the tables in the 2005 TMDL Modification.

Specifically:

On page 37 of the 2005 TMDL Modification, the introductory sentence to Table 1-A states:

"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.077-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 1."

For Table 2-A the 2005 TMDL on page 43 states:

"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.111-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 2."

For Table 3-A the 2005 TMDL on page 49 states:

"Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.092-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 3."

To the extent that the city may have questions about the method by which IDEQ estimated the loss/attenuation values, these questions are properly raised when the TMDL is open to public

review. However, they are not open to review in the context of NPDES permit issuance. See also Comment 1.

3. **Comment:** The City of Twin Falls commented: "It isn't at all clear why Section 10.0 of Upper Snake Rock TMDL Modification used a TP target very slightly more or less than the 0.075-mg/L target, but it is absolutely clear that these are target TP numbers and not sampled data from each segment. See Upper Snake Rock –Five Year Review, March 2009, Table 3.3b Summary of Water Quality Data collected since 2000 on the Snake River, page 32. The sampled data looks nothing like the numbers contained in the tables above for the six segments, but are nearly identical to the target 0.075-mg/L TP for the river."

   Response: This comment does not appear relevant to EPA's modification of the NPDES permit. Rather it is a comment or question regarding the basis for some of the instream target values in the 2005 TMDL Modification. As such, issues regarding the basis for development of the TMDL are not an appropriate issue to rise in the context of an NPDES permit challenge. Nonetheless, EPA offers the following clarification.

   EPA believes that TP values in Section 10 pages 38, 43 and 50, of the 2005 TMDL Modification are consistent with IDEQ's definition and calculations for loss/attenuation (see Comments 1 and 2). EPA agrees that the target TP values are calculated values and not sample results for the current river. The use of calculations is necessary and appropriate, because TMDLs establish a future, calculated pollutant budget for the river.

4. **Comment:** The City of Twin Falls commented: "The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. 'For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL*.' "

   Response: EPA agrees that this sentence is confusing, but nonetheless the discussions in the responses to comments above identify clear and specific language in the 2005 TMDL Modification that make it clear that attenuation was taken into account in establishing wasteload allocations in the 2005 TMDL Modification.

   Loss and attenuation is identified in the 2005 TMDL Modification.

   Page 32, Section 8.0 Loss and Attenuation

   "Within this system there is "loss" (downstream transport) and "attenuation" (localized placement) of sediment and total phosphorus."

   Page 33, Last Sentence

   "The Middle Snake River has phosphorus export losses that range from 4.2 – 36.5% (Buhidar 1999A [Technical Support Document, Section VII] based on instream column monitoring data at the various compliance points. This range supports the research of Smith and Alexander (2000)."

Page 34, First Paragraph

"In addition, data from the Idaho Power Company's trash racks appears to indicate that biomass (as aquatic plant growths) are being cleaned out of the river system. The amount of biomass being collected appears to follow a pattern similar to the loss/attenuation percentage being applied to TP."

5. **Comment:** The City of Twin Falls commented: "Section 9.0 of the 2005 Upper Snake Rock TMDL Modification is entitled 'Total Phosphorus Pollutant Trading.' The first sentence of this modification refers back to the Guidance for total phosphorus trading. "Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ." The Guidance, in Appendix C, very specifically set forth a 1:1 trading program for phosphorus in this reach of the Snake River. In addition, the last paragraph of Section 9.0 of the 2005 Upper Snake Rock TMDL Modification gives an example of phosphorus trading that uses the approved 1:1 trading ratio:

   As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. *Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y.* Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ's trading guidance."

   Response: EPA did not develop nor approve IDEQ's 2003 Draft Trading Guidance. The scope of EPA's TMDL approval does not include implementation plans, including plans related to potential trading activities. Based on inconsistencies between the 2003 draft Trading Guidance and the 2005 TMDL Modification calculations, EPA believes that IDEQ erred in referring to the trading guidance in the TMDL. This error did not affect the required elements of the TMDL that were subject to EPA approval.

   Nevertheless, Section 9.0, page 35 of the 2005 TMDL Modification also correctly states that *"Pollutant trading is a tool that **can** be used to help a point source meet its NPDES phosphorus limits." "Trading is voluntary, takes place through private contracts, and is regulated through **compliance with NPDES permit requirements**." (Emphasis added).*

   EPA issues NPDES permits in the State of Idaho and has discretion on whether to include trading provisions in NPDES permits. In light of the inconsistencies outlined in the fact sheet for the permit modification and in these responses, EPA has chosen not to include the water quality trading provisions in the Twin Falls permit. In this case, EPA has determined that it cannot authorize trading until trading ratios are developed that account for the attenuation which was included in the wasteload allocations in the 2005 TMDL Modification. See also Response to Comments 1, 2 and 3.

6. **Comment:** The City of Twin Falls commented: "EPA has already approved the 1:1 ratio in the 2000 Upper Snake Rock TMDL and in the 2003 Guidance for Pollutant Trading, and there is nothing in the 2005 Upper Snake Rock TMDL that modifies the 1:1 trading ratio for

phosphorus. EPA also recognizes this 1:1 phosphorus trading ratio, as demonstrated by the issuance of the aquaculture general permit which contains this 1:1 ratio for phosphorus trading."

Response: EPA has approved, under the CWA, *The Upper Snake Rock Watershed Management Plan (or Upper Snake/Rock Creek Watershed Management Plan), The Upper Snake Rock Subbasin Assessment & The Upper Snake Rock Total Maximum Daily Load, December 20, 1999* (1999 "Mid-Snake" (Upper Snake Rock) TMDL) and the 2005 TMDL Modification to the 1999 "Mid-Snake" (Upper Snake Rock) TMDL. As noted in the previous comment, TMDL implementation, including proposed trading efforts, are not within the scope of TMDL approvals. Under the CWA, EPA is not required to approve or disapprove State Pollutant Trading Guidance and has not acted to approve Idaho's draft 2003 Pollutant Trading Guidance.

II. Idaho Conservation League Comments:

7. **Comment:** The Idaho Conservation League (ICL) commented, "We concur with EPA's conclusion that pollutant trading, as outlined in the stricken permit sections, was not technically defensible and posed a risk to water quality in the mid-Snake River region. EPA's decision making on this matter, as presented in the Fact Sheet for this NPDES permit, is consistent with the information presented in our prior comments and our appeal and supporting documents. As such, we support EPA's decision to remove such pollutant trading from the Twin Falls wastewater treatment plan[t] NPDES permit."

   Response: EPA recognizes the comment supporting the permit modification. No action is required.

8. **Comment:** ICL also said: **"**Several other matters warrant mention at this time.

   <u>TSS Limits</u>

   ICL finds that the interim limits for TSS (both average monthly and average weekly) are far too high and will result in continued contributions to the ongoing violations of water quality for this parameter in the mid-Snake region. As such, EPA should reduce (i.e. make more stringent) the interim TSS limits to ensure achievement of TMDL goals for this area.

   Further, the final TSS limits need to be reduced to reflect the TMDL assigned WLAs for this facility. The WLA for this facility is 146.4 tons/year. However, the application of the proposed average monthly limit results in 178.85 tons/year discharge. [(980 lbs/day x 365 days/year) / 2000lbs/ton = 178.85 tons/year. Thus the discharge limit is not consistent with the assigned WLA.

   <u>Total Phosphorus Limits</u>

   This facility's WLA for total phosphorus is expressed as a maximum pounds per day discharge. To the best of our knowledge this is meant to be strictly interpreted as a limit on the number of pounds of total phosphorus that this facility can discharge on any given day. Thus, the NPDES permit needs to include a "Maximum daily limit" for total phosphorus. This limit should not exceed 710 lbs/day.

The average monthly limit of 710 lbs/day pays homage to the facility's WLA but, since it is a monthly average, it does nothing to ensure that the daily limit of 710 lbs/day is adhered to. This is so because averaging allows for daily discharges that greatly exceed the monthly average of 710 lbs/day, as long as they are compensated for by lower discharges on other days. It is these days that exceed 710 lbs/day that violate the TMDL's wasteload allocation. The average weekly limit of 990 lbs/day does even less to ensure that this facility does not violate its 710 lbs/day WLA as assigned in the relevant TMDL.

These monthly and weekly average limits fail to ensure compliance with the TMDL WLAs and will result in unlawful discharges of TP to the river and cause this segment of river to exceed the target TP concentrations."

Response: The Clean Water Act regulation at 40CFR §122.62 states: "When a permit is modified, only the conditions subject to modification are reopened." The only conditions modified and reopened to public comment during the public comment period, March 29—April 29, 2010, were to not include water quality trading provisions in the Twin Falls permit. Pursuant to 40 C.F.R. § 124.19(d), EPA withdrew Section I.B.1 and Appendix A from NPDES Permit No. ID-002127-0 effective March 2, 2010. Therefore, we find that these additional comments concerning the TSS and total phosphorus limits are outside the scope of the modification. Comments on these permit provisions should have been raised during the comment period of May 15 – July 15, 2009 when the draft permit was open to public review. The commenter did not raise these issues during that comment period, and it is too late to raise them now.

Furthermore, the effluent limitations for Total Phosphorus are in effect and can no longer be challenged. These limits have been in effect since December 23, 2009, in accordance with EPA's November 20, 2009 letter, "Notification of Stayed Permit, City of Twin Falls".

EPA EXHIBIT # 10

ADMINISTRATIVE RECORD # 109

FACT SHEET

Public Comment Period Start Date: March 29, 2010
Public Comment Expiration Date: April 29, 2010

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

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

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Permit No. ID-002127-0

EPA Proposes To Modify NPDES Permit

EPA is seeking public comment on modifying the NPDES permit issued on September 22, 2009 with an effective date of November 1, 2009 to the facility referenced above. The draft modification is a proposal to not include the following permit conditions:

Section I.B.1: Pollutant Trading. The permittee may engage in pollutant trading for average monthly discharges of total phosphorus, pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft). No trading is allowed to adjust discharges to meet average weekly limits or for other pollutants. This permit only authorizes trading with other point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading**.** Trading with non-point sources is not authorized. See Appendix A for details about the requirements for buying and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ).

Appendix A "Pollutant Trading In The Upper Snake Rock Subbasin" on pages 37-39 of the attached proposed permit modification.

The Idaho Conservation League challenged these conditions in a petition for review filed with EPA's Environmental Appeals Board on October 24, 2009. In accordance with federal regulations, EPA subsequently issued a notification withdrawing the conditions, effective March 2, 2010, and stating EPA's intent to seek public comment on a proposed permit modification to not include those provisions in the permit.

State Certification

Section 401 of the federal Clean Water Act requires EPA to seek State certification before issuing a final permit. On September 11, 2009 the Idaho Department of Environmental Quality issued a final Section 401 Water Quality Certification for the reissuance of the City Twin Falls NPDES permit. Since EPA is not including trading provisions and not adding any conditions to the draft permit the September 11 certification still applies.

Basis of Modification

The pollutant trading provisions of the permit allow for trading of total phosphorus. The total phosphorus effluent limits of the permit were developed from the Upper Snake Rock TMDL, approved by EPA in 2000 and modified in 2005. The TMDL serves as the plan to achieve water quality standards in this river segment. A pollutant trading system must be consistent with the assumptions and goals of an established TMDL in order to achieve compliance with the water quality standards. TMDL wasteload allocations are commonly established on the foundation of a mathematical water quality model that takes into account the location, flow, and pollutant concentration of each source. The trading system must fit within the constraints of the TMDL and be consistent with assumptions about how the system functions and how compliance with standards will be evaluated.

The Snake River TMDL is designed to reduce inputs of phosphorus to the river and thereby reduce the growth of aquatic plants. Some TMDLs employ simple mass balance models that assume no loss of the pollutant from the water column. Others employ water quality models that estimate pollutant loss from the water column (through nutrient uptake by aquatic plants, settling of solids, etc.). This uptake is sometimes referred to as "attenuation" of the instream phosphorus concentration or load.

The Snake River TMDL employs a mass balance model with attenuation. A percentage of the instream phosphorus load is assumed to be lost in each segment. The loss term in the TMDL allows higher overall discharges into the river than would be calculated using a mass balance model without attenuation, because the attenuation provides a greater loading capacity to achieve the instream target concentration.

The attenuation factor in the TMDL complicates a pollutant trading system, because it alters the equivalency of phosphorus loading. Since phosphorus discharged is lost over distance, one pound of phosphorus discharge at one location is not equivalent to one pound discharged at another location. In general, a downstream source must purchase more than one pound of upstream load for each pound of allowance it receives. Otherwise, the transfer of allocated loads in the downstream direction will violate the assumptions of the TMDL and potentially exceed the instream target.

The Snake River water quality trading ratios were based on assumptions that did not include attenuation and were set to 1:1 for all trades, which would correspond to an equivalency of phosphorus discharges between locations. The assumptions used to establish the water quality trading ratios are not consistent with the attenuation assumptions of the TMDL. Water quality trading utilizing the 1:1 ratio poses a risk to the water quality improvements called for in the TMDL in this segment of the Snake River. Therefore, EPA has not included the trading mechanism from the Twin Falls permit because of this inconsistency.

Specifically, EPA has determined that Section I.B.1 and Appendix A would have authorized pollutant trading based on trading ratios that are not technically defensible based on the administrative record.

1. The trading ratios are in the "State of Idaho Department of Environmental Quality

Pollutant Trading Guidance" (November 2003 draft). The trading ratios were derived in "Upper Snake Rock Subbasin – Middle Snake River Pollutant Trading Ratios" (IDEQ October 17, 2002). A flow weighted mass balance of surface water inputs, ground water inputs and point source inputs to the Snake River from the Twin Falls Municipality to below the Box Canyon Creek found uniformity or "equity" of phosphorus concentrations throughout the three segments. Based on this uniformity for all areas of these segments a trading ratio of 1:1 was developed for all the segments.

2. The mass balance did not include any attenuation of phosphorus such as settling to the river bottom or plant uptake. However, "The Upper Snake Rock TMDL Modification, Upper Snake Rock Watershed Management Plan – Modification - A Modification of Mid-Snake TMDL and Upper Snake Rock TMDL to Account for the Aquaculture Wasteload Allocation of the Part 1(Fish Production Faculties & Conservation Hatcheries), Part 2 (Fish Processors), and Part 3 (Billingsley Creek Facilities)" IDEQ July 22, 2005 found on page 34 the following total phosphorus percent loss/attenuation:

Compliance Point	Loss/Attenuation
Milner Dam	
Pillar Falls	2.8%
Crystal Springs	32.4%
Box Canyon	18.3%

The percent reduction in phosphorus by attenuation does not support a trading ratio of 1:1 for this reach of the Snake River which was the area where trading was to occur.

3. Idaho Department of Environmental Quality (IDEQ) staff has indicated to EPA its intent to revise the "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) and to produce final guidance.

Description of the Facility

The City of Twin Falls owns and operates a facility that treats wastewater from domestic, industrial, and commercial sources. The facility discharges secondarily treated wastewater throughout the year to the Snake River at approximately river mile 608.5. The discharge is approximately 10 feet from shore and two feet below the surface of the River.

The sewer system consists of separate, municipally-owned sewers that collect sewage from both the City of Twin Falls (population 35,633 (from permit application received in June 2006)) and the City of Kimberly (population 2,672) and treats the collected wastewater at the Twin Falls wastewater treatment plant (WWTP). The WWTP has a design flow rate of 8.56 million gallons per day (mgd) and a peak design flow of 10.92 mgd.

The State of Idaho Water Quality Standards and Wastewater Treatment Requirements (16 IDAPA § 58.01.02) protect the segment of the Snake River to which Twin Falls discharges (HUC 17040212, Upper Snake-Rock Subbasin, segment US-20, Milner Dam to Twin Falls) for the following uses: cold water biota, salmonid spawning, primary contact recreation, agricultural and industrial water supply, wildlife habitat, and aesthetics.

Public Comment

Persons wishing to comment or request a public hearing on the proposed modification to not

include Section I.B.1 and Appendix A in the permit for this facility may do so in writing by the expiration date of the public comment period. 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.

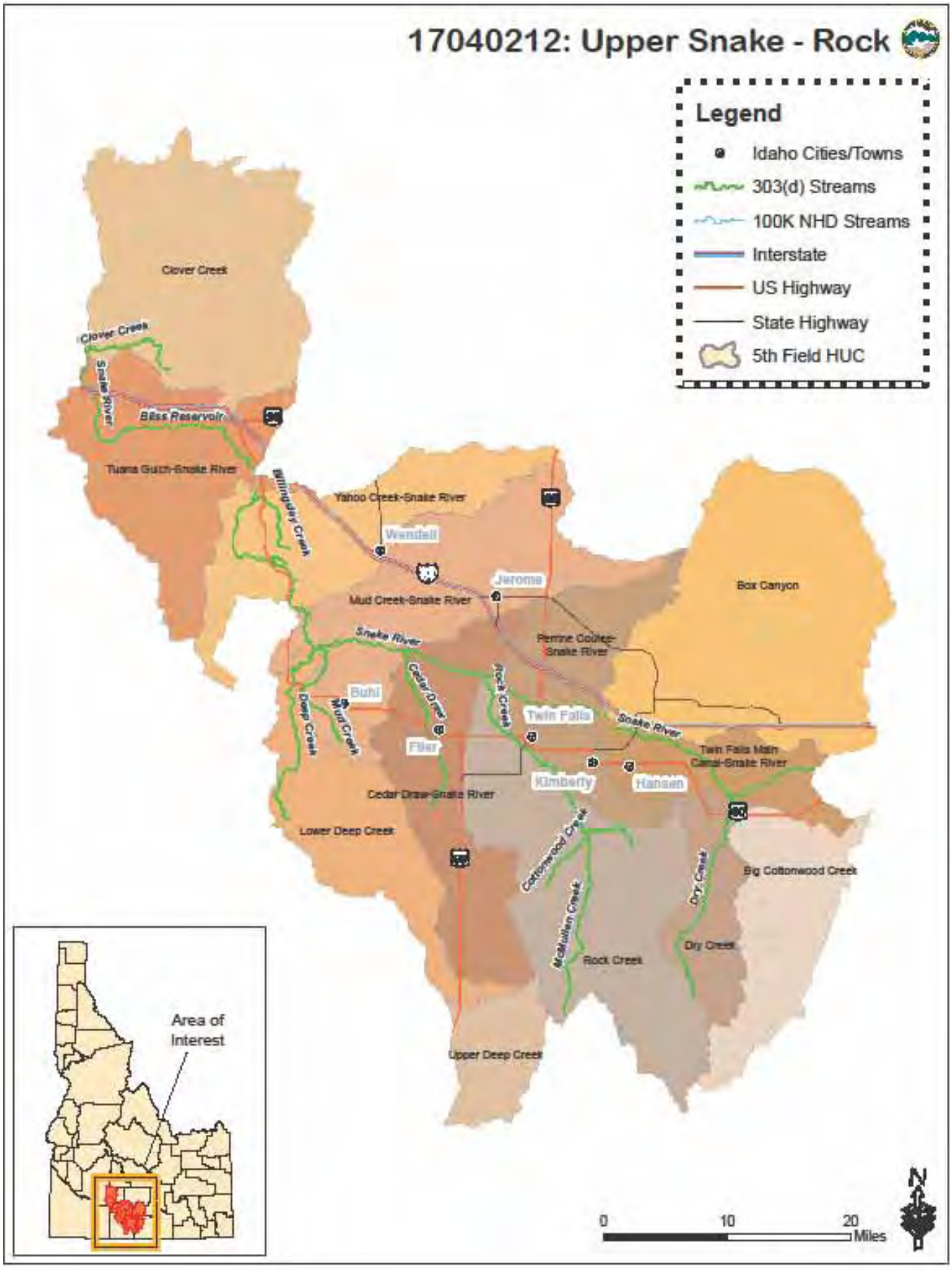
After the public notice period expires, and all comments have been considered, EPA's Regional Director for the Office of Water and Watersheds will make a final decision regarding permit modification. The modification will become effective 30 days after the date of the Regional Director's decision, unless an appeal is submitted to the Environmental Appeals Board within 30 days.

Documents are Available for Review.

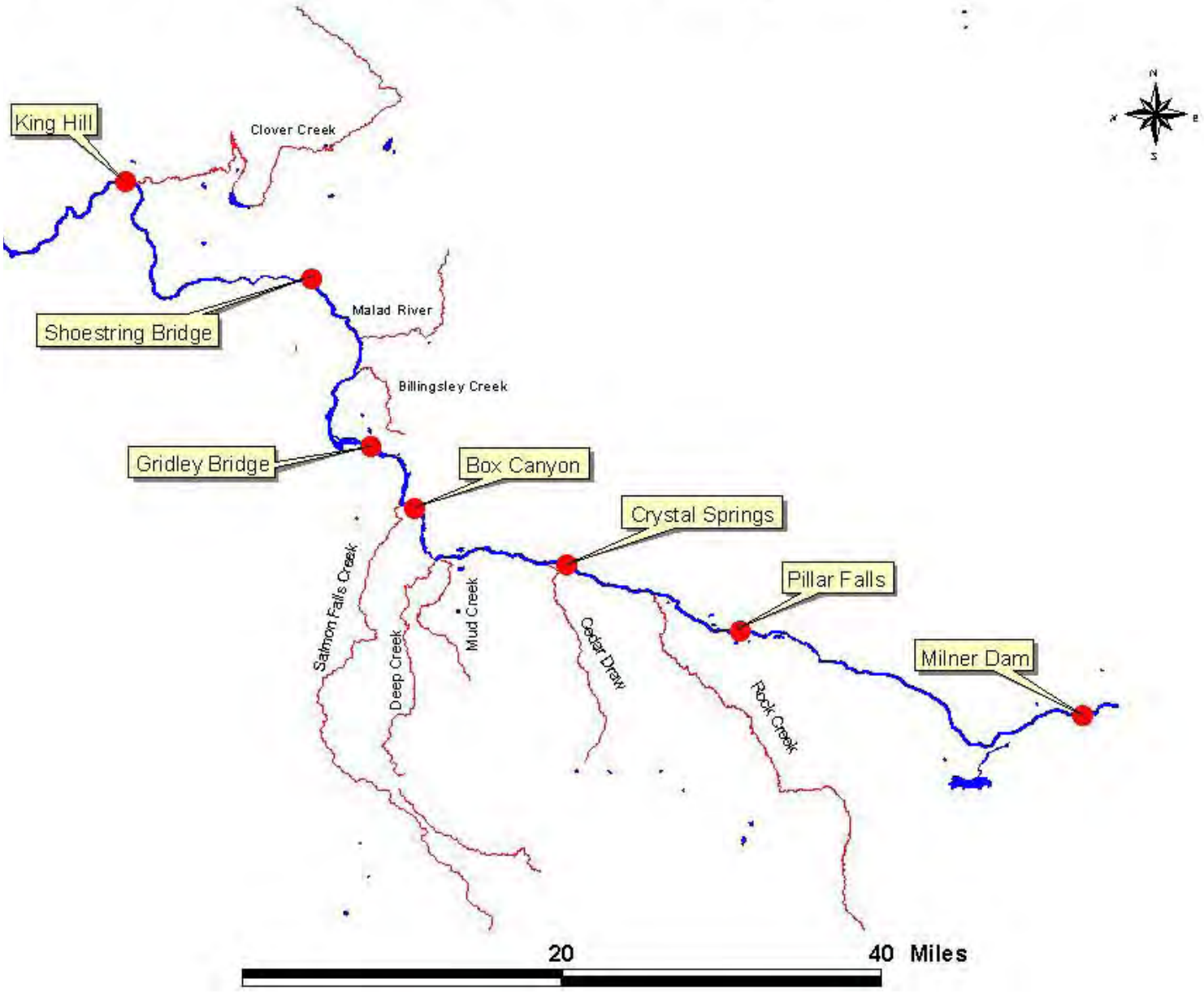
The draft permit and fact sheet are posted on the Region 10 website at http://yosemite.epa.gov/r10/WATER.NSF/NPDES+Permits/DraftPermitsID. Copies may also be requested by writing to EPA at the Seattle address below, by e-mailing washington.audrey@epa.gov, or by calling Audrey Washington at 206-553-0523 or (800) 424-4372 ext 0523 (within Alaska, Idaho, Oregon, & Washington). Copies may also be inspected and copied at the offices below between 8:30 a.m. and 4:00 p.m., Monday through Friday, except federal holidays. In Seattle, visitors report to the 12th floor Public Information Center.

EPA Region 10 1200 Sixth Avenue, Suite 900, OWW-130 Seattle, Washington 98101-3140	(206) 553-0523
EPA Idaho Operations Office 1435 North Orchard Street Boise, Idaho 83706	(208) 378-5746
Idaho Department of Environmental Quality Twin Falls Regional Office 1363 Fillmore Street Twin Falls, ID 83301	(208) 736-2190

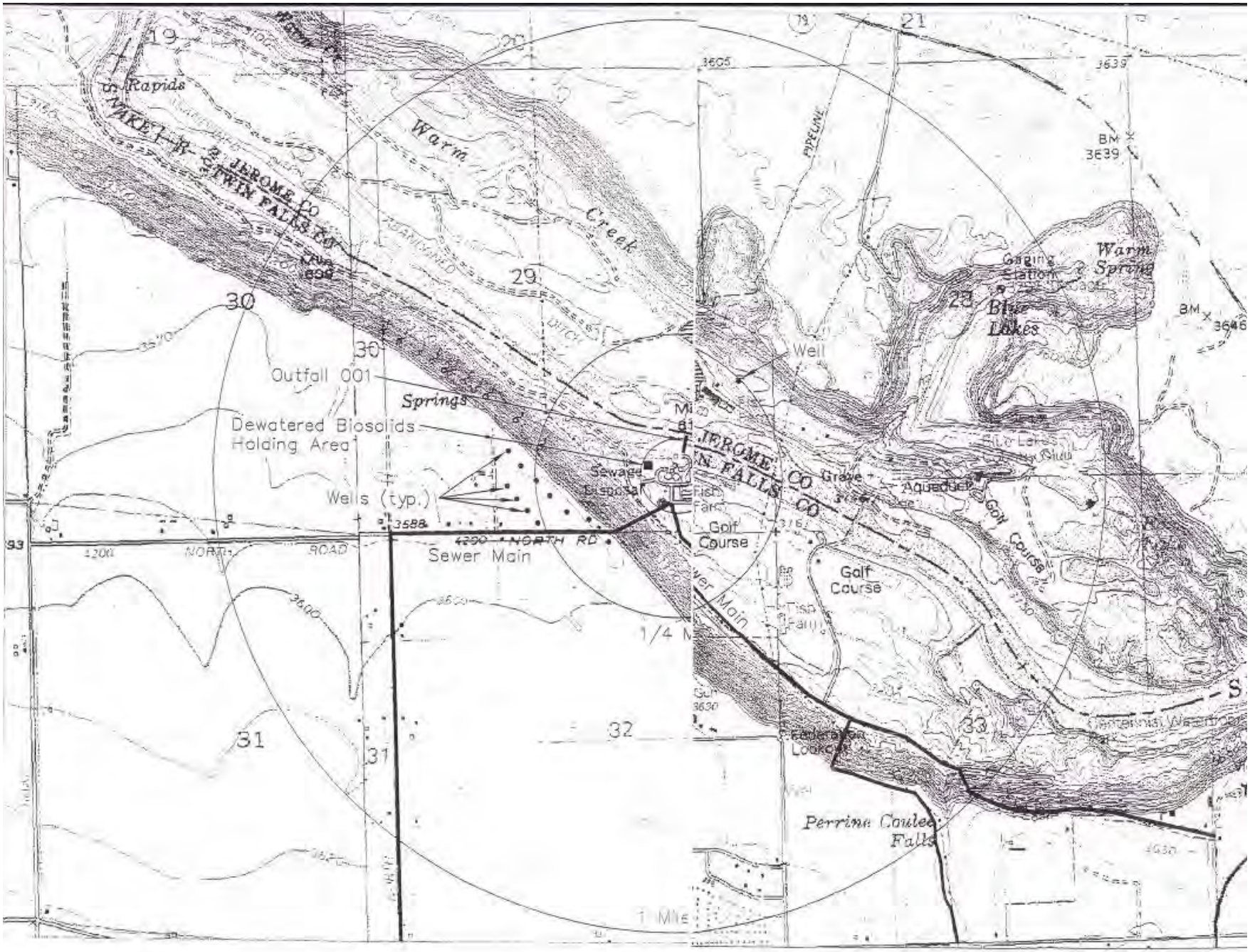
Location Map



Middle Snake River - Segments and Major Tributaries



Outfall Discharge Location



EPA EXHIBIT # 11

ADMINISTRATIVE RECORD # 108

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq*., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

is authorized to discharge from a facility located in Twin Falls, Idaho, at the following location:

Outfall	**Receiving Water**	**Latitude**	**Longitude**
001	Snake River	42^0 36' 36" N	114^0 29' 06 W

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective **November 1, 2009**

This permit and the authorization to discharge shall expire at midnight, **October 31, 2014.**

The permittee shall reapply for a permit reissuance on or before **May 4, 2014**, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 22nd day of September, 2009,

/s/ Christine Psyk for
Michael A. Bussell, Director
Office of Water and Watersheds

Table of Contents

List of Tables

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be postmarked by the 10th day of the month. (see §III.B)
2. Surface Water Monitoring & Stream Flow Data Report	Surface water monitoring results and stream flow data for the calendar year must be submitted no later than January 31 of the following year. (see §§I.E.6 & 7)
3. Compliance Schedule for Total Suspended Solids	Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule for total suspended solids must be submitted no later than 30 days after the schedule date. Due dates: July 31, 2010; July 31, 2011; July 31, 2012; July 1, 2013; and July 31, 2014. (see § I.C)
4. Quality Assurance Plan (QAP)	The permittee must provide EPA and Idaho Department of Environmental Quality (IDEQ) with written notification that the Quality Assurance Plan has been developed and implemented within 90 days after the effective date of the final permit (see §II.C.). The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.C)
5. Toxicity Reduction Evaluation Plan	The permittee must submit to EPA a copy of its TRE workplan within 90 days after the effective date of this permit. (see §I.C.5.a)
6. Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the Operations and Maintenance Plan has been developed or updated and is being implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.B)
7. Best Management Practices (BMP) Plan	The permittee must provide EPA and IDEQ with written notification that the Plan has been updated and implemented within 180 days after the effective date of the final permit. The Plan must be kept on site and made available to EPA and IDEQ upon request. (see §II.D)
8. Local Limits Evaluation	Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation. (See §II.A.5)

Item	Due Date
9. Whole Effluent Toxicity Test Results	WET test results are due with the DMRs for April and October, i.e., postmarked by May 10 and November 10, respectively. They should also be submitted with the next permit application. (See § I.D.7)
10. Expanded Effluent Test Results	Expanded effluent test results are due with the DMRs for April or October, i.e., postmarked by May 10 or by November 10, respectively, in the 2nd, 3rd, and 4th years of the permit term. They should also be submitted with the next permit application. (See § I.B)
11. Pretreatment Report	The permittee must submit a pretreatment report annually by November 1. This report will cover the period of October 1 of the previous year to September 30 of the current year. (See §II.A.9)
12. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone to (206) 553-1846 within 24 hours after the time the permittee becomes aware of the circumstances including exceedances of the maximum instantaneous limit for *E. coli* and the maximum daily limit for ammonia. (See § III.G)
13. Emergency Response and Public Notification Plan	The permittee must submit written notice to EPA and IDEQ that an overflow emergency response and public notification plan has been developed and implemented within 180 days after the effective date of the final permit. (See § II.E)
14. NPDES Application Renewal	The application must be submitted at least 180 days before the expiration date of the final permit. (see §V.B)

I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfall specified herein to the Snake River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring Requirements

~~1. Pollutant Trading.~~

~~The permittee may engage in pollutant trading for average monthly discharges of total phosphorus, pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft). No trading is allowed to adjust discharges to meet average weekly limits or for other pollutants. This permit only authorizes trading with other point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading. Trading with non-point sources is not authorized. See Appendix A for details about the requirements for buying and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ).~~

~~2~~.1. Effluent Limitations.

The permittee must limit and monitor discharges from outfall 001 as specified in Table 1, below. All limits represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times, unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

See notes at the end of the table.

Table 1

Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations			Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Flow, mgd	---	---	---	Effluent	Continuous	Recording
Biochemical Oxygen Demand (BOD_5)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite
	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day	3,213 lbs/day	---	Effluent	4/week	Calculation[3]
Total Suspended Solids (TSS)	30 mg/L	45 mg/L	---	Influent and Effluent[1]	4/week	24-hour composite

Table 1

Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations			Monitoring Requirements		
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
TSS (cont.)	≥85% removal	---	---	---	---	Calculation[2]
	2,142 lbs/day[4]	3,213 lbs/day[4]	--	Effluent	4/week	Calculation[3]
	980 lbs/day[5]	1,390 lbs/day[5]	---	Effluent	4/week	Calculation[3]
E. coli Bacteria	126 colonies/ 100 mL[6]	---	406 colonies/ 100 mL[7]	Effluent	5/month[8]	Grab
pH	6.5 – 9.0			Effluent	1/day	Grab
Total Phosphorus	710 lbs/day	990 lbs/day	---	Effluent	1/week	24-hour composite
Total Ammonia as N (5/1 – 9/30)	3.8 mg/L	---	5.4 mg/L	Effluent	1/week	24-hour composite
	247 lbs/day	---	351 lbs/day	Effluent	1/week	Calculation[3]
Total Ammonia as N (10/1– 4/30)	5.2 mg/L	---	7.5 mg/L	Effluent	1/week	24-hour composite
	338 lbs/day	---	488 lbs/day	Effluent	1/week	Calculation[3]
Temperature	--	--	--	Influent & Effluent	continuous[9]	Recording
Nitrate-Nitrogen[10]	---	---	---	Effluent	1/week	24-hour composite
Total Kjeldahl Nitrogen[11]	---	---	---	Effluent	1/week	24-hour composite
Whole Effluent Toxicity	---	---	---	Effluent	2/year [11]	24-hour composite
Expanded Effluent Testing[12]	--	--	--	Effluent	1 each in 2nd, 3rd, & 4th years of the permit[13]	24-hr composite

[1] Influent and effluent composite samples shall be collected during the same 24-hour period.
[2] Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.
[3] Loading is calculated by multiplying the concentration (mg/L) by the flow (mgd) on the day sampling occurred and a conversion factor of 8.34.
[4] The interim mass based limits for TSS apply until the facility achieves compliance with the final limits, but no later than June 30, 2014; see §I.C, below.
[5] The final mass based limits for TSS apply as soon as possible but no later than June 30, 2014; see §I.C, below.

[6] The monthly average for *E. coli* is the geometric mean of all samples taken during the month.
[7] This is an instantaneous maximum limit, applicable to each grab sample without averaging.
[8] Five samples taken every three (3) to seven (7) days over a thirty (30) day period.
[9] Continuous temperature monitoring means recording temperature in 1 hour intervals, 24 hours per day.
[10] If analyses are showing non-detect, the method detection limits in Table 3 must be achieved.
[11] in April and October
[12] See NPDES Permit Application Form 2A, Part D for the list of pollutants to include in this testing.
[13] Expanded effluent testing must occur on the same day as a whole effluent toxicity test and must be submitted with the WET test results with the next DMR as well as with the next permit application.

~~3.~~2. The permittee must report within 24 hours to EPA at (206) 553-1846 any violation of the maximum daily limit for ammonia or of the instantaneous maximum limit for *E. coli*. The permittee must report violations of all other effluent limits at the time that discharge monitoring reports are submitted (See §III.B and §III.G, below).

~~4.~~3. The permittee must not discharge any floating solids, visible foam in other than trace amounts, or oily wastes that produce a sheen on the surface of the receiving water.

~~5.~~4. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.

~~6.~~5. Reporting Low Results.

a) For all effluent monitoring, the permittee must use methods that can achieve a minimum level (ML) less than the effluent limitation. The minimum level is defined as 3.18 × method detection limit (MDL); see Table 3 below for MDLs. For parameters that do not have effluent limitations, the permittee must use methods that can achieve MDLs less than or equal to those specified in Table 3.

b) For purposes of reporting on the Discharge Monitoring Report (DMR) for a single sample, if a value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if a value is less than the ML, the permittee must report "less than {numeric value of the ML}."

c) For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report "less than {numeric value of the MDL}" and if the average value is less than the ML, the permittee must report "less than {numeric value of the ML}." If the average value is equal to or greater than the ML, the permittee must report the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Compliance Schedule for Total Suspended Solids

1. The permittee must comply with all effluent limitations and monitoring requirements in Table 1, above, beginning on the effective date of this permit, except those for which a compliance schedule is specified in § I.C.2, below.

2. A schedule of compliance is authorized for achieving compliance with the final mass-based limits for Total Suspended Solids. The permittee must achieve compliance with the final mass-based effluent limitation for Total Suspended Solids set forth in Table 1 of this permit as soon as possible, but not later than July 1, 2014.

3. While the schedule of compliance specified in § I.C.2 is in effect, the permittee must:

a) meet the concentration-based and interim mass-based effluent limits and the minimum removal rate required in Table 1; and

b) meet the milestones listed in §I.C.5, below.

4. Interim Requirements for the Schedule of Compliance

a) By July 1, 2010, the permittee must complete the Chemical Enhancement Primary Treatment (CEPT);.

b) By July 1, 2011, the permittee must develop a facility plan to achieve the final TSS mass limits;

c) By July 1, 2012, the permittee must select a design alternative and bid to begin construction to achieve final TSS mass effluent limitations;

d) By July 1, 2013, the permittee must report on progress toward achieving final compliance by July 1, 2014;

e) By July 1, 2014, the permittee must complete start-up and optimization of its chosen design alternative and achieve compliance with the final TSS mass-based effluent limitations of Table 1 of the permit.

5. The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the total suspended solids mass effluent limitations. The annual Report of Progress must be submitted by July 31, 2010, and annually thereafter, except that the 2013 report is due on July 1, until compliance with the final TSS mass effluent limits is achieved. See also Part III.J., "Compliance Schedules". At a minimum, the annual report must include:

a) An assessment of the previous year of TSS effluent data and comparison to the TSS interim and final mass effluent limitations.

b) A report on progress made towards meeting the TSS mass effluent limitations, including the applicable deliverable required under §I.C.4, above.

c) Further actions and milestones targeted for the upcoming year.

D. Whole Effluent Toxicity Testing Requirements

The permittee must conduct chronic toxicity tests on effluent samples from outfall 001. Testing must be conducted in accordance with subsections 1 through 7, below.

1. Toxicity testing must be conducted on 24-hour composite samples of effluent. In addition, a split of each sample collected must be analyzed for the chemical and physical parameters required in § I.B, above. When the timing of sample collection coincides with that of the sampling required in § I.B, analysis of the split sample will fulfill the requirements of § I.B as well.

2. Chronic Test Species and Methods

a) Chronic tests must be conducted twice per year, once in April and once in October concurrently with the pretreatment sampling for metals and, when applicable, concurrently with expanded effluent testing.

b) The permittee must conduct short-term tests with the water flea, Ceriodaphnia dubia (survival and reproduction test), and the fathead minnow, Pimephales promelas (larval survival and growth test), for the first three suites of tests. After this screening period, monitoring must be conducted using the most sensitive species. Chronic toxicity testing requires a fresh sample every other day (day 1, 3, 5). The effluent data must be obtained

from the composite sample used for day 1 toxicity tests. Toxicity test samples for days 1, 3 and 5 will be analyzed for BOD5, TSS, E. coli, alkalinity, ammonia, conductivity, dissolved oxygen, hardness, pH, and temperature.

c) The presence of chronic toxicity must be determined as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.

d) Results must be reported in TUc (chronic toxic units), TUc = 100 / IC25. If acute toxicity (lethality) is noted during the chronic test, the permittee must report the LC_{50} also.

3. Toxicity Triggers

a) Chronic Toxicity Trigger. If the results of the chronic toxicity test exceed 4 TU_c, the results show chronic toxicity, and the permittee must conduct accelerated toxicity testing. See § C.4, below.

b) Acute Toxicity Trigger. If acute toxicity is demonstrated and the LC_{50} is higher than 3.85 TU_a, the permittee must conduct accelerated toxicity testing. See § C.4, below.

4. Accelerated testing

a) If the chronic testing result exceeds 4.0 TUc, or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a, the permittee must conduct six more tests, at two week intervals over the following twelve-week period, beginning within two weeks of receipt of the sample results that exceed the trigger levels.

b) If chronic toxicity exceeds 4.0 TU_c or if acute toxicity is demonstrated during the chronic test and LC_{50} is higher than 3.85 TU_a in any of the six additional tests, the permittee must develop and initiate a Toxicity Reduction Evaluation (TRE) workplan, as described in § E.5, below.

c) If none of the six tests required under this section indicates toxicity, the permittee may return to the normal testing frequency.

5. Toxicity Reduction Evaluation (TRE)

a) TRE Workplan Development.

The permittee must submit to EPA a copy of its TRE workplan [1-2 pages] within 90 days after the effective date of this permit. This plan must describe the steps the permittee intends to follow in the event that whole effluent toxicity testing shows statistically significant toxicity at the dilution that corresponds to that anticipated at the edge of the chronic mixing zone (4:1) and should include at a minimum:

i) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

ii) A description of the facility's strategy for maximizing in-house treatment efficiency and employing good housekeeping practices;

iii) A list of all chemicals used in the operation of the facility; and

iv) A discussion about who will conduct a toxicity identification evaluation (TIE) (i.e., in-house or other) if one is necessary.

b) TRE Workplan Implementation.

i) The TRE workplan is implemented if whole effluent toxicity testing shows toxicity

greater than exceeds 4 TU_c or 3.85 TU_a.

ii) Accelerated testing required in § I.D.4 is considered part of the first step of implementing the TRE.

iii) The permittee must begin implementing the TRE within thirty (30) days after receipt of the accelerated testing sample results in excess of trigger levels. The permittee may use *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, EPA/833-B-99-002, August 1999, in developing a TRE workplan.

6. Quality Assurance

The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger (i.e. 25%); two dilutions above the RWC, and two dilutions below the RWC.

a) All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, EPA/821-R-02-013, October 2002, and individual test protocols.

b) In addition to those quality assurance measures specified in the methodology, the following quality assurance procedures must be followed:

(i) If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as the effluent toxicity tests.

(ii) If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days after receipt of the test results.

(iii) Control and dilution water must be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water must also be used. Receiving water may be used as control and dilution water upon notification of EPA and IDEQ. In no case may water that has not met test acceptability criteria be used for either dilution or control.

7. Reporting

a) Results of toxicity tests, including any accelerated testing conducted during the month, must be reported on the next Discharge Monitoring Report (DMR) after receiving the results of the test and with the next permit application.

b) The permittee must attach to the DMR a report that includes: (1) the toxicity test results; (2) the dates of sample collection and initiation of each toxicity test; (3) the flow rate at the time of sample collection; and (4) the results of the effluent analysis for chemical parameters including expanded effluent testing required for the outfall as defined in §I.B.~~2~~1.

c) The permittee must report test results for chronic tests in accordance with the guidance in the chapter on "Report Preparation and Test Review" found in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (the "manual"), Fourth Edition, EPA/821-R-02-013, October 2002.

E. Surface Water Monitoring Requirements

The permittee must conduct surface water monitoring in each calendar quarter of the year as indicated in Table 2, below.

1. Pollutant and water quality parameter monitoring locations

   a) Pollutant and water quality parameter monitoring must be conducted in the Snake River at monitoring stations approved by IDEQ. These monitoring points must be:

      (i) One upstream of the influence of the facility's discharge, and

      (ii) For selected pollutants and parameters, one downstream of the facility's discharge, at a point where the effluent and the Snake River are completely mixed.

   b) The permittee must seek approval from IDEQ for any changes to the surface water monitoring stations. A failure to obtain IDEQ approval of surface water monitoring stations does not relieve the permittee of the surface water monitoring requirements of this permit.

2. Sample Collection

   a) To the extent practicable, surface water sample collection must occur on the same day as effluent sample collection.

   b) All surface water samples must be grab samples.

3. Flow measurement

The flow rate must be recorded at least at the same time that other surface water parameters are sampled. See also §I.E.7, below, for the compliance schedule for establishing a stream gage.

4. Sample Analysis

Samples must be analyzed for the parameters listed in Table 2 and must achieve the method detection limits (MDLs) shown in Table 3, unless results consistently exceed a higher MDL for another approved method, in which case, that method may be used.

See notes on next page.

Table 2

Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Flow	mgd	daily Upstream	gage
TSS	mg/L	4/year[14] Upstream	Grab
E. coli bacteria	colonies/100 mL	4/year[14] Upstream	Grab
Dissolved oxygen	mg/L	4/year[14] Upstream	Grab
pH	standard units	4/year[14] Upstream and Downstream	Grab
Temperature	°C	4/year[14] Upstream and Downstream	Grab
Total ammonia as N	mg/L	4/year[14] Upstream and Downstream	Grab
Total Nitrate as N	mg/L	4/year[14] Upstream	Grab

Table 2
Surface Water Monitoring Requirements

Parameter	Units	Sampling Frequency	Sample Type
Total Nitrite as N	mg/L	4/year[14] Upstream	Grab
Total Phosphorus as P	mg/L	4/year[14] Upstream	Grab
Arsenic	mg/L	4/year[14] Upstream	Grab[15]
Cadmium	mg/L	4/year[14] Upstream	Grab[15]
Chromium	mg/L	4/year[14] Upstream	Grab[15]
Copper	mg/L	4/year[14] Upstream	Grab[15]
Cyanide	mg/L	4/year[14] Upstream	Grab[15]
Lead	mg/L	4/year[14] Upstream	Grab[15]
Mercury	mg/L	4/year[14] Upstream	Grab[15]
Nickel	mg/L	4/year[14] Upstream	Grab[15]
Silver	mg/L	4/year[14] Upstream	Grab[15]
Zinc	mg/L	4/year[14] Upstream	Grab[15]
Molybdenum	mg/L	4/year[14] Upstream	Grab[15]
Selenium	mg/L	4/year[14] Upstream	Grab[15]
Hardness	mg/L	4/year[14] Upstream	Grab

[14] 4/year means once in each calendar quarter.
[15] Arsenic, cadmium, chromium, copper, cyanide, lead, nickel, silver, zinc, molybdenum, and selenium must be analyzed as dissolved. Mercury must be analyzed as total.

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Flow	---
TSS	---
E. coli Bacteria	---
Dissolved Oxygen	2.0
pH	---

Table 3
Method Detection Limits

Parameter	MDL (mg/L)
Temperature	---
Total Ammonia as N	0.01
Total Kjeldahl Nitrogen	0.05
Total Nitrate as N	0.02
Total Nitrite as N	0.01
Total Phosphorus as P	0.01
Arsenic	0.0005
Cadmium	0.00005
Chromium	0.0001
Copper	0.0005
Cyanide	0.005
Lead	0.0006
Mercury	0.0002
Nickel	0.0005
Silver	0.0001
Zinc	0.0018
Molybdenum	0.0003
Selenium	0.0006
Hardness (as $CaCO_3$)	0.001

5. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under § II.C, "Quality Assurance Plan."

6. Surface water monitoring results for the previous calendar year must be submitted to EPA by January 31of each year. At a minimum, the report must include the following:

   a) Dates of sample collection and analyses.

   b) Results of sample analysis.

   c) Relevant quality assurance/quality control (QA/QC) information.

7. Reporting Stream Flow Data from the Stream Gage in the Snake River at Twin Falls

   a) The permittee must record daily flows in the Snake River at the established stream gage.

b) By January 31 of each year, the permittee must submit to EPA streamflow data for the previous calendar year.

II. Special Conditions

A. Pretreatment Requirements

1. Implementation

The permittee must implement its pretreatment program in accordance with the legal authorities, policies, procedures, staffing levels and financial provisions described in its original approved pretreatment program submission, any program amendments submitted thereafter and approved by EPA, and the general pretreatment regulations (40 CFR Part 403) and any amendments thereof. At a minimum, the permittee must carry out the following activities:

a) Enforce prohibitive discharge standards as set forth in 40 CFR §403.5(a) and (b), categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Act (where applicable), and local limitations and BMPs developed by the permittee in accordance with 40 CFR §403.5(c), whichever are more stringent and are applicable to non-domestic users discharging wastewater into the permittee's collection system. Locally derived limitations must be defined as pretreatment standards under Section 307(d) of the Act.

b) Implement and enforce the requirements of the most recent and EPA-approved portions of local law and regulations (e.g. municipal code, sewer use ordinance) addressing the regulation of non-domestic users.

c) Update its inventory of non-domestic users at a frequency and diligence adequate to ensure proper identification of non-domestic users subject to pretreatment standards, but no less than once per year. The permittee must notify these users of applicable pretreatment standards in accordance with 40 CFR §403.8(f)(2)(iii).

d) Issue, reissue, and modify, in a timely manner, industrial wastewater discharge permits to at least all Significant Industrial Users (SIUs) and categorical industrial users. These documents must contain, at a minimum, conditions identified in 40 CFR §403.8(f)(1)(iii), including Best Management Practices, if applicable. The permittee must follow the methods described in its implementation procedures for issuance of individual permits.

e) Develop and maintain a data management system designed to track the status of the permittee's non-domestic user inventory, non-domestic user discharge characteristics, and their compliance with applicable pretreatment standards and requirements. The permittee must retain all records relating to its pretreatment program activities for a minimum of three years, as required by 40 CFR §403.12(o), and must make such records available to EPA upon request. The permittee must also provide public access to information considered effluent data under 40 CFR Part 2.

f) Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by non-domestic users within these jurisdictions. These contracts or agreements must identify the agency responsible for the various implementation and enforcement activities in the contributing jurisdiction. In addition, the permittee may be required to develop a Multi-Jurisdictional Agreement (MJA) that outlines the specific roles, responsibilities and pretreatment activities of each jurisdiction.

g) Carry out inspections, surveillance, and monitoring of non-domestic users to determine compliance with applicable pretreatment standards and requirements. A complete inspection of all SIUs and sampling of all SIUs' effluent must be conducted at least annually.

h) Require SIUs to conduct wastewater sampling as specified in 40 CFR §403.12(e) or (h). Frequency of wastewater sampling by the SIUs must be appropriate for the character and volume of the wastewater but no less than twice per year. Sample collection and analysis must be performed in accordance with 40 CFR §403.12(b)(5)(ii) through (v) and 40 CFR Part 136. In cases where the Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the permittee must require the User to submit documentation to determine compliance with the Standard. If the permittee elects to conduct all non-domestic user monitoring for any SIU instead of requiring self-monitoring, the permittee must conduct sampling in accordance with the requirements of this paragraph, and the requirements of 40 CFR §403.12(g)(2).

i) Enforce and obtain remedies for any industrial user noncompliance with applicable pretreatment standards and requirements. This must include timely and appropriate reviews of industrial reports to identify all violations of the user's permit, the local ordinance, and federal pretreatment standards and requirements. Once violations have been uncovered, the permittee must take timely and appropriate action to address the noncompliance. The permittee's enforcement actions must follow its EPA-approved enforcement response procedures.

j) Publish, at least annually, in a newspaper or newspapers of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW, a list of all non-domestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR §403.8 (f)(2)(viii).

k) Maintain adequate staff, funds and equipment to implement its pretreatment program.

l) Conduct an analysis annually to determine whether influent pollutant loadings are approaching the maximum allowable headworks loadings calculated in the permittee's most recent local limits calculations. Any local limits found to be inadequate by this analysis must be revised. The permittee may be required to revise existing local limits or develop new limits if deemed necessary by EPA.

2. Spill Prevention and Slug Discharges

The permittee must implement an accidental spill prevention program to reduce and prevent spills and slug discharges of pollutants from non-domestic users.

a) Control mechanisms for SIUs must contain requirements to control slug discharges if determined by the POTW to be necessary [40 CFR §403.8(f)(1)(iii)(B)(6)].

b) SIUs must be evaluated for the need for a plan or other action to control slug discharges within 1 year of being designated an SIU.

c) SIUs must notify the POTW immediately of any changes at their facilities affecting the potential for a slug discharge [40 CFR §403.8(f)(2(vi)].

3. Enforcement Requirement

Whenever EPA finds, on the basis of any available information, that the owner or operator of any source is introducing a pollutant into the POTW in violation of national pretreatment standards, including prohibited discharges, local limits, or categorical standards, or is causing interference or pass through, EPA may notify the owner or operator of the POTW of such violation. If, within 30 days after EPA sends such notification to the POTW, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action under the authority provided in Section 309(f) of the Clean Water Act.

4. Modification of the Pretreatment Program

If the permittee elects to modify any components of its pretreatment program, it must comply with the requirements of 40 CFR §403.18. No substantial program modification, as defined in 40 CFR §403.18(b), may be implemented prior to receiving written authorization from EPA.

5. Local Limits Evaluation

Within one year after the effective date of the final permit, the permittee must submit to EPA a complete local limits evaluation pursuant to 40 CFR §403.5(c)(1). The study must take into account water quality in the receiving stream, inhibition levels for biological processes in the treatment plant, and sludge quality goals. The study must address at least the following pollutants: arsenic, 5-day biochemical oxygen demand, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, total suspended solids, and zinc and any other pollutants of concern. The permittee must address total ammonia as N if the POTW accepts non-domestic discharges of ammonia. Submitted results of the study must include proposed local limits, maximum allowable headworks loadings, all supporting calculations, and all assumptions.

6. Control of Undesirable Pollutants

The permittee must not allow introduction of the following pollutants into the publicly owned treatment works (POTW):

a) Pollutants which will create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140º F or 60º C using the test methods specified in 40 CFR §261.21;

b) Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0, unless the POTW is designed to accommodate such discharges;

c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW (including the collection system) resulting in interference;

d) Any pollutant, including oxygen demanding pollutants (e.g. BOD_5, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e) Heat in amounts which inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40º C (104º F) unless the Regional Administrator, upon request of the POTW, approves alternate temperature limits;

f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h) Any trucked or hauled pollutants, except at discharge points designated by the POTW.

7. Requirements for Industrial users

The permittee must require any industrial user of its treatment works to comply with any applicable requirements in 40 CFR Parts 403 through 471.

8. Sampling Requirements

a) Parameters: The permittee must sample influent and effluent from the POTW for arsenic, cadmium, chromium, copper, cyanide, lead, mercury, molybdenum, nickel, selenium, silver, and zinc. Metals must be analyzed and reported as total metals. If the POTW accepts ammonia from industrial sources, the permittee must also sample the POTW influent and effluent for ammonia. The permittee must sample sludge for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, percent solids, selenium and zinc.

b) Frequency: Sampling must be conducted twice per year: once in April and once in October.

c) Sampling Locations and Sample Type: The permittee must sample as described in Table 4. To the extent that the timing of effluent sampling coincides with sampling required for whole effluent toxicity testing under paragraph insert paragraph number, these results will satisfy the requirements of that paragraph.

Table 4

Pretreatment Monitoring Requirements

Wastestream	Sample Type	Frequency
Influent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Effluent	24-hour Composite[1]	3 days within a week (Mon - Fri)
Sludge	Grab	Once, during the same time period that influent and effluent samples are being taken

1. Influent and effluent samples for cyanide must be collected and analyzed as required in paragraph.8.h of this part.

d) Analytical Methods: For influent and effluent pretreatment sampling, the permittee must use EPA-approved analytical methods that achieve the method detection limits (MDLs) in Table 3, above, unless higher minimum detection limits are approved by EPA. Requests for higher MDLs for pretreatment monitoring must be submitted in writing to the Pretreatment Coordinator at the address in paragraph 9, below.

e) Sludge Sampling: Sludge samples must be taken as the sludge leaves the dewatering device or digesters.

f) Sludge Reporting: Metals concentrations in sludge must be reported in mg/kg, dry weight.

g) Reporting Results: Analytical results for each day's samples must be reported separately. Sample results must be submitted with the pretreatment annual report required in § II.A.9, below.

h) Cyanide sampling: Influent and effluent sampling for cyanide must be conducted as follows. Eight discrete grab samples must be collected over a 24-hour day. Each grab sample must be at least 100 ml. Each sample must be checked for the presence of chlorine and/or sulfides prior to preserving and compositing (refer to Standard Methods, 4500-CN B). If chlorine and/or sulfides are detected, the sample must be treated to remove any trace of these parameters. After testing and treating for the interference compounds, the pH of each sample must be adjusted, using sodium hydroxide, to 12.0 standard units. Each sample can then be composited into a larger container which has been chilled to 4 degrees Celsius, to allow for one analysis for the day.

9. Pretreatment Report

a) The permittee must submit an annual report pursuant to 40 CFR §403.12(i) that describes the permittee's pretreatment program activities over the period October 1 of the previous year to September 30 of the current year. This report must be submitted to the following address no later than November 1 of each year:

Pretreatment Coordinator
U.S. Environmental Protection Agency
Region 10, OWW-130
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

b) The pretreatment report must be compiled following the Region 10 Annual Report Guidance. At a minimum, the report must include:

(i) An updated non-domestic user inventory, including those facilities that are no longer discharging (with explanation), and new dischargers, appropriately categorized and characterized. Categorical users should have the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.

(ii) Results of wastewater and sludge sampling at the POTW as specified in Part II.A.8 (above).

(iii) Calculations of removal rates for each pollutant for each day of sampling.

(iv) An analysis and discussion of whether the existing local limitations in the permittee's sewer use ordinance continue to be appropriate to prevent treatment plant interference and pass through of pollutants that could affect water quality or sludge quality. This should include a comparison between influent loadings and the most recent relevant maximum allowable headworks loadings calculated for the treatment plant.

(v) Status of program implementation, including:

(a) Any planned modifications to the pretreatment program that have been approved by EPA, including staffing and funding updates.

(b) A description of any interference, upset, or NPDES permit violations experienced at the POTW which were directly or indirectly attributable to non-domestic users, including:

(01) Date & time of the incident

(02) Description of the effect on the POTW's operation

(03) Effects on the POTW's effluent and biosolids quality

(04) Identification of suspected or known sources of the discharge causing the upset

(05) Steps taken to remedy the situation and to prevent recurrence

(vi) Listing of non-domestic users inspected and/or monitored during the report year with dates and an indication compliance status.

(vii) Listing of non-domestic users planned for inspection and/or monitoring for the coming year along with associated frequencies.

(viii) Listing of non-domestic users whose permits have been issued, reissued, or modified during the report year along with current permit expiration dates.

(ix) Listing of non-domestic users notified of promulgated pretreatment standards and/or local standards during the report year as required in 40 CFR §403.8(f)(2)(iii).

(x) Listing of non-domestic users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing must include the final date of compliance for each facility.

(xi) Status of enforcement activities including:

(a) Listing of non-domestic users who failed to comply with applicable pretreatment standards and requirements, including:

(01) Summary of the violation(s).

(02) Enforcement action taken or planned by the permittee.

(03) Present compliance status as of the date of preparation of the pretreatment report.

(b) Listing of those users in significant noncompliance during the report year as defined in 40 §CFR 403.8(f)(2)(viii) and a copy of the newspaper publication of those users' names.

(c) EPA may require more frequent reporting on those users who are determined to be in significant noncompliance.

B. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E of this permit (Proper Operation and Maintenance), within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that an operations and maintenance plan for the wastewater treatment facility has been developed and implemented. The plan shall be retained on site and made available on request to EPA and IDEQ.

C. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. Any existing QAPs may be modified for compliance under this section. The QAP must be completed within 90 days after the effective date of the final permit. Within 90 days after the

effective date of the permit, the permittee must provide written notice to EPA and IDEQ that the QAP has been developed or updated and is being implemented.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.

2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.

3. At a minimum, the QAP must include the following:
   a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
   b) Map indicating the location of each sampling point.
   c) Qualification and training of personnel.
   d) Name, address and telephone number of the laboratory used by or proposed to be used by the permittee.

4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.

5. Copies of the QAP must be kept on site and made available to EPA and/or IDEQ upon request.

D. Best Management Practices Plan

1. The permittee must maintain and update as needed the Best Management Practices Plan (BMP Plan), which was implemented under the last permit.

2. Within 180 days after the effective date of the final permit, the permittee must provide written notice to EPA and IDEQ that the BMP plan has been updated and is being implemented.

3. The BMP Plan must be retained on site and made available to EPA and IDEQ upon request.

4. The BMP Plan must include pollution prevention measures which prevent, or minimize, the potential for the release of nutrients to the Middle Snake River. The BMP must be consistent with the Municipal Industry Management Actions of the Middle Snake River Watershed Management Plan (Table 30). The description of management controls must address, to the extent practicable, the following minimum components:
   a) Research, develop and implement a public information and education program;
   b) Water conservation;
   c) Land application of treated effluent;
   d) Land application of biosolids;

e) Storm water pollution prevention; and

f) Operational practices that can be used to reduce nutrient levels in the effluent.

E. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the final permit. At a minimum the plan must include mechanisms to:

   a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;

   b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

   c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;

   d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and

   e) Provide for continued operation during emergencies.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 180 days after the effective date of the final permit. Any existing emergency response and public notification plan may be modified for compliance with this section.

F. Modification for Cause

This permit may be modified for cause in compliance with 40 CFR §122.62. Cause for modification includes, but is not limited to, new information which was not available at the time of permit issuance and which would have justified the application of different permit conditions at the time of issuance.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with § III.C ("Monitoring Procedures"). The permittee must report all additional monitoring in accordance with § III.D ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

1. Paper Copy Submissions

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 10th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of § V.E of this permit ("Signatory Requirements"). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement, with copies to IDEQ at the following addresses:

US EPA Region 10
Attn: ICIS Data Entry Team, OCE-133
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Idaho Department of Environmental Quality
Twin Falls Regional Office
1363 Fillmore Street
Twin Falls, ID 83301

2. Electronic submissions

If, during the period when this permit is effective, EPA makes electronic reporting available, the permittee may, as an alternative to the requirements in §III.B.1, above, submit reports monthly, electronically by the 10th day of the following month, following guidance provided by EPA. The permittee must certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. ("Signatory Requirements"). The permittee must retain the legible originals of these documents and make them available, upon request, to the EPA Region 10 Director, Office of Compliance and Enforcement and to IDEQ.

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by EPA as alternate test procedures under 40 CFR §136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or IDEQ at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
   a) any noncompliance that may endanger health or the environment;
   b) any unanticipated bypass that exceeds any effluent limitation in the permit (See § IV.F., "Bypass of Treatment Facilities");
   c) any upset that exceeds any effluent limitation in the permit (See § IV.G., "Upset Conditions"); or
   d) any violation of a maximum daily or instantaneous maximum effluent limitation for applicable pollutants listed in the permit to be reported within 24 hours (See § I.B).
   e) any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1, above. The written submission must contain:
   a) a description of the noncompliance and its cause;
   b) the period of noncompliance, including exact dates and times;
   c) the estimated time noncompliance is expected to continue if it has not been corrected; and
   d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

e) if the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.

4. Reports must be submitted to the addresses in Part III.B ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Part III.G.2 of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

I. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and IDEQ in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

3. For the purposes of this section, adequate notice must include information on:

   a) The quality and quantity of effluent to be introduced into the POTW, and

   b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

   US EPA Region 10
   Attn: NPDES Permits Unit Manager
   1200 6th Avenue, Suite 900,
   OWW-130
   Seattle, WA 98101-3140

J. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in the compliance schedule in § I.C of this permit must be submitted no later than each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $37,500 per day for each violation).
2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500). Pursuant to 40 CFR §19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $177,500).
3. Criminal Penalties:
    a) Negligent Violations. The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.
    b) Knowing Violations. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c) Knowing Endangerment. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

d) False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs F.2 and 3, below.

2. Required Notice.

   a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.

   b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G ("Twenty-four Hour Notice of Noncompliance Reporting").

3. Prohibition of bypass.

   a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:

      (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

      (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

      (iii) The permittee submitted notices as required under paragraph 2 of this Part.

4. The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a) An upset occurred and that the permittee can identify the cause(s) of the upset;

   b) The permitted facility was at the time being properly operated;

   c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and

   d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in Part III.I.4. and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §122.62, §122.64, or §124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted

by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and IDEQ, within the time specified in the request, any information that EPA or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or IDEQ, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or IDEQ, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and IDEQ must be signed and certified as follows.

1. All permit applications must be signed as follows:
   a) For a corporation: by a responsible corporate officer.
   b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
   c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a) The authorization is made in writing by a person described above;
   b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ.

3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2 must be submitted to the Director of the Office of Compliance and Enforcement and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this Part must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; IDEQ; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance are mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. "Act" means the Clean Water Act.
2. "Administrator" means the Administrator of the EPA, or an authorized representative.
3. "Average monthly effluent limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
4. "Average weekly effluent limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
5. "Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Composite" - see "24-hour composite".
8. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
9. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
10. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
11. "DMR" means discharge monitoring report.
12. "EPA" means the United States Environmental Protection Agency.
13. "Geometric Mean" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
14. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
15. "IC_{25}" means the inhibition concentration, the concentration of the effluent, that would cause a 25 percent reduction in a non-lethal biological measurement, e.g. reproduction or growth)

16. "IDEQ" means the Idaho Department of Environmental Quality.

17. "Interference" is defined in 40 CFR 403.3.

18. "LC_{50}" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.

19. "Maximum daily effluent limitation" means the highest allowable "daily discharge."

20. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

21. "Minimum Level (ML)" means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.

22. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.

23. "Pass Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

24. "POTW" means publicly owned treatment works, i.e. the permittee.

25. "QA/QC" means quality assurance/quality control.

26. "Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

27. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

28. "24-hour composite" sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

29. "TU_a" ("Acute Toxic Unit") is a measure of acute toxicity. TU_a is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC_{50}")

30. "TU_c "(Chronic toxic unit) is a measure of chronic toxicity. TU_c is the reciprocal of the effluent concentration that causes 25 percent inhibition by the end of the chronic exposure period (i.e., 100/"IC_{25}").

31. "USGS" means United State Geological Survey.

32. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Appendix A

Pollutant Trading In The Upper Snake Rock Subbasin

The permittee is authorized to buy or sell total phosphorus reduction credits pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft) ("the Guidance"); the Middle Snake River Watershed Management Plan, Phase 2 TMDL, Total Phosphorus, December 2002; Upper Snake Rock Watershed Management Plan, Modification, August 2005; and the conditions contained within this permit.

The permittee may engage in pollutant trading for average monthly discharges of total phosphorus. Trading is not allowed to adjust discharges to meet average weekly limits of total phosphorus or for other pollutants. This permit only authorizes trading with point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading. Trading with non-point sources is not authorized.

1. How to Buy or Sell Credits for Pollutant Trading

The City of Twin Falls may voluntarily reduce its "base" average monthly phosphorus discharge (in lbs/day) by a particular amount below its effluent limit for a particular calendar month. This reduction must be verified through effluent monitoring using an EPA approved monitoring method. This reduction creates a "credit" that may be transferred to other eligible point sources in this watershed. Section I.B of this permit contains the average monthly phosphorus limit.

The City may buy available phosphorus credits (in lbs/day for a specified month) from an eligible point source in the same watershed. Acquiring such credits allows the facility to adjust the amount of its reported average monthly phosphorus discharge for that month by subtracting the amount of purchased credits from its actual discharge amount. The point source seller's effective discharge is increased for that month by adding the credit amount to its reported average monthly phosphorus discharge so that its adjusted discharge is higher, but no higher than its average monthly limit.

2. Timing of the Water Quality Trade

Credits can only be traded during the calendar month in which the credit was generated.

3. Procedure for Transferring Credit

To create a valid transfer of a credit, the City of Twin Falls and an authorized buyer (or seller) must complete a Trade Notification Form and submit it to the Idaho Clean Water Cooperative ("the Cooperative") or, in its absence, IDEQ by the last day of the month following generation of the credit. The form must include the following minimum information:

Name of Seller
NPDES Permit Number
Name and telephone number of authorized representative
Amount of Credit to be sold (in lbs/day)
Month in which the Credit is generated
Dated signature of the Seller's authorized representative.

~~Name of Buyer:~~
~~NPDES Permit Number~~
~~Amount of Credit to be purchased (in lbs/day)~~
~~Month for which the Credit is bought~~
~~Dated signature of the Buyer's authorized representative.~~

~~4. Reporting Trades by NPDES Permit Holders to EPA and IDEQ~~

~~Each permittee must submit to EPA (with copies to IDEQ) a phosphorus-specific discharge monitoring report (DMR) and the Trade Summary Report provided by the Cooperative. The Trade Summary Report must provide (A) the permittee's actual average monthly phosphorus discharge (lbs/day); (B) the total amount of credits (lbs/day) bought, if any; (C) the total amount of credits (lbs/day) sold, if any; and (D) the permittee's adjusted discharge (lbs/day), which is equal to A - B + C. The Permittee must record both (A) and (D) on the DMR.~~

~~All DMRs including the phosphorus-specific DMR must be submitted in accordance with Section III.B of the permit. The phosphorus-specific DMR which reports a trade must specify the actual phosphorus discharge and the "adjusted discharge" and must be submitted by the 10th day of the second month following sampling.~~

~~If the buyer and seller submit a Trade Notification Form to the Cooperative but the credits are not available for transfer to the buyer, then the trade is not recorded in the Trade Tracking System and the buyer is subject to noncompliance penalties for any actual discharge over its average monthly limit. Furthermore, once the Trade Notification Form is submitted to the Cooperative and the trade recorded in the Trade Tracking System, the seller is responsible for having sufficient credits to sell in the transaction. If it does not, the seller is subject to noncompliance penalties.~~

~~5. Recordkeeping System~~

~~No trade is valid unless it is recorded through the Trade Tracking System operated by the Cooperative (or alternatively, IDEQ) and meets all the applicable conditions in this permit. The Cooperative records all trades and generates a monthly summary report of all trades valid for each calendar month. The Trade Notification Form must be submitted to the Cooperative by the last day of the month following the generation of the credit in order for it to be recorded in the Trade Tracking System in time to be reported in the monthly Trade Summary Report and submitted with DMR postmarked by the 10th of the second month following the generation of the credit.~~

~~*When*~~	~~*What*~~
~~Monitoring month: 28 - 31 days~~	~~Monitoring is completed~~
~~Next month: by the 10th~~	~~Submit DMR to EPA with actual effluent measured~~
~~Next month: by the last day~~	~~Submit to Idaho Clean Water Cooperative the Trade Notification Form~~
~~Second Month: by the 10th~~	~~Submit to EPA phosphorus-specific DMR with adjusted discharge & Trade Summary Report~~

~~6. Termination of Trading~~

~~IDEQ monitoring of the water quality of the receiving streams will be used to determine if localized impacts are occurring as a result of trades. IDEQ will inform the Cooperative and the permittees affected if trading between specific facilities must be restricted because of localized impacts. Such restrictions may reduce the amount of credits available for transfer to prospective buyers within the affected reach.~~

EPA EXHIBIT # 12

ADMINISTRATIVE RECORD # 110

PUBLIC NOTICE

...s Environmental Protection Agency (EPA)
Region 10
Park Place Building, 13th Floor
1200 Sixth Avenue, Suite 900, OWW-130
Seattle, Washington 98101
(206) 553-0523 or
1-800-424-4372 (within Region 10)

NOTICE OF PROPOSAL TO MODIFY A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ISSUED TO

CITY OF TWIN FALLS
Wastewater Treatment Plant
Canyon Springs Road
Twin Falls, Idaho

TO DISCHARGE TO WATERS OF THE UNITED STATES,

Public Notice No.: Permit No. ID-002127-0
Technical Contact: John Drabek
(206) 553-8257
1-800-424-4372 (within Region 10)
drabek.john@epa.gov

Public Notice Issuance Date: March 29, 2010
Public Notice Expiration Date: April 29, 2010

1. Applicant
City of Twin Falls
P.O. Box 1907,
Twin Falls, Idaho 83303
Permit No. ID-002127-0
2. Draft Permit Modification
EPA is seeking public comment on modifying the NPDES permit issued on November 1, 2009 to the facility referenced above. The draft modification is to not include the following permit conditions:
Section I.B.1. Pollutant Trading. The permittee may engage in pollutant trading for average monthly discharges of total phosphorus, pursuant to the requirements in "State of Idaho Department of Environmental Quality Pollutant Trading Guidance" (November 2003 draft). No trading is allowed to adjust discharges to meet average weekly limits or for other pollutants. This permit only authorizes trading with other point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading. Trading with non-point sources is not authorized. See Appendix A for details about the requirements for buying and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ).
Appendix A "Pollutant Trading In The Upper Snake Rock Subbasin" on pages 37-39 of the attached proposed permit modification.
The Idaho Conservation League challenged these conditions in a petition for review filed with EPA's Environmental Appeals Board on October 24, 2009. In accordance with federal regulations, EPA subsequently issued a notification withdrawing the conditions, effective March 2, 2010, and stating EPA's intent to seek public comment on a proposed permit modification to not include those provisions in the permit. A fact sheet is available.
3. Tentative Determination
The Region 10 Office of the EPA has tentatively determined to issue a permit modification to not include Section I.B.1. and Appendix A in Permit No. ID-002127-0.
4. Public Comments
Persons wishing to comment on the tentative determination described above or wishing to request that a public hearing be held, may do so in writing, within 30 days of the date of this public notice. A request for a public hearing shall state the nature of the issues to be raised as well as the requester's name, address and telephone number. Comments must be received within this 30-day period to be considered in the formulation of final determinations regarding the modification. All comments should include the name, address and telephone number of the commenter and a concise statement of the exact basis of any comment and the relevant facts upon which it is based. All written comments and requests should be submitted to EPA at the above address to the attention of the Director, Office of Water and Watersheds.
5. Administrative Record
The draft NPDES permit modification and other related documents are on file and may be inspected at the above address any time between 8:30 a.m. and 4:00 p.m., Monday through Friday. Copies and other information may be requested by writing to the EPA at the above address to the attention of the NPDES Permits Unit, or by calling (206) 553-8257.

EPA EXHIBIT # 13

ADMINISTRATIVE RECORD # 107

WONDERLICH & WAKEFIELD

ATTORNEYS AT LAW

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E-mail: fwonderl@tfid.org

April 27, 2010

Director, Office of Water and Watersheds
United States Environmental Protection Agency (EPA)
Region 10
1200 Sixth Avenue, Suite 900, OWW-130
Seattle, WA 98101

Re: Comment and Request for a Public Hearing, Permit No. ID-002127-0

Dear Director:

Please accept this letter as the City of Twin Falls' comment and request for a public hearing regarding the Notice of Proposal to Modify the NPDES permit issued to the City of Twin Falls, Idaho, Wastewater Treatment Plant. The proposed permit modification will remove pollutant trading for phosphorus, permitted in Section I.B.1 and Appendix A of the permit. The stated basis for the proposed modification is the EPA's misunderstanding of the discussion of "8.0 Loss and Attenuation" contained in the 2005 Upper Snake Rock TMDL Modification.

The Fact Sheet, provided with the Notification of Draft Permit Modification, states that "trading ratios are not consistent with the attenuation assumptions of the TMDL." THIS STATEMENT IS IN ERROR. The Fact sheet also refers to an alleged inconsistency between the Guidance, which provides for a 1:1 trading ration for all segments, and the 2005 Upper Snake Rock TMDL Modification, which contains a percent of reduction in phosphorus by attenuation that does not support a trading ratio of 1:1 for this reach of the Snake River. THIS IS ALSO IN ERROR.

THE 2005 UPPER SNAKE ROCK TMDL MODIFICATION CONTAINS NO LOSS / ATTENUATION PERCENTAGES, NOR ANY OTHER DATA INCONSISTENT WITH 1:1 PHOSPHORUS TRADING.

The 2003 Guidance contains a trading ratio of 1:1 for phosphorus, based upon the 2000 Upper Snake Rock TMDL, which was approved by the EPA. The TMDL instream target for TP is 0.075-mg/L. See, Section 8.0, Paragraph 4, page 33, 2005 Upper Snake Rock TMDL Modification. Section 8.0 also contains a table labeled "TP Loss/Attenuation" (below) *which in reality is a table comparing the derived concentrations of TP at each compliance point* (see line item "Sub Total Concentration" for TP, Tables 1-A through 6-

A, Section 10.0, 2005 Upper Snake Rock TMDL Modification) *to the target TP concentration for the river of 0.075-mg/L.*

	"==========TP Loss/Attenuation==========		
Compliance Point	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L"

For example, the derived TP for Pillar Falls shown in Section 10.1 is 0.077. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 2.8%. The derived TP for Crystal Springs shown, Section 10.2 is 0.111-mg/L. The amount of TP reduction required to meet the 0.075-mg/L target for TP is 32.4%. And so on. (Note: The TP table in Section 8.0 contains an error in the "Sub Total" number for Box Canyon, which is stated as 0.084-mg/L, but is actually 0.092-mg/L. See, Section 10.3, Table 3-A). See table of calculations below:

10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls Load Calculation Derived from Table 1-A.
TP Sub Total Load (using Sources) = 1967.61 lbs/day
TP using Load Capacity of 0.075mg/L-4,737cfs X 0.0749055 X 5.39 = 1,912.52 lbs/day
Difference between Sources and Load Capacity 1,967.61 – 1912.52 = 55.09 lbs/day
Percent difference from target (1 - (1,912.52/1,967.61)) X 100 = **2.8 %**

10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs Load Calculation Derived from table 2-A.
TP Sub Total Load (using Sources) = 3,287.13 lbs/day
TP using Load Capacity of 0.075mg/L 5,498cfs X 0.0749843 X 5.39 = 2,222.10 lbs/day
Difference between Sources and Load Capacity 3287.13 – 2,222.10 = 1,065.13 lbs/day
Percent difference from target (1 - (2,222.10/3,287.13)) X 100 = **32.4 %**

10.3 SEGMENT 3 – MIDDLE SNAKE RIVER – Crystal Springs to Box Canyon Load Calculation Derived from table 3-A.
TP Sub Total Load (using Sources) = 3,567.65 lbs/day
TP using Load Capacity of 0.075mg/L-7,212cfs X 0.0749825 X 5.39 = 2,914.77 lbs/day
Difference between Sources and Load Capacity 3,567.65 – 2,914.77 = 652.88 lbs/day
Percent difference from target (1 - (2,914.77/3,567.65)) X 100 = **18.3 %**

10.4 SEGMENT 4 – MIDDLE SNAKE RIVER – Box Canyon to Gridley Bridge Load Calculation Derived from table 4-A.
TP Sub Total Load (using Sources) = 4,439.65 lbs/day
TP using Load Capacity of 0.075mg/L-9,113cfs X 0.0750199X 5.39 = 3,684.91 lbs/day
Difference between Sources and Load Capacity 4,439.25 – 3,84.91= 754.74 lbs/day
Percent difference from target (1 - (3,84.91/4,439.65)) X 100 = **17.0 %**

10.5 SEGMENT 5 – MIDDLE SNAKE RIVER – Gridley Bridge to Shoestring Bridge Load Calculation Derived from table 5-A.
TP Sub Total Load (using Sources) = 4,963.83 lbs/day
TP using Load Capacity of 0.075mg/L-11,108cfs X 0.0747823 X 5.39 = 4,477.37 lbs/day
Difference between Sources and Load Capacity 4,963.83 – 4,436.25 = 760.36 lbs/day
Percent difference from target (1 - (4477.37/4963.83)) X 100 **9.8 %**

10.6 SEGMENT 6 – MIDDLE SNAKE RIVER – Shoestring Bridge to King Hill Bridge Load Calculation Derived from table 6-A.
TP Sub Total Load (using Sources) = 4,687.92 lbs/day
TP using Load Capacity of 0.075mg/L 11,398cfs X 0.0747806 X 5.39 = 4,594.16 lbs/day
Difference between Sources and Load Capacity 4,687.92 – 4,601.83= 86.08 lbs/day
Percent difference from target (1 - (4594.16/4687.92)) X 100 = **2.0 %**

The "Percent difference from target" in the calculations above shows the *identical* percentages as contained in the TP table in Section 8.0 in the column labeled "% Loss/Attenuation." It isn't at all clear why Section 10.0 of Upper Snake Rock TMDL Modification used a TP target very slightly more or less than the 0.075-mg/L target, but it is absolutely clear that these are target TP numbers and not sampled data from each segment. See, Upper Snake Rock –Five Year Review, March 2009, Table 3.3b Summary of Water Quality Data collected since 2000 on the Snake River, page 32. The sampled data looks nothing like the numbers contained in the tables, but are nearly identical to the target 0.075-mg/L TP for the river.

The percentages given in the Section 8.0 table do not measure loss/attenuation, but rather the percentage reduction from the derived TP concentrations required to meet the target TP concentration for the river, and each segment of the river, of 0.075-mg/L.

The last sentence of Section 8.0 confirms that the 2005 Upper Snake Rock TMDL Modification does nothing to change the TP export and attenuation data contained in the 2000 Upper Snake Rock TMDL, approved by the EPA. "For the present, the *TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.*"

Section 9.0 of the 2005 Upper Snake Rock TMDL Modification is entitled "Total Phosphorus Pollutant Trading." The first sentence of this modification refers back to the Guidance for total phosphorus trading. "Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ." The Guidance, in Appendix C, very specifically set forth a 1:1 trading program for phosphorus in this reach of the Snake River. In addition, the last paragraph of Section 9.0 of the 2005 Upper Snake Rock TMDL Modification gives an example of phosphorus trading that uses the approved 1:1 trading ratio:

> As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. *Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet*

its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y. Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ's trading guidance.

The EPA has clearly erred in its reading of the 2005 TMDL. The 1:1 trading ratio for phosphorus within the Middle Snake River is the ratio approved by IDEQ and EPA in the 2000 Upper Snake Rock TMDL and in the 2003 Guidance for Pollutant Trading, and there is nothing in the 2005 Upper Snake Rock TMDL that modifies the 1:1 trading ratio for phosphorus. The EPA already recognizes this 1:1 phosphorus trading ratio, as demonstrated by the issuance of the aquaculture general permit which contains this 1:1 ratio for phosphorus trading.

The City of Twin Falls NPDES permit should not be modified to remove 1:1 phosphorus trading. The 1:1 trading is permitted by the 2003 Guidance, and the 2005 Upper Snake Rock TMDL Modification does nothing to modify this ratio. The City understands that future TMDL's and modifications to the Guidance may result in changes to the phosphorus trading ratios, at which time the EPA may reopen to modify, as it has done here. Until there is contrary data, the 1:1 phosphorus trading should be permitted, as provided in all the EPA approved documents.

A public hearing is requested on this matter so that IDEQ personnel and others can testify to the errors made by the EPA in misunderstanding the permitted phosphorus trading within the Middle Snake River, and to the data and information contained in the documents prepared by IDEQ related to this issue.

Very truly yours,

Fritz Wonderlich

Fritz Wonderlich
Twin Falls City Attorney

EPA EXHIBIT # 14

ADMINISTRATIVE RECORD # 106

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John Drabek
EPA Region 10, OWW-1330
1200 Sixth Ave. Suite 900
Seattle, WA. 98101

4/29/10

RE: Idaho Conservation League comments on draft NPDES permit modification for Twin Falls wastewater treatment plant (ID-002127-0)

Dear Mr. Drabek,

Thank you for the opportunity to comment on the draft NPDES permit modification for Twin Falls' wastewater treatment plant (ID-002127-0).

The Idaho Conservation League has a long history of involvement with water quality issues and NPDES permitting in Idaho. As Idaho's largest state-based conservation organization we represent over 9,800 members, many of whom have a deep personal interest in protecting Idaho's water quality and the health of all Idahoan's from the harmful effects of effluent discharge. A number of our members live downstream from Twin Falls and are very concerned about the general health of the Snake River and the low quality of water in this area specifically. Our members rely on the Snake River for clean water for drinking, industry, recreation and irrigation. Failure to ensure that the Twin Falls wastewater facility is adequately regulated may result in ongoing and future discharges that jeopardize our members' interests in the Snake River.

The Idaho Conservation League provided comments to the EPA regarding the prior draft NPDES permit for the Twin Falls wastewater treatment plant and also appealed EPA's recent prior issuance of an NPDES permit to this facility. These prior comments, the appeal to the EAB and all supporting documents are incorporated in these comments by reference.

With regard to this draft permit modification, we concur with EPA's conclusion that pollutant trading, as outlined in the stricken permit sections, was not technically defensible and posed a risk to water quality in the mid-Snake River region. EPA's decision making on this matter, as presented in the Fact Sheet for this NPDES permit, is consistent with the information presented in our prior comments and our appeal and supporting documents.

As such, we support EPA's decision to remove such pollutant trading from the Twin Falls wastewater treatment plan NPDES permit.

Several other matters warrant mention at this time.

TSS Limits

We find that the interim limits for TSS (both average monthly and average weekly) are far to high and will result in continued contributions to the ongoing violations of water quality for this parameter in the mid-Snake region. As such, EPA should reduce (i.e. make more stringent) the interim TSS limits to ensure achievement of TMDL goals for this area.

Further, the final TSS limits need to be reduced to reflect the TMDL assigned WLAs for this facility. The WLA for this facility is 146.4 tons/year. However, the application of the proposed average monthly limit results in 178.85 tons/year discharge. [(980 lbs/day x 365 days/year) / 2000lbs/ton = 178.85 tons/year. Thus the discharge limit is not consistent with the assigned WLA.

Total Phosphorus Limits

This facility's WLA for total phosphorus is expressed as a maximum pounds per day discharge. To the best of our knowledge this is meant to be strictly interpreted as a limit on the number of pounds of total phosphorus that this facility can discharge on any given day. Thus, the NPDES permit needs to include a "Maximum daily limit" for total phosphorus. This limit should not exceed 710 lbs/day.

The average monthly limit of 710 lbs/day pays homage to the facility's WLA but, since it is a monthly average, it does nothing to ensure that the daily limit of 710 lbs/day is adhered to. This is so because averaging allows for daily discharges that greatly exceed the monthly average of 710 lbs/day, as long as they are compensated for by lower discharges on other days. It is these days that exceed 710 lbs/day that violate the TMDL's wasteload allocation. The average weekly limit of 990 lbs/day does even less to ensure that this facility does not violate its 710 lbs/day WLA as assigned in the relevant TMDL.

These monthly and weekly average limits fail to ensure compliance with the TMDL WLAs and will result in unlawful discharges of TP to the river and cause this segment of river to exceed the target TP concentrations.

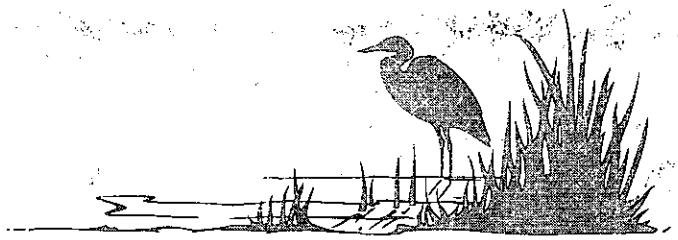
Thank you for your consideration of our comments on this important matter. Please do not hesitate to contact me at 208-345-6933 ext 24 or at jhayes@idahoconservation.org if you have any questions about comments.

Sincerely,

Justin Hayes
Program Director

EPA EXHIBIT # 15

ADMINISTRATIVE RECORD # 57



The Upper Snake Rock Watershed Management Plan

(or Upper Snake/Rock Creek Watershed Management Plan)

The Upper Snake Rock Subbasin Assessment

&

The Upper Snake Rock Total Maximum Daily Load

Prepared by:

Dr. Balthasar B. Buhidar, Ph.D.
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&

The Middle Snake River Technical Advisory Committee
of
The Middle Snake River Watershed Advisory Group
c/o Idaho Division of Environmental Quality
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Twin Falls, Idaho 83301-3035

FINAL PLAN SUBMITTED TO USEPA
December 20, 1999

THE UPPER SNAKE ROCK SUBBASIN ASSESSMENT for SURFACE WATERS of HYDROLOGIC UNIT CODE 17040212

EXECUTIVE SUMMARY

UPPER SNAKE ROCK SUBBASIN AT A GLANCE

Hydrologic Unit Code:	*17040212*
1996 Water Quality Limited Segments:	*16 tributaries, 5 reservoirs, 10 segments on the Middle Snake River*
Beneficial Uses Affected:	*Cold water biota, salmonid spawning, primary contact recreation, secondary contact recreation*
Pollutants of Concern:	*Sediment, nutrients, ammonia, pathogens, pesticides, oil & grease*
Stressors of Concern:	*Dissolved oxygen, flow alteration, thermal modification, temperature*
Major Land Uses:	*54% Rangeland & 41% Agriculture*
Area:	*2438 square miles or 1,536,880 acres*
Population (Year 2000):	*About 85,000 in the subbasin*

1.0 EXECUTIVE SUMMARY

The *Upper Snake Rock Subbasin Assessment (SBA) for Surface Waters of Hydrologic Unit Code (HUC) 17040212* and the *Upper Snake Rock Total Maximum Daily Load (TMDL)* describes those waterbodies that are listed on the 1996 §303(d) list of the federal Clean Water Act that are not meeting their beneficial uses or State water quality standards within HUC 17040212. Inclusively they are called *The Upper Snake Rock Watershed Management Plan*, of which sections 2.0, 4.0, and 5.0 encompass the subbasin assessment, and section 3.0 is the TMDL development section. The SBA is not a TMDL, but rather provides information that may be used in the development of TMDLs for these water quality limited water bodies based on pollutants described in the §303(d) list. It describes the affected subbasin (as a 4th field HUC), the water quality concerns and status of beneficial uses of individual waterbodies, the nature and location of pollution sources, and a summary of past and ongoing pollution control activities (IDHW 1998). The development of a typical "subbasin TMDL" is idealized as a 22-month process: the first ten months focusing on preparing the SBA and the following year spent on developing the TMDL itself (IDEQ 1998a). Once approved by USEPA the water user industries have 18 months to develop implementation plans which are coordinated by IDEQ and eventually submitted to USEPA.

This assessment was prepared as a collaborative effort between Idaho Division of Environmental Quality (IDEQ)-Twin Falls Regional Office (TFRO, who prepared the document), IDEQ-Central Office (who reviewed the document for statewide consistency and legal review), and the Middle Snake River Technical Advisory Committee (Middle Snake TAC or Mid-Snake TAC, who provided technical review comments). Additionally, the Middle Snake River Watershed Advisory Group (Middle Snake WAG or Mid-Snake WAG) and the Upper Snake Basin Advisory Group (Upper Snake BAG) provided comments.

Over 95% of Upper Snake Rock is a Snake River Basin/High Desert ecoregion such that: (1) Its topography consists of tablelands with medium to high relief; (2) Its vegetation is made up predominantly of a sagebrush-grass zone with minimal riparian vegetation in the Middle Snake River or its tributaries; (3) Its land use is 54% desert shrublands (of which grazing is a major activity) and 41% agricultural land (both irrigated and dryland); (4) Its soils are 87% Aridisols and 13% Mollisols, of which 37% are from loess while 63% contain residium,

colluvium, and alluvium. The loessal portion is a type of soil structure more susceptible to water and wind erosion, particularly when vegetation cover is removed. Less than 5% of Upper Snake Rock is a Northern Basin and Range ecosystem (predominantley in the forested areas of the Mount Bennett Hills and the Sawtooth National Forest) such that: (1) Its land form is that of plains with low to high mountains which have open high mountains; (2) Its vegetation is a great basin sagebrush saltbush and greasewood; and, (3) Its land use is a desert shrubland which is grazed and comprises 3% of the total land use.

The SBA describes Upper Snake Rock as having 16 tributaries, 5 reservoirs, and 10 Middle Snake River segments (or a total of 31 waterbody segments) which are water quality limited (based on the 1996 303(d) list), thus requiring the development of a TMDL. Previous to this, the Billingsley Creek TMDL (in 1992) for total phosphorus from aquaculture facilities, and the Mid-Snake TMDL (IDEQ 1997b) for total phosphorus for point and nonpoint source industries were drafted and approved by the USEPA. This SBA is but a continuation of the TMDL process in Upper Snake Rock so that all water quality limited streams and their associated pollutants are brought into the TMDL development process. The point sources include the National Pollutant Discharge Elimination System (NPDES) permitted facilities: aquaculture, food processors, municipalities, and industrials. The nonpoint source industries include: FERC permitted hydroelectric impoundments and generation; confined feeding operations and confined animal feeding operations; agriculture; grazing; forestry; recreation; urban runoff/storm sewers; construction; and hydrologic modification.

The SBA attempts to describe the most current conditions of the water quality limited waterbodies in the subbasin, as well as provide supporting documentation for the various loading elements per tributary at their confluence with the Middle Snake River. Additionally, a summary of past/present pollution control efforts are presented, including the current NPDES permits being developed for point sources in the subbasin. FERC permits for Bliss, Shoshone Falls, Upper Salmon Falls, and Lower Salmon Falls dams are also discussed.

A *Trend Monitoring Plan* has been developed by IDEQ-TFRO and the Middle Snake TAC to determine water quality trends in Upper Snake Rock. This is included as an appendix to the SBA. Additional monitoring by point source industries as required by their NPDES permits is also discussed. Nonpoint sources will monitor as defined in their industry plans and the Middle Snake River TMDL (or Mid-Snake TMDL) (IDEQ 1997b). An additional monitoring plan will be developed for the tributaries in the subbasin during plan implementation.

In general, the Middle Snake River and all its tributaries are impacted by runoff from irrigated crop production, rangeland, pastureland, animal holding areas, feedlots, dredging, hydro-modification (as defined in *40 CFR 131.10(g)*), and urban runoff. Natural springs (such as Crystal Springs, Clear Springs, Niagara Springs) have exhibited hydro-modification and streambank modification from activities relating to sedimentation and siltation, aquaculture, hydropower, irrigated crop production, and land development. The Middle Snake River is a managed water system where *normal* flow regimes (such as spring flush) are no longer present. As a consequence, the absence of the *normal* flow regimes allows for sediment to accumulate which in turn exacerbates the growth of aquatic macrophytes during low flow years.

Applicable designated beneficial uses include agricultural water supply, domestic water supply, industrial water supply, cold water biota, salmonid spawning, primary and secondary contact recreation, wildlife habitats, and aesthetics (which is satisfied by IDAPA 16.01.02.250.05 for general surface water quality criteria which the TMDL addresses through the NPDES permitting program and self-imposed BMPs). At present, those designated beneficial uses not being met include cold water biota, salmonid spawning, primary and secondary contact recreation in some tributaries. Applicable state water quality standards to support these beneficial uses include waters being free of deleterious materials; floating, suspended, or submerged matter; excess nutrients; oxygen-demanding materials; and, sediment. At present, these standards are not being met in some tributaries and certain segments of the Middle Snake River.

In order to better define narrative standards in State water quality standards, instream water quality

concentration targets were developed for specific pollutants of concern. For suspended sediment an instream target of 52 mg/L total suspended solids (TSS) was used to define the load capacity of the tributaries and the Middle Snake River. Values below this concentration were defined as meeting the applicable narrative standard for sediment. Values above this concentration are required to reduce to a level that is less than the target (such as 51.9 mg/L TSS). All waterbodies discharging to natural streams or rivers must discharge at concentrations less than 52 mg/L TSS. Substrate sediment targets are non defined or proposed at this time since minimal data exists to best describe what these targets should be for the Middle Snake River. Overall reduction for point and nonpoint sources is 30.4% but the major target reductions will come from the nonpoint source industries. Point sources have NPDES TSS effluent limits already inplace that meet beneficial uses for the particular waterbody where they discharge.

For total phosphorus (TP) a narrative standard of excess nutrients using USEPA "Blue Book" values was used as instream targets. The Mid-Snake TMDL water quality instream target of 0.075 mg/L TP was used to describe meeting the nuisance narrative standard on the Middle Snake River since about 25% is reservoir-like. For natural tributaries and other waterbodies which have flowing waters and which discharge directly or indirectly to the Middle Snake River, a water quality instream target of 0.100 mg/L TP was used to control accelerated or cultural eutrophication. This portion of the TMDL is affected to a great extent by the NPDES permitting process under the Mid-Snake TMDL. Wasteload allocations for point sources won't be effective till after three years of monitoring are done and a re-evaluation of the loading analysis is accomplished for all point source industries.

For pathogens, State water quality standards for primary and secondary contact recreation are the instream targets. Where data was available a TMDL was determined to be required for seven natural streams. Manmade waterbodies that discharge pathogens that exceed the beneficial uses into receiving natural streams will need to have some action (defined as best management practices) to retard these exceedences to a level where total exceedences for the stream are less than 10% of the total number of samples taken annually.

For un-ionized ammonia, streams with data indicate that no major exceedences were determined in the Middle Snake River or its tributaries with the exception of Clover Creek. Clover Creek does not have ammonia as a pollutant. Therefore, ammonia is proposed as a pollutant to be added to the list of pollutants in the next listing cycle and a TMDL will be developed accordingly afterwards. All other tributaries and segments of the Middle Snake River that are listed for ammonia are proposed for delisting of ammonia as a pollutant. Listed streams without monitoring data will have monitoring done over the next 36 months for assessment of ammonia conditions.

For nitrogen as nitrite+nitrate (NOX), it is proposed that it is not a limiting nutrient of the Middle Snake River or its tributaries. No proposed instream target or TMDL is suggested at this time. However, the parameter will continue to be reviewed by IDEQ based on monitoring information. A TMDL may be proposed if mean loads within the river and its tributaries increase significantly above where the 1990-1998 mean loads are.

For pesticides, only Cottonwood Creek was listed. Instream water quality data collected in 1999 by IDEQ during June, July and August indicates no signficant detections of herbicides, organophosphates or organochlorine insecticides. It is recommended that pesticides as a pollutant be removed. Thus, no TMDL is proposed.

For oil and grease, only Rock Creek is listed. Since the listing was done as a result of point source dischargers which no longer discharge to the stream, oil and grease is proposed for delisting as a pollutant. Thus, no TMDL is proposed.

For temperature, a State IDEQ study will be done to look at statewide inconsistencies or variations on aquatic

life and salmonid spawning. Because of natural environmental diversity, a protocol for measuring, reporting, and evaluating stream temperature will be developed to establish a temperature record that is acceptable for comparison to criteria. The study will produce new temperature criteria for proposal in Year 2000. Therefore, all streams listed for temperature as a pollutant will placed on a separate list and TMDLs will be postponed for 18-24 months to allow the study to develop new water quality standards.

For dissolved oxygen (DO), no TMDL is proposed for the Middle Snake River or its tributaries since it can be shown that violations of State water quality standards (< 6 mg/L DO) occur minimally and only in localized areas where the water is most shallow, low velocity, and under low flow conditions (the worst case scenario). Since the RBM10 modeled a plant biomass reduction of 20-60% (or 30% mean reduction) and a DO of 8.56 mg/L with an instream water quality target of 0.075 mg/L TP, restoration and protection of DO standards under the worst case scenario (which have a 6.3% chance of occuring within a 16 year period) is probable with imposed TP reductions under the Mid-Snake TMDL.

An evaluation and assessment of streams proposed for delisting is summarized for Ellison Creek and Vinyard Creek. Alpheus Creek, Clear Springs, Crystal Springs, Thousand Springs, and Segment 1 (Milner Dam to Pillar Falls) of the Middle Snake River are proposed for antidegradation protection with appropriate distinctions on the natural versus the manmade waterway portions. Blind Canyon Creek is proposed for modification of its listing so that the creek includes that portion of the canyon where the outfall discharge occurs from S-19/S Coulee from the North Side Canal Company. Cottonwood Creek is proposed for redefining in its listing such that there is a distinction made between Cottonwood Creek, North Cottonwood Creek, and Dry Cottonwood Creek.

A stream corridor approach model is proposed that looks at allocation of nonpoint loadings to the major land use nonpoint source industries (agriculture, grazing, forestry, etc.). The model takes into account that upland disturbances may not necessarily directly affect the delivery of pollution to a stream. Therefore, a stream corridor of 2 miles wide was used as a reasonable preliminary approach such that the greatest impact to any stream would come from the stream corridor and flood plain where slope was in the range of 0 to 10%.

Finally, endangered and threatened species affected by degraded water quality are listed and described. Hydroelectric development throughout the Middle Snake River, as well as hydrologic modification in Upper Snake Rock, have to some extent impacted snail species through inundation of lotic habitats, isolating segmented populations, and reducing suitable shallow water shoreline. Declines in snail populations have been attributed, in part, to water quality degradation due to tributary and agricultural return flows laden with sediment, nutrients, runoff from dairies and feedlots, effluent from aquaculture, industrial and municipal facilities, and storm water runoff.

It is proposed that with full implementation of the Mid-Snake TMDL after 3 years of monitoring and with full implementation of the Upper Snake Rock TMDL which will prinicipally center on suspended sediment reduction as well as function as an umbrella for the Mid-Snake TMDL and the Billingsley Creek TMDL, that beneficial uses will be achieved for the Middle Snake River and its tributaries after 10 years of plan implementation. Reductions in suspended sediment will result in reductions in total phosphorus, pathogens, and un-ionized ammonia. Additional reductions in total phosphorus in the Upper Snake Rock TMDL (in addition to what will be done in the Mid-Snake TMDL) will provide sufficient reduction to achieve a more "fishable and swimmable" Middle Snake River due to biological reductions of nuisance aquatic macrophytes. These reductions will in effect maintain DO levels well above the State water quality standard.

Streams that are listed on the 303(d) list but without pathogen data will be monitored over the next two years to ascertain their status. See §3.5 for a discussion on the pathogen TMDL.

6. For total phosphorus the 0.100 mg/L instream target has an implicit MOS to account for the uncertainty and the lack of basic water quality information. This allocation will notd be completed until 3 year of monitoring for the point sources, at which time a reallocation of TP target loads will be done based on the current monitoring information. By default, one of the implicit traits is the design flow which was accounted for under low flow conditions (the worst case scenario for TP).

FUTURE GROWTH

States must include an allowance for future loading in their TMDL that accounts for reasonably foreseeable increases in pollutant loads with careful documentation of the decision-making process. This allowance is based on existing and readily available data at the time the TMDL is established. "Smart Growth" policies and requirements are encouraged if USEPA and IDEQ agree that their adoption and implementation will reduce future loadings in an appropriate amount that equates to the estimate allowance for future growth. However, under the current database for TSS and the other pollutants, and after some discussion with the water user industries and Mid-Snake TAC, it was decided that an allowance for future growth was not recommended until such time as reductions indicated that beneficial uses or State water quality standards had been restored. Therefore, an allowance for growth at this time is zero, such that any growth is only permitted under the following auspices: (1) pollutant trading set to the instream target parameters, (2) not net increase set to the instream target parameters; and, (3) no discharge where land application is the preferred option.

The Upper Snake Rock Watershed Management Plan supports the growth and responsible resource development scenario described in the Mid-Snake TMDL (§1.06). Where growth by any industry becomes a concern, the Mid-Snake TAC and WAG, in conjunction with IDEQ-TFRO, will provide advice as it relates to water quality concerns within the sub basin. Public comment will be encouraged so that responsible economic growth is a serious consideration in the planning process for all industries.

3.5 ALLOCATION AND ASSESSMENT OF PATHOGENS, TSS, TP

Allocation tables for TSS and TP will have the following column headings: WY1990-1991 Baseline Mean Load, tons/year; WY2004 Target Mean LA, tons/year; WY2009 Target Mean LA, tons/year; and Load Reduction. The WY1990-1991 Baseline Mean Load is an estimate of conditions as they occured in the baseline years 1990-1991. WY2004 and WY2009 are short-term and long-term target years, respectively, for having load reductions reach load capacity goals. WY2004 is the short-term goal for getting to the load capacity. Then, maintaining the load capacity through WY2009 is the long-term goal. Load Reduction is the estimate percent reduction that will occur from the baseline years through WY2009. Load Reduction will be summarized for each general pollutant source as a group: point sources discharging to the Middle Snake River, spring sources, surface waterbodies (natural and canalways), the Middle Snake River corridor, and other water user industries (CFOs and/or CAFOs, hydroelectric power, and land application facilities. Within each major TMDL, based on the Middle Snake River segments, there are TMDLs written for each tributary as subcomponents of the overall Upper Snake Rock TMDL. These have their listed pollutant sources with similar baseline loads, target goals, and load reductions. The stream corridor approach model will utilize Table 99 for allocation of pollutant loads based on land use as described in §3.0.2.

Because IDEQ-TFRO does not have sufficient pathogen data to determine cause-and-effect, and because an assessment has been made that the majority of the pathogen sources are from nonpoint sources, Table 99 shall be used as the allocation method for nonpoint sources. Cedar Draw, Mud Creek, and Deep Creek will be further developed during the implementation phase as to the stream corridor approach model. Other waterbodies (such as manmade canals and agricultural drains) that discharge to a natural tributary are expected to discharge at pathogen levels that do not exceed the instantaneous pathogen limit of 500 cfu/100 mL. Natural streams identified as being protected for irrigation conveyance (such as Rock Creek, Cedar Draw, Deep Creek), shall not exceed the instantaneous pathogen limit of 500 cfu/100 mL. CFOs and/or CAFOs (which shall also include all dairies, all feedlots, and all smaller operations) shall discharge as "zero discharge" as defined in the Mid-Snake TMDL.

3.5.2 SUSPENDED SEDIMENT (AS TSS)

The basic model used in the TSS loading analysis was a mass balance spreadsheet that summarized five general components for each Middle Snake River segment: point sources directly discharging to the Middle Snake River; spring sources (which might also have point source influence as indirect dischargers to the Middle Snake River); surface waterbodies (which includes tributaries and irrigation canal drains); the instream segment on the Middle Snake River; and, other water user industries (CFOs and/or CAFOs, hydropower, and land application facilities). These are labeled as A, B, C, D, and E, respectively. The approach was to consider all streams on a segment-by-segment basis as they discharged into the Middle Snake River. Those segments are more fully described in Appendix D, §VII. As described in the TSD, six major segments were selected based on where the most water quality information was available. The segments cover the entire length of the Middle Snake River and include their respective reservoirs. The seven location sites from Milner Dam to King Hill include: Milner Dam (MD), Pillar Falls (PF), Crystal Springs (CS), Box Canyon (BC), Gridley Bridge (GB), Shoestring Bridge (SB), and King Hill (KH). The six segments derived from these seven sites and their respective land uses according to the stream corridor approach model is summarized as follows:

		% Land Use by Stream Corridor Approach Model				
Segment	Name	Agriculture	Rangeland	Forest	Riparian	Other
1	MD to PF	64.2%	11.4%	0.0%	24.3%	0.1%
2	PF to CS	66.7%	13.1%	0.0%	18.6%	1.6%
3	CS to BC	67.1%	11.6%	0.0%	21.2%	0.1%
4	BC to GB	49.3%	29.2%	0.0%	20.8%	0.7%
5	GB to SB	30.3%	55.4%	0.0%	14.1%	0.2%
6	SB to KH	21.9%	65.3%	0.1%	9.4%	3.3%
	Mean	49.9%	31.0%	0.0%	18.1%	1.0%

Natural background is attributed to riparian areas, forest, and water and includes erosional sediment from the stream corridor. In order to achieve the instream water quality target of < 52.0 mg/L TSS, as well as achieve restoration of beneficial uses and State water quality standards, it is necessary to apply TSS load reductions to the following TSS input sources:

1. SPRING SOURCES

As will be demonstrated in §3.5.7, spring sources provide a small amount of TSS to a number of segments on the Middle Snake River and to a number of tributaries. Their contribution to TSS pollution is based on known TSS data from USGS, IDEQ-TFRO, and ERI; this information was tabulated and averaged to arrive at a mean value of 1.3 mg/L TSS for spring sources. It is recognized that the value of 1.3 mg/L may represent a high TSS value particularly since the values reported as < MDL were divided by 2 to arrive at an estimate value for the individual facility or waterbody. Additionally, the spring sources may be coupled with fish hatchery effluent and dependent on the particular waterbody may have the effluent combined with the overall TSS estimate for the particular spring source. Each section is self-contained and has its own explanation as to how the derivation of the TSS load was achieved. As a whole, known spring sources were included in the calculation for derivation of unknown spring sources. No reductions are proposed for spring sources at this time. Their TSS contributions are considered a part of natural background.

2. POINT SOURCES

As will be demonstrated in §3.5.7, point sources provide a small amount of TSS (as a whole) to any of the segments on the Middle Snake River. Tributaries vary widely in their point source TSS pollution to their associated waterbodies. However, in general, most tributaries provide a small fraction of TSS pollution from point sources. Yet, some tributaries provide a major portion of their TSS pollution from point sources. These are addressed according to individual streams and defined as such in the load analysis. No additional reductions are proposed for any of the point sources discharging directly or indirectly to the Middle Snake River at this time since these have undergone a permit change this year which addresses TSS. As more TSS information is provided by the point sources over the next 3-5 years a re-evaluation of TSS loads may be necessary if exceedences occur beyond the current level of practice. Food processors that impact the Middle Snake River are located above Milner Dam as described in §3.2.2 and are considered a component of the background entering Segment 1 along with water from the Milner Pool area. Other food processors within the boundaries of the Upper Snake Rock sub basin discharge to municipalities or land apply. Muncipalities as described in §3.2.3 discharge into the Milner Pool and are considered background like food processors; or, they discharge to tributaries or directly to the Middle Snake River and are accounted in the table of allocations in §3.5. Aquaculture is described fully in the table of allocations as either discharging directly to the Middle Snake River or discharging to a tributary or spring.

3. NONPOINT SOURCES

The Upper Snake Rock TMDL will follow the same definition of water user nonpoint source industry as described in the Mid-Snake TMDL: CFOs and/or CAFOs, irrigated agriculture, grazing, hydroelectric power, urban runoff, construction, land disposal, silviculture, bank erosion, and recreation. The hydroelectric industry does not contribute nutrients to the Middle Snake River and so carries a zero load. USEPA considers CFOs point sources only if an NPDES permit has been applied for and issued. For CFOs (and/or CAFOs), all processed waste must be contained and discharges are allowed only for runoff exceeding a 25-year, 24-hour storm event or in 1 in 5-year winter precipitation on permitted facilities. All other CFOs (and/or CAFOs) are not allowed to discharge. Penalty for discharge for dairy CFOs is revocation of their milk permit by the IDA who currently inspects the operations under the Idaho Dairy Memorandum of Understanding.

4. SURFACE WATERBODIES

As will be demonstrated in §3.5.7, surface waterbodies (natural tributaries and irrigation return drains) provide a major portion of the TSS pollution. Based on known data, TSS reductions to < 52.0 mg/L are described on a per waterbody basis. Based on this data, an average TSS value for these waterbodies was derived and

estimated as 35.7 mg/L for natural tributaries and 102.0 mg/L TSS for seasonal irrigation return drains. When further information is obtained that can better define these estimates, they will be revised. When that occurs load estimates will better approximate the influence of TSS on any specific waterbody in the subbasin. Additionally, all natural surface waterbodies have a shoreline erosional component that is understood but undefined at this time. An effort will be made to get at a value for this component during the implementation phase of the TMDL.

5. MID-SNAKE STREAM SEGMENTS

The TSS instream load was estimated within each of the six segments of the Middle Snake River based on the estimate net load between its upstream and downstream segment sites. It is possible that some accounting of TSS coming from surface waterbodies may be included in this segment. However, this was the best value that could be derived for estimating the instream load of the Middle Snake River segments. It is not possible at this time to derive a truer value of the TSS load. Additionally, a shoreline erosional component of the Middle Snake River is understood but undefined at this time in the loading analysis for TSS. An effort will be made to get at a value for this component during the implementation phase of the TMDL.

3.5.2.1 MILNER DAM TO PILLAR FALLS SEGMENT AND CONNECTING WATERBODIES

All surface waterbodies shall reduce to reach the instream target of < 52.0 mg/L TSS (or 51.9 mg/L). Table 100 describes the TSS load allocation for the Middle Snake River segment from Milner Dam to Pillar Falls and all connecting waterbodies that discharge directly or indirectly to the river. Background load to this segment includes those food processors described in §3.2.2 and those muncipalities described in §3.2.3.

Table 100 TSS load allocation for Segment 1

TSS POLLUTANT SOURCES	*WY1990-1991 BASELINE MEAN LOAD, tons/year*	*WY2004 TARGET MEAN LOAD, tons/year*	*WY2009 TARGET MEAN LOAD, tons/year*	*% LOAD REDUCT*
Point Sources Discharging Directly to the Middle Snake River				
Hansen POTW[1]	1.3	1.3	1.3	
Sub Total A	1.3	1.3	1.3	0.0%
Spring Sources				
Vinyard Creek	17.1	17.1	17.1	0.0% R
Devil's Corral Spring	54.0	54.0	54.0	
Unaccounted Springs	652.7	652.7	652.7	
Sub Total B	723.8	723.8	723.8	0.0%
Surface Waterbodies				

Dry Creek (main stem)	56.4% Ag = 1,089.3 40.5% Graze = 782.2 3.1% Backgrd = 59.8 Sub Total = 1,931.3	Agriculture = 195.02 Grazing = 128.5 Background = 22.2 Year 5 Target = 345.7	Agriculture = 195.02 Grazing = 128.5 Background = 22.2 Year 10 = 345.7	82.1%R
West Fork of Dry Creek	100.0% Graze = 921.4	100.0% Graze = 164.7	Grazing = 164.7	82.1%R
Sub Total	2,852.7	510.6	510.6	
A Drain	1,427.8	451.2	451.2	
A-10 Drain	209.7	209.7	209.7	
C 55 Drain	342.9	342.9	342.9	
Twin Falls Coulee	1,038.1	444.3	444.3	
Unaccounted Surface	9,523.8	6,785.7	6,785.7	
Sub Total C	15,395.0	8,744.4	8,744.4	43.2%
Segment 1: MD to PF				
Milner Dam to Pillar Falls	64.2% Ag = 5,100.9 11.4% Graze = 905.8 Background = 1,938.7 Sub Total = 7,945.4	Agriculture = 3,402.3 Grazing = 604.2 Background = 1,293.1 Year 5 Target = 5,299.6	Agriculture = 3,402.3 Grazing = 604.2 Background = 1,293.1 Year 10 = 5,299.6	
Sub Total D	7,945.4	5,299.6	5,299.6	33.3%
Other Water User Industries				
CFOs and/or CAFOs[2]	Zero Discharge	Zero Discharge	Zero Discharge	
Hydroelectric Power	0	0	0	
Land Application Facilities	0	0	0	
Sub Total E	0	0	0	0.0%
OVERALL TOTAL (A+B+C+D+E)	STARUP LOAD 24,065.5	LOAD CAPACITY 14,769.0	LOAD CAPACITY 14,769.0	OVERALL 38.6%

Prepared by IDEQ-TFRO. REDUCT = Reduction. TOTAL = Summation of all Sub Totals in the Table. See Appendix D*(Section VII, Segment 1)* for details of derivation and calculations. TSS reductions are: 0.0% for Point Sources, 0.0% for Spring Sources, 43.2% for Surface Waterbodies, and 41.6% for Segment 1, or an Overall TSS reduction of 41.4%. Dry Creek Complex in the ArcView GIS Hydro100 coverage divides the watershed into 10 segments and includes canalways and unnamed streams. Of the overall total length provided in the coverage of all of the stream segments, 24.7% is attributed to Dry Creek main stem and accounts for Dry Creek from headwaters to Medley Creek and from Medley Creek to the Middle Snake River; 11.8% is attributed to the West Fork of Dry Creek from the headwaters to Dry Creek; and, 63.5% is attributed to Medley Creek, Cold Spring Creek, East Fork of Dry Creek, Middle Fork of Dry Creek, Coyote Creek, Pit Creek, Stump Hollow, and unnamed streams. Only the WQLSs of the Dry Creek Complex are included in the above table. Dry Creek main stem and the West Fork of Dry Creek were prorated to 100% of the total load provided as 67.7% and 32.3%, respectively. LA = Load Allocation.

1. Hansen POTW discharges to an irrigation ditch. Assuming the irrigation ditch discharge reaches the Middle Snake River through its myriad winding turns, it would discharge at approximately RM617.9 on the southside. It is uncertain if this ever occurs.
2. CFOs and/or CAFOs also includes smaller dairies, all feedlots, and smaller confined feeding operations that do not have and NPDES stormwater permit.

The antidegradation policy for the State of Idaho (IDAPA 16.01.02.051(01) indicates that "the existing instream

water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." The river segment from Milner Dam to Pillar Falls appears to be meeting its narrative standard for sediment although it is listed for sediments in the 1996 303(d) list. Recreation has increased dramatically in the last 5 years due to higher flows and better water quality. In fact, recreation is becoming a growing industry in Segment 1 of the Middle Snake River. Monitoring data confirms that during 1990-1998 of 455 samples taken (247 for Milner Dam and 208 for Pillar Falls) only two samples were > 52 mg/L TSS instream target: 63 mg/L on 6/26/97 and 77 mg/L on 3/25/97. These were found during high flow years in two separate months. Thus, there is a 1.9% chance (2 months in 108 months) that such an event will occur, indicating that even under high flow conditions the water quality entering this segment is probably on an average basis below the instream target for meeting beneficial uses for salmonid spawning and cold water biota. TSS values > 25 mg/L but < 52 mg/L were accounted for in 16.2% of the samples. Thus, 83.8% of the samples were < 25 mg/L TSS. Because of this higher water quality for sediment, this segment (as a whole) will be considered as background (as statutorily defined in IDAPA 16.01.02.003.07; "the [*IDEQ*] will determine where background conditions should be measured") for the entire Middle Snake River for protection at current existing conditions. Current existing conditions are defined in this TMDL as meaning that point and nonpoint source inputs will reduce to levels < 52 mg/L TSS before discharging into this segment of the Middle Snake River. TSS values < 52 mg/L does not imply that degradation by TSS may occur up to 52 mg/L. Rather, TSS values should be < 52 mg/L on an average annual basis which will allow for some exceedences of the instream standard to account of seasonality. Degradation of the water quality beyond these conditions shall not occur but shall be maintained at or below these levels through Year 10 of plan implementation.

However, it is IDEQ's administrative policy under IDAPA 16.01.02.050.01 that "the adoption of water quality standards and the enforcement of such standards is not intended to conflict with the apportionment of water to the state through any of the interstate compacts or court decrees, or to interfere with the rights of Idaho appropriators, either now or in the future, in the utilization of the water appropriations which have been granted to them under the statutory procedure, or to interfere with water quality criteria established by mutual agreement of the participants in interstate water pollution control enforcement procedures." Yet, "wherever attainable, surface waters of the state shall be protected for beneficial uses which for surface waters includes all recreational use in and on the water surface and the preservation and propagation of desirable species of aquatic biota" (IDAPA 16.01.02.050.02.a). Segment 1 of the Middle Snake River will be protected through antidegradation for its recreational value as previously described. "In all cases, existing beneficial uses of the waters of the state will be protected" (IDAPA 16.01.02.050.02.c). Acts of God and/or uncontrollable flood events (as a result of structure failure, environmental terrorism, etc.) and/or drought conditions are exempt during the period of impact until such time that the impact is stabilized and the "imminent and substantial danger to the public health or environment" (IDAPA 16.01.02.350.02.a) is minimized so that the activity may be "conducted in compliance with approved BMPs...to fully protect the beneficial uses" (IDAPA 16.01.02.350.02.b.ii.(2)). Other activities that may cause degradation but which are outside the scope of IDAPA 16.01.02.050.01 and which there is foreknowledge of the event's occurence will require a formal written letter from the individual, organization, or agency to IDEQ-TFRO about the nature of the potential event. If the activity violates IDAPA 16.01.02.350.02.b.i such that it will occur "in a manner not in accordance with approved BMPs, or in a manner which does not demonstrate a knowledgeable and reasonable effort to minimize resulting adverse water quality impacts," then IDEQ-TFRO will seek intervention by the Administrator of IDEQ for preparation of a compliance schedule (as provided in Idaho Code 39-116); and/or institute administrative or civil proceedings including injunctive relief (as provide in Idaho Code 39-108).

3.5.2.2 PILLAR FALLS TO CRYSTAL SPRINGS SEGMENT AND CONNECTING WATERBODIES

All surface waterbodies shall reduce to reach the instream target of < 52.0 mg/L TSS (or 51.9 mg/L). Table

101 describes the TSS load allocation for the Middle Snake River segment from Pillar Falls to Crystal Springs and all connecting waterbodies that discharge directly or indirectly to the river.

Table 101 TSS load allocation for Segment 2

	TSS POLLUTANT SOURCES	WY1990-1991 BASELINE MEAN LOAD, tons/year	WY2004 TARGET MEAN LOAD, tons/year	WY2009 TARGET MEAN LOAD, tons/year	% LOAD REDUCT
	Point Sources Discharging Directly to the Middle Snake River				
1	Canyon Springs FH	31.3	31.3	31.3	
2	Blue Lakes Processing FH	5.6	0.61 (5.6)	0.61 5.6	*
3	Blue Lakes FH	1,177.1	296.87 (1,177.1)	296.87 1,177.1	
4,5	Pristine Springs (+WW)	125.3	125.3	125.3	
6	City of Twin Falls POTW	146.4	146.4	146.4	
7	Crystal Springs FH	942.5	404.23 (942.5)	404.23 942.5	
	Sub Total A	2,428.2	2,428.2	2,428.2	0.0%
	Spring Sources				
	Ellison Springs	1.6	1.6	1.6	
	Crystal Springs[1] and Lake[4]	63.9	63.9	63.9	
	Unseen Underground Seeps	165.2	165.2	165.2	
	Unaccounted Springs[2]	(191.7)	(191.7)	(191.7)	
	Sub Total B	39.0	39.0	39.0	0.0%
	Surface Waterbodies				
8	East Perrine Coulee Green's Trout FH Sub Total	3,353.8 12.0 3,365.8	1,482.3 12.0 1,494.3	1,482.3 12.0 1,494.3	
	Main Perrine Coulee	1,262.7	559.0	559.0	
	West Perrine Coulee	555.5	129.2	129.2	
	43 Drain	56.6	16.3	16.3	
	Warm Creek	341.1	341.1	341.1	
	Jerome Golf Course Drain	780.6	397.2	397.2	

Rock Creek Complex:			
Rock Creek main stem	84.5% Ag = 11,979.1 1.8% Graze = 255.2 Background = 1,942. ub Total = 14,176.4	Ag = 9,328.6 Grazing = 198.7 Background = 1,512.5 Sub Total = 11,039.8	Ag = 9,328.6 Grazing = 198.7 Background = 1,512.5 Sub Total = 11,039.8 → 22.13%R
McMullen Creek[3]	See §2.5.03 Deep Draw → Deep Creek	0.0	0.0
Cottonwood Creek[3]	See §2.5.03 Deep Draw	0.0	0.0
Canyon Trout FH	21.1	21.1	21.1
Canyon Trout Processing	Total Containment	0.0	0.0
C&M Farm FH	28.1	28.1	28.1
Daydream Ranch FH	25.9	25.9	25.9
Deadman FH	27.5	27.5	27.5
CSI FH	9.7	9.7	9.7
Frame FH	35.6	35.6	35.6
Coats FH	39.3	39.3	39.3 *
Sub Total	14,363.6	11,227.0	11,227.0 → 21.8%R
30 Drain	2,228.0	311.4	311.4
LQ/LS Drain	6,379.8	1,500.4	1,500.4
Rand FH	47.5	47.5	47.5 *
Sub Total	6,427.3	1,547.9	1,547.9
LS2/39 A Drain	1,111.0	269.6	269.6
N42-N Drain	147.8	147.8	147.8
N42-NT Drain	321.2	321.2	321.2
39 Drain	1,997.4	243.5	243.5
Unaccounted Surface	(2,798.8)	(2,076.4)	(2,076.4)
Sub Total C	30,159.8	14,929.1	14,929.1 50.5%
Segment 2: PF to CS			
Pillar Falls to Crystal Springs	66.7% Ag = 5,085.0 13.1% Graze = 998.7 Background = 1,540.0 Sub Total = 7,623.7	Agriculture = 3,391.7 Grazing = 666.1 Background = 1,027.2 Sub Total = 5,085.0	Agriculture = 3,391.7 Grazing = 666.1 Background = 1,027.2 Sub Total = 5,085.0
Sub Total D	7,623.7	5,085.0	5,085.0 66.7%
Other Water User Industries			
CFOs and/or CAFOs[5]	Zero Discharge	Zero Discharge	Zero Discharge
Hydroelectric Power	0	0	0
Land Application Facilities	0	0	0
Sub Total E	0	0	0 0.0%
OVERALL TOTAL (A+B+C+D+E)	STARTUP LOAD 40,250.7	LOAD CAPACITY 22,481.3	LOAD CAPACITY 22,481.3 44.1%

Prepared by IDEQ-TFRO. REDUCT = Reduction. TOTAL = Summation of all Sub Totals in the Table. See Appendix D *(Section VII, Segment 2 and Section X, Segment 2)* for details of derivation and calculations. WW = Warmwater. FH = Fish Hatchery. TSS reductions are 0.0% for point sources, 0.0% for spring sources, 50.5% for surface waterbodies, 33.3% for the instream segment of the Middle Snake River, or an overall 44.1% reduction.
1. Based on 50 cfs that bubbles underneath the lake. 199.6 cfs is accounted for by the Crystal Springs FH.
2. Unaccounted Springs = 153.9 cfs.
3. McMullen Creek and Cottonwood Creek are portions of the Rock Creek Complex and are included in this table as additional streams to Rock Creek. Historically, their discharge was to Rock Creek, but that is no longer the case. Currently, both creeks discharge to the High Line Canal which eventually discharges to Deep Creek.
4. A Crystal Lake remediation plan is proposed by Clear Springs Foods, Inc. In 1991 considerable sediments were removed from Crystal Lake as a result of a dredging effort. Because of lake bottom irregularities not all of the sediments could be removed. It is possible that the remaining sediments are providing sufficient nutrients to support abundant aquatic plant growth. Sufficient time would be needed to diminish these nutrients through natural biological processes. IDEQ-TFRO proposes to do an assessment of the lake within 5 years of plan implementation, and in conjunction with Clear Springs Foods, Inc. to determine the best course to follow to reduce these historical sediments.
5. CFOs and/or CAFOs also includes smaller dairies, all feedlots, and smaller confined feeding operations that do not have and NPDES stormwater permit.

3.5.2.3 CRYSTAL SPRINGS TO BOX CANYON SEGMENT AND CONNECTING WATERBODIES

All surface waterbodies shall reduce to reach the instream target of < 52.0 mg/L TSS (or 51.9 mg/L). Table 102 describes the TSS load allocation for the Middle Snake River segment from Crystal Springs to Box Canyon and all connecting waterbodies that discharge directly or indirectly to the river.

Table 102 TSS load allocation for Segment 3

TSS POLLUTANT SOURCES	*WY1990-1991 BASELINE MEAN LOAD, tons/year*	*WY2004 TARGET MEAN LOAD, tons/year*	*WY2009 TARGET MEAN LOAD, tons/year*	*% LOAD REDUCT*
Point Sources Discharging Directly to the Middle Snake River				
Magic Valley FH	813.2	p.407 144.11 813.2	813.2	
Rim View FH	606.7	p.408 266.91 606.7	606.7	
IPC/Niagara Springs FH	108.6	108.6	108.6	
Gary Wright FH	10.8	10.8	10.8	
Catfish FH/FBI	200.8	p.407 35.31 200.8	200.8	
Kaster Trout FH	96.6	96.6	96.6	
Box Canyon FH	1,712.3	p.407 584.48 1,712.3	1,712.3	
Briggs Creek FH	47.5	p.409 44.93 47.5	47.5	
Sub Total A	3,596.5	3,596.5	3,596.5	0.0%
Spring Sources				
Unseen Underground Seeps	141.7	141.7	141.7	
Niagara Springs	38.9	38.9	38.9	
Clear Springs & Lake[1]	180.1	180.1	180.1	
Clear Lakes Trout FH	~~349.0~~ 317.2	349.0	349.0	
Middle Hatchery FH	358.2 ✓	358.2	358.2	
Snake River FH	195.8 ✓	195.8	195.8	
Clear Springs Processing	~~4.5~~ 5.8	4.5	4.5 *	
Sub Total	1.0 1,087.6	1,087.6	1,087.6	

Add clear lakes trout w./ Processing plant = 0.97 ≈ 1.0

878.0 pts

Cedar Draw	1.3%	98.7%
Mud Creek	2.5%	97.5%
Deep Creek	2.3%	97.7%
Blind Canyon Creek	0.4%	99.6%
J8 Drain	4.4%	95.6%
East Perrine Coulee	0.4%	99.6%
Thousand Springs	3.2%	96.8%
Riley Creek	24.5%	75.5%
Birch Creek	98.7%	1.3%
Stoddard Creek	Unknown	Unknown
Decker Springs Creek	Unknown	Unknown
Billingsley Creek	73.0%	27.0%

Based on the loading analysis in Table 103. Stoddard Creek and Decker Springs Creek have aquaculture facilities that utilized and discharge to these creeks.

From this assessment it can be surmised that any cleanup plan will necessitate addressing the specific sources of pollution. For the Middle Snake River the nonpoint sources for land uses affecting the corridor and for surface waterbodies transporting TSS to the river appear to be the greatest source of TSS pollution. On the other hand, for each surface waterbody (other than the Middle Snake River itself) it may be that nonpoint sources may not necessarily be the major source of TSS. Depending on the stream, point sources may comprise a greater impact than nonpoint sources. Therefore, the development of implementation plans that are specifically designed for the particular waterbody is critical to the success of the Upper Snake Rock TMDL. In the case of some waterbodies, an implementation plan may already be developed but not yet fully applied. For example, Billingsley Creek had a preliminary nonpoint source and point source implementation plan developed by a steering committee in the early 1990s for the reduction of pollutants that could easily be adapted to current needs. It may necessitate updating BMPs, but it could readily be applied with some minor updating. Others are already in progress with the intercession of a land management agency (such as NRCS, the SCC, and the ISCDs) as in the case of Rock Creek, Mud Creek, and Deep Creek. Others, such as Clear Springs and Lake, are in the development phase and involve particular facilities that already have permit restrictions imposed. Still others have some work already done, as in the case of East Perrine Coulee, but necessitate further development and a more holistic approach to include urban concerns from stormwater impacts. Then there are those that will require new work because little has been done to date to curb pollution concerns. The division of a waterbody into segments so as to target various types of BMPs may be necessary for success on some streams. As a consequence of all these variables, IDEQ-TFRO will review and assess all implementation plans in a coordinated effort with the appropriate land management agency and provide necessary updates to the Mid-Snake WAG and USEPA on a regular basis. See §3.6.1 and §3.6.2.

3.5.3 TOTAL PHOSPHORUS (TP)

The basic model used in the TP loading analysis was a mass balance spreadsheet that summarized five general components for each Middle Snake River segment: point sources directly discharging to the Middle Snake River; spring sources (which might also have point source influence as indirect dischargers to the Middle Snake River); surface waterbodies (which includes tributaries and irrigation canal drains); the instream segment on the Middle Snake River; and, other water user industries (CFOs and/or CAFOs, hydropower, and land application facilities). These are labeled as A, B, C, D, and E, respectively. The approach was similar to that of TSS (see §3.5.2). However, the allocation is incomplete as it currently stands due to the lack of sufficient TP information. Yet, as it stands it provides the basis by which meeting the instream water quality target will meet the load capacity for reduced eutrofication of aquatic plant growths in meeting the narrative

standard for excess nutrients. The logic and approach of an instream target of 0.100 mg/L for all tributaries flowing to the Middle Snake River is as follows:

(1) The Mid-Snake TMDL's water quality target of 0.075 mg/L was established from RBM10 Model simulations using the flow data from 1930-1939 which represented the lowest flow years on the hydrologic record. Model simulation results gave a value of 0.0728 mg/L at Gridley Bridge, thus the Mid-Snake WAG agreed to a target of 0.075 mg/L for the Middle Snake River for meeting beneficial uses to control excess nuisance aquatic plant growth (which does not mean that 100% of the macrophytes will be reduced). This was the initial startup target over a 10-year period with the provision that if beneficial uses were not met, then TP reductions would be more stringently refined.

(2) The Middle Snake River has an estimated 26% reservoir-like water; the remaining 74% being riverine-like. However, because of flow management the Middle Snake River has altered streamflow dynamics. The Middle Snake River has 5 reservoirs which are often confused as true reservoirs and lakes. In fact, they are not. According to the State of Idaho's (IDEQ's) 1998 BURP Lake and Reservoir Workplan [p 8] waterbodies that have a residence time > 14 days are candidates for using lake and reservoir BURP. The reservoirs of Bliss, Lower Salmon Falls, Upper Salmon Falls, Shoshone Falls, and Twin Falls all have residence times < 14 days and are operated as "run-of-the-river" by Idaho Power Company (IPC). Milner Dam is operated as an irrigation diversion and its reservoir is in the Lake Walcott reach and being addressed by the Lake Walcott TMDL. As defined by IPC, "run-of-the-river means that the volume of inflow to the reservoir is equal to the volume of outflow within a 24 hour period." Therefore applying water quality criteria that is applicable to lakes or reservoirs is not applicable to the Middle Snake River reservoirs.

(3) The Gold Book "standard" (USEPA Quality Criteria for Water 1986) has the following criteria for TP (as "phosphate phosphorus") to prevent the development of biological nuisances and to control accelerated or cultural eutrophication: TP should not exceed 0.050 mg/L "in any stream at the point where it enters any lake or reservoir;" nor 0.025 mg/L "within the lake or reservoir;" and, "a desired goal for the prevention of plant nuisances in streams or other flowing waters not discharging directly to lakes or impoundments" of 0.100 mg/L.

The conclusion from the logic and approach used for an instream wate quality target of 0.100 mg/L TP is that the 0.075 mg/L TP instream target is specific to the Middle Snake River, and under the Mid-Snake TMDL has a compliance point at Gridley Bridge. This compliance point is now superceded by the Upper Snake Rock TMDL such that the entire stretch from Milner Dam to King Hill is the compliance point. Since 74% of the Middle Snake River is riverine-like, and since its reservoirs are currently and historically operated as "run-of-the-river," the entire system may be considered "like a managed river." Application of the 0.100 mg/L is not applicable to the Middle Snake River since it was decided that 0.075 mg/L TP was applicable. However, the 0.075 mg/L TP instream target was never meant as a carryover to its tributaries. Therefore, the application of the 0.100 mg/L TP as an instream target for other tributaries is appropriate and reasonable at this time, and will meet beneficial uses to control excess nuisance aquatic plant growth. This is the initial startup target that will be used for all natural tributaries over a 10-year period with the provision that if beneficial uses are not met, then TP reductions will be more stringently refined. Manmade waterways that discharge to natural waterways shall meet the same instream target of 0.100 mg/L at the point where they discharge to the natural tributary.

Sub Total E	0	0	0	0.0%
OVERALL TOTAL (A+B+C+D+E)	STARTUP LOAD 998.9	LOAD CAPACITY 704.6	LOAD CAPACITY 704.6	29.5%

Prepared by IDEQ-TFRO. REDUCT = Reduction. OVERALL TOTAL = Summation of all Sub Totals in the Table. See Appendix D, Section XIV for details of derivation and calculations. Explanations in Appendix D are similarly applicable in this table.
1. The load capacity target for the Hansen POTW is the NPDES permit limit: 3.3 lbs/day average monthly limit.
2. CFOs and/or CAFOs also includes smaller dairies, all feedlots, and smaller confined feeding operations that do not have and NPDES stormwater permit.

3.5.3.2 PILLAR FALLS TO CRYSTAL SPRINGS SEGMENT AND CONNECTING WATERBODIES

All surface waterbodies shall reduce to reach the instream target of < 0.010 mg/L TP, except for the Middle Snake River which has a target of 0.075 mg/L TP. Table 108 describes the TP load allocation for the Middle Snake River segment from Pillar Falls to Crystal Springs and all connecting waterbodies that discharge directly or indirectly to this segment.

Table 108 TP load allocation for Segment 2

TSS POLLUTANT SOURCES	*WY1990-1991 BASELINE MEAN LOAD, lbs/day*	*WY2004 TARGET MEAN LOAD, lbs/day*	*WY2009 TARGET MEAN LOAD, lbs/day*	*% LOAD REDUCT*
Point Sources Discharging Directly to the Middle Snake River: MEET PERMIT LIMIT WHICH IS LOAD CAPACITY				
Canyon Springs FH	9.5	5.7	5.7	
Blue Lakes Processing	IN DEVELOPMENT			
Blue Lakes FH	90.1	54.1	54.1	
Pristine Springs FH (+WW)	38.0	22.8	22.8	
City of Twin Falls POTW	1071.2	707.0	707.0	
Crystal Springs FH	122.7	73.6	73.6	
Sub Total A	1331.5	863.2	863.2	35.2%
Spring Sources: MEET LOAD CAPACITY AND DON'T REDUCE				
Ellison Springs	0.1	0.1	0.1	
Crystal Springs Lake	5.4	5.4	5.4	
Unseen Underground Seeps	13.9	13.9	13.9	
Unaccounted Springs	16.2	16.2	16.2	
Sub Total B	35.6	35.6	35.6	0.0%
Surface Waterbodies: Includes Natural Tributaries and Manmade Canals				
East Perrine Coulee	31.4	15.8	15.8	
Main Perrine Coulee	11.7	5.9	5.9	
West Perrine Coulee	4.2	1.4	1.4	

Green's Trout Farm

43 Drain	0.4	0.2	0.2	
Warm Creek (springfed)	7.0	2.3	2.3	
Jerome Golf Course Drain	10.3 (6.9)	4.2	4.2	
Rock Creek	184.9	118.5	118.5	
30 Drain	16.1	3.3	3.3	
LQ/LS Drain	50.0	16.3	16.3	
LS2/39A Drain	9.7	2.8	2.8	
N42 Drain	5.4	4.8	4.8	
N42 Drain (Rim)	8.3	5.5	5.5	
39 Drain	19.5	2.6	2.6	
Unaccounted Surface	105.2	43.0	43.0	
Sub Total C	460.8	226.5	226.5	50.8%
Segment 2: PF to CS				
Pillar Falls to Crystal Spring	470.8	416.6	416.6	
Sub Total D	470.8	416.6	416.6	11.5%
Other Water User Industries: MEET LOAD CAPACITY WITH ZERO DISCHARGE				
CFOs and/or CAFOs[2]	Zero Discharge	Zero Discharge	Zero Discharge	
Hydroelectric Power	0	0	0	
Land Application Facilities	0	0	0	
Sub Total E	0	0	0	0.0%
OVERALL TOTAL (A+B+C+D+E)	STARTUP LOAD 2298.7	LOAD CAPACITY 1542.0	LOAD CAPACITY 1542.0	32.9%

Prepared by IDEQ-TFRO. REDUCT = Reduction. OVERALL TOTAL = Summation of all Sub Totals in the Table. See Appendix D, Section XIV for details of derivation and calculations. Explanations in Appendix D are similarly applicable in this table.
1. CFOs and/or CAFOs also includes smaller dairies, all feedlots, and smaller confined feeding operations that do not have and NPDES stormwater permit.

3.5.3.3 CRYSTAL SPRINGS TO BOX CANYON SEGMENT AND CONNECTING WATERBODIES

All surface waterbodies shall reduce to reach the instream target of < 0.010 (0.100) mg/L TP, except for the Middle Snake River which has a target of 0.075 mg/L TP. Table 109 describes the TP load allocation for the Middle Snake River segment from Crystal Springs to Box Canyon and all connecting waterbodies that discharge directly or indirectly to this segment.

Table 109 TP load allocation for Segment 3

TSS POLLUTANT SOURCES	*WY1990-1991 BASELINE MEAN*	*WY2004 TARGET MEAN LOAD,*	*WY2009 TARGET MEAN LOAD,*	*% LOAD REDUCT*

EPA EXHIBIT # 16

ADMINISTRATIVE RECORD # 58

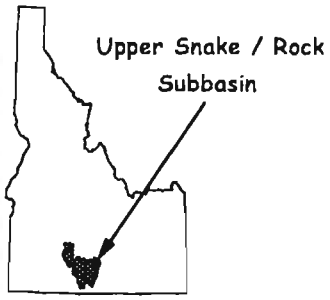
TMDL Executive Summary

Upper Snake / Rock Subbasin TMDL

July 2000

TMDL AT A GLANCE:

Subbasin:	*Upper Snake / Rock*
Key Resource:	*Cold Water Biota*
Uses Affected:	*Salmonid Spawning*
	Primary / Secondary Contact Recreation
Pollutants:	*Sediment*
	Phosphorus
	Fecal Coliform Bacteria
Sources Considered:	*PS - Aquaculture, Municipal, Industrial*
	NPS - Agriculture, Forestry, Grazing, Construction, Urban, Animal Feeding Operations



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This document summarizes the Upper Snake / Rock Subbasin TMDL submitted by the State of Idaho Division of Environmental Quality (IDEQ). This summary is organized to follow the *"checklist"* of TMDL elements required by law and regulation. This document also contains other information considered in the TMDL review process. In addition, the Upper Snake/Rock TMDL supplants the Billingsley Creek TMDL and the Mid-Snake TMDL previously approved by the USEPA. These early TMDLs will eventually be summarized as components of the Upper Snake/Rock TMDL.

1. SUBMITTAL LETTER

Idaho IDEQ submitted the Upper Snake / Rock Subbasin TMDL via letter dated December 28, 1999 from David Mabe (State Water Quality Program Administrator) to Randall Smith (EPA Region 10 Office of Water Director). The letter, received by EPA Region 10 on January 3, 2000, also encloses *"The Upper Snake Rock Watershed Management Plan" (USRWMP).* The letter explicitly states that the entire package constitutes IDEQ's formal submission to EPA of a TMDL addressing thirty-one (31) §303(d) listed waters in the Upper Snake / Rock Subbasin. A listing of these waters and their pollutants or stressors is attached to the letter.

The State believes that the Upper Snake / Rock Subbasin TMDL meets all the requirements under the federal Clean Water Act [§303(d)], the Idaho Administrative Procedures Act [IDAPA §16.01.02], Idaho Code [IC §39-3601 *et seq.*], and the Idaho Nutrient Management Act [IDAPA §16.01.16]. The State of Idaho also believes that, as such, the Upper Snake / Rock Watershed Management Plan updates, as a component, the Idaho State Water Quality Management Plan in accordance with the Clean Water Act [§205, §208, and §303] and IC §39-3612.

2. SCOPE OF TMDL

The description of the waterbodies, the locations, and the pollutants / stressors of concern are attached to the submittal letter. This information also appears in the enclosed document *"The Upper Snake Rock Watershed Management Plan" (see Table 22, page 61).* The TMDL covers those waterbodies that are on Idaho's 1996 §303(d) list within the USGS subbasin or Hydrologic Unit Code (HUC) 17040212 *(Table 1).* Development of this TMDL grouped §303(d) segments into analysis units which are also identified in Table 1. The priority ranking was determined by the schedule submitted to the Court in 1997. Pollutants covered by the TMDL (through specific allocations) include total suspended solids (TSS), total phosphorus, and fecal coliform.

Important factors considered in development of the TMDL are described at length in the USRWMP *(see Section 2, pages 5-149).* The TMDL covers 93 miles of the Snake River including 28 named tributaries to the *"Mid Snake" (see Section 2.1.3.6, page 27).* Over 95% of the Upper Snake / Rock subbasin is in the Snake River / High Desert Ecoregion. Topography consists of tablelands with medium to high relief. Natural vegetation is predominantly a sagebrush / grass zone. The advent of large scale irrigation in the subbasin has changed large areas of the sagebrush / grass to agricultural crops and pasture land. Current land use in the 2,438 square mile subbasin is

approximately 54% rangeland and 41% agriculture. Population in the subbasin is estimated to be about 85,000 (year 2000).

Table 1a. §303(d) Waterbodies and Pollutants Covered by Upper Snake / Rock Subbasin TMDL

Unit[1]	Stream Name	PNRS	Boundaries	Pollutants		
				Sed	*Nutr.*	*Path*
			Tributaries			
1	Dry Creek, West Fork	411.0	Headwaters to Dry Creek	X	X	X
	Dry Creek	409.0	Headwaters to Medley Creek	X	X	
	Dry Creek	408.0	Medley Creek to Snake River *(630.6)*	X	X	X
	Vinyard Creek	407.0	Headwaters to Snake River *(617.9)*	X	X	
2	Alpheus Creek	405.0	Headwaters to Snake River *(610.5)*	X	X	
	Rock Creek	400.0	Rock Creek (town) to Snake River *(606.4)*	X	X	X
	Ellison Creek	399.0	Headwaters to Snake River *(605.0)*	X	X	
	Crystal Springs	398.0	Headwaters to Snake River *(600.4)*	X	X	
3	Cedar Draw[2]	397.0	Headwaters to Snake River *(599.1)*	X	X	X
	Clear Springs	395.0	Headwaters to Snake River *(593.0)*	X	X	
	Mud Creek[2]	394.0	Low Line Canal to Snake River *(591.5)*	X	X	X
	Deep Creek[2]	392.0	High Line Canal to Snake River *(591.4)*	X	X	X
	McMullen Creek	404.0	Headwaters to Cottonwood Creek	X	X	X
	Cottonwood Creek	403.0	Headwaters to Rock Creek	X	X	X
	Blind Canyon Creek	389.0	Headwaters to Snake River *(588.1)*	X	X	X
4	Thousand Springs Cr.	386.0	Headwaters to Snake River *(584.4)*	X	X	
	Riley Creek	385.0	Headwaters to Snake River *(582.9)*	X	X	X
5	Billingsley Creek	384.0	Headwaters to Snake River *(573.8)*	X	X	X
6	Pioneer Reservoir[3]	380.0		X	X	
	Clover Creek	379.0	Pioneer Reservoir to Snake River *(547.6)*	X	X	X

Notes:

[1] Because of the size and complexity of the Upper Snake / Rock subbasin, development of the TMDL grouped §303(d) segments into analysis units.

[2] Cedar Draw, Mud Creek, and Deep Creek are included in the 1998 §303(d) amended list (May 1, 2000) and were originally intended for inclusion in the TMDL due to water quality information that verified their proposed listing.

[3] Reservoir boundaries include the entire reservoir from its upper reaches to its lower reaches.

Table 1b. §303(d) Waterbodies and Pollutants Covered by Upper Snake / Rock Subbasin TMDL

Unit[1]	Stream Name	PNRS	Boundaries	Pollutants		
				Sed	*Nutr.*	*Path*
Mainstem Snake River (RM 638.5 to RM 545.0)						
1	Snake River	378.0	Milner Dam to Murtaugh *(638.5 -> 630.5)*	X	X	
	Snake River	377.0	Murtaugh to Twin Falls Reservoir *(617.5)*	X	X	
	Shoshone Falls Res.[2]	375.0	*(614.7)*	X	X	
2	Snake River	374.1	Shoshone Falls to Rock Creek *(606.4)*	X	X	
	Snake River	374.0d	Rock Creek to Cedar Draw *(599.1)*	X	X	
3	Snake River	374.0c	Cedar Draw to Clear Lakes Bridge *(593.0)*	X	X	
	Snake River	374.0b	Clear Lakes Bridge to Mud Creek *(591.5)*	X	X	
	Snake River	374.0a	Mud Creek to Deep Creek *(591.4)*	X	X	
4	Upper Salmon Falls Res.[2]	373.0	*(581.4)*	X	X	
5	Lower Salmon Falls Res.[2]	372.0	*(573.0)*	X	X	
	Snake River	371.0	Lower Salmon Falls to Bliss Res. *(565.8)*	X	X	
6	Bliss Reservoir[2]	370.0	*(559.9)*	X	X	
	Snake River	369.0b	Bliss Bridge to Big Pilgrim *(556.6)*	X	X	
	Snake River	369.0a	Big Pilgrim to King Hill *(545.0)*	X	X	

Notes:
[1] Development of the TMDL grouped §303(d) segments into analysis units (described previously).
[2] Reservoir boundaries include the entire reservoir from its upper reaches to its lower reaches.

A summary of water quality for §303(d) streams in the subbasin is presented in the USRWMP *(see Section 2.2.2, pages 64-89)*. In general, the Middle Snake River and its tributaries are affected by runoff from irrigated crop production, rangeland, pasture land, animal holding areas, feedlots, fish hatcheries, municipal discharges, hydrologic modification, and urban runoff. In addition, large springs and seeps contribute significant flow. The Middle Snake River is a managed water system where normal flow regimes (e.g. spring flush) are no longer present. As a consequence, the absence of normal high spring flows allows excess sediment to accumulate which exacerbates the growth of aquatic macrophytes during low flow years.

Point and nonpoint sources are described in the USRWMP *(see Section 2.2.1, pages 62-64)*. Point sources include NPDES permitted facilities for aquaculture, food processors, municipalities, confined animal feeding operations, and industrial sources. Nonpoint sources include unconfined animal feeding operations, irrigated agriculture, grazing, forestry, recreation, urban runoff / storm sewers,

construction, and hydrologic modification (i.e. irrigation diversions and FERC permitted hydroelectric impoundments). In addition, the USRWMP includes a pollutant source inventory which describes point and nonpoint sources associated with segments on Idaho's 1998 §303(d) list in the Upper Snake / Rock subbasin *(see Section 2.3, pages 130-49).*

3. APPLICABLE WATER QUALITY STANDARDS

"The Upper Snake Rock Watershed Management Plan" includes a description of the applicable water quality standards *(see Section 2.2.3, pages 89-111).* Designated uses not currently being protected are described starting on page 89 and include cold water biota, salmonid spawning, and primary / secondary contact recreation. Applicable state water quality criteria to support these designated uses include water being free of deleterious materials; floating, suspended, or submerged matter; excess nutrients; oxygen-demanding materials; and sediment [IDAPA §16.01.02.200.03, ...05, ...06, ...07]. For sediment and nutrients, the applicable water quality standards are narrative. Instream water quality targets are set for Year 5 (after plan approval) and then held for an additional five years through Year 10, thus giving the acronym Year 5/10. The USRWMP describes how these narrative criteria are interpreted by Idaho IDEQ in order to provide numeric target values for the TMDL. This interpretation is summarized as follows.

Sediment: Idaho's water quality standards for sediment are narrative criteria with no fixed numeric value. Furthermore, Idaho's water quality standards also state under the anti-degradation policy that *"the existing in-stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected"* [IDAPA 16.01.02.051(01)]. Based on several sources of information described in the USRWMP *(see Section 2.2.3.3(5), pages 101-104)*, Idaho IDEQ set an upper limit of 52 mg/L total suspended solids (TSS) as a monthly average target in the TMDL for those streams currently exceeding that value and a daily maximum of 80 mg/L. This allows for a good-to-moderate protection of the fisheries. For streams that are below 52 mg/L, the current TSS concentration is the upper limit in the TMDL based on Idaho's anti-degradation policy. Targets for each §303(d) segment are summarized in this review summary under the discussion on loading capacity *(Table 3).* Recognizing the potential need to refine these targets, the TMDL provides that surface water quality within any stream segment that can be demonstrated to be below the instream water quality target will be considered for site-specific criteria development after year 5 of plan implementation or sooner where applicable *(see Section 3.1, page 164).* A substrate sediment target is not suggested at this time since there is little information to quantify a target value or a percent reduction scenario. However, discussion are currently underway by the Mid-Snake Technical Advisory Committee to explore this issue over the next 3-5 years.

Total Phosphorus: The provision regarding excess nutrients is the starting point for development of nutrient targets in the TMDL. This provision states that: *"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"* [IDAPA §16.01.02.200.06]. Nutrients are defined as *"The major substances necessary for the growth and reproduction of aquatic plant life, consisting of nitrogen,*

phosphorus, and carbon compounds" [IDAPA §16.01.02.003.66]. Based on several sources of information described in the USRWMP *(see Section 2.2.3.3(2c), pages 99-100)*, Idaho DEQ set an instream target of 0.100 mg/L total phosphorus for tributaries to the Mid Snake River. For the mainstem Snake, the Mid-Snake TMDL used a water quality target of 0.075 mg/L total phosphorus at Gridley Bridge. This has now been modified to be 0.075 mg/L total phosphorus for the entire Middle Snake River as a representative average (*see Section 3.1.2, page 169, of the TMDL*). This takes into account the modified flow regime of the Mid Snake with run-of-river impoundments on a large river system. Therefore, "from upstream to downstream the overall target of the Middle Snake River is 0.075 mg/L" (see Section 3.1.2, page 170, of the TMDL). The logic and approach of an instream target of 0.100 mg/L for all waterbodies flowing into the Middle Snake River is summarized in Section 3.53, pp 217-218, in the TMDL.

Fecal Coliform: Idaho's water quality standards identify numeric criteria for fecal coliform bacteria to protect both primary and secondary contact recreation [IDAPA §16.01.02.100.03 and §16.01.02.250.01]. For primary contact recreation, the numeric criteria is not to exceed 500 colonies / 100 mL at any time, 200 colonies / 100 mL in more than ten percent of the total samples taken over a 30-day period, and a geometric mean of 50 colonies / 100 mL based on a minimum of five samples taken over a 30-day period. For secondary contact recreation, the numeric criteria is not to exceed 800 colonies / 100 mL at any time, 400 colonies / 100 mL in more than ten percent of the total samples taken over a 30-day period, and a geometric mean of 200 colonies / 100 mL based on a minimum of five samples taken over a 30-day period. Instream water quality targets for fecal coliform are discussed in the USRWMP *(see Section 3.1.3, pages 170-173)* and are set at 400 colonies / 100 mL. As of April 5, 2000 Idaho has adopted E. coli criteria to replace the fecal coliform criteria, as recommended by EPA in 1986. A revised TMDL will be developed at a later date taking these new criteria into account. In the meantime implementation to address fecal coliform loading is expected to also reduce E. coli loading.

4. LOADING CAPACITY

Loading capacities for TSS and total phosphorus in the Upper Snake / Rock Subbasin TMDL are calculated as an annual average load (tons/year). Determination of the loading capacity is a function of streamflow and target concentrations. While total phosphorus(TP) loading capacity was calculated as an annual load, allocations of TP are expressed as lbs/day to facilitate NPDES permitting and comparison to the Mid-Snake TP TMDL approved in 1997. It is reductions in annual loading of TP that are expected to be effective in meeting water quality criteria. The relationship of these parameters to identification of the loading capacity and subsequent development of the TMDL is discussed below.

Streamflow: The U.S. Geological Survey (USGS) has five long term stations on the mainstem Mid Snake in the subbasin. Because a significant volume of water is diverted at Milner Dam (e.g. the head of the Upper Snake / Rock Subbasin), a sixth long term gage on the mainstem Snake River gives a useful perspective. These USGS streamflow gages are identified in Table 2 and provide information which was considered in the review of the Upper Snake / Rock TMDL. The effect of water

EPA EXHIBIT # 17

ADMINISTRATIVE RECORD # 61

Final Document

The Upper Snake Rock TMDL Modification

Upper Snake Rock Watershed Management Plan – Modification -
A Modification of Mid-Snake TMDL and Upper Snake Rock TMDL
To Account for the Aquaculture Wasteload Allocation
Of
Part 1 (Fish Production Facilities & Conservation Hatcheries),
Part 2 (Fish Processors), and
Part 3 (Billingsley Creek Facilities)

Prepared for

U. S. Environmental Protection Agency – Region 10
U. S. EPA Idaho Operations Office – Boise, Idaho
Idaho Department of Environmental Quality – State Office
Middle Snake River Watershed Advisory Group

Prepared by

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Twin Falls Regional Office

July 22, 2005

a. Absolute Maximum Threshold. It is expected that the fall and winter months will have as a whole for each individual TMDL wasteload allocation values that are greater than those during the spring and summer months. A value 10% greater than the base wasteload allocation threshold will be applied such that 10% of the measurements are the absolute maximum above the numeric threshold for the industry. This does not mean or imply that the industry may exceed the threshold up to 10%. But in the event of an overage, the "absolute maximum threshold" is a value 10% greater than the base wasteload allocation.

b. Alignment to Specific TMDL. Each individual facility must be aligned to a specific TMDL within the Upper Snake Rock subbasin. Each TMDL is aligned to a specific waterbody that has defined load allocations and wasteload allocations that meet beneficial uses and water quality standards.

c. Applicable Industry TP Target. The aquaculture industry must meet the total industry TP target and the targets set for the individual stream segments.

d. Fish Processors: The fish processors are not included in the 970.2 lb/day TP instream target. They will have their own wasteload allocations, but they must meet the beneficial uses of the stream through which their discharges will be assimilated.

e. Billingsley Creek Facilities. The fish facilities on Billingsley Creek are not included in the 970.2 lb/day TP instream target. They will have their own wasteload allocations, but they must meet the beneficial uses of Billingsley Creek through which their discharges will be assimilated.

f. Seasonal Load Capacity. For each seasonal quarter, the total load for all sources will need to meet the load capacity. This implies that an adjustment in loads must occur for either the wasteload allocations or the load allocations. The stream TMDLs will account for that adjustment in the load allocations so that the load capacity is not exceeded seasonally.

7. Seasonal Wasteload Allocations. This document includes a wasteload allocation that has a seasonal component for those aquaculture facilities that requested it. DEQ believes these wasteload allocations, together with other point and nonpoint controls, will meet water quality standards to support beneficial uses during all seasons.

8.0 LOSS AND ATTENUATION

This component of the water quality assessment was the most difficult portion to determine. The DEQ has reviewed all data that was used to develop the various TMDL tables in this document. The river tables were especially reviewed for consistency and content along with public comment considerations. The Middle Snake River is a modified river system that is approximately 25.7% reservoir-like due to six major impoundments (Buhidar 1999A [p 20]). Within this system there is "loss" (downstream transport) and "attenuation" (localized placement) of sediment and total phosphorus. TP and TSS act differently within each of the river segments. From the standpoint of

a simple mass-balance model, a number of assumptions are necessary. These assumptions include:

1. Major Inputs and Major Outputs. The assumption is made that from a comparison standpoint, major inputs are only compared with major outputs. The output for TP is the percentage of TP exported from the segment downstream into the next segment. River monitoring data indicates that instream TP values at the compliance points do indeed transport downstream into the next segment, especially Segment 2. No distinction is made between organic phosphorus and inorganic phosphorus. The major inputs are point sources, spring sources, surface waterbodies (natural and manmade), and the Middle Snake River corridor within the segment.

2. Total Losses. The assumption is made that total losses to volatilization, soil adsorption, sedimentation, groundwater storage, and denitrification equal the difference between the total inputs and the output. Relative to TP in an aquatic system, volatilization and denitrification do not apply. Phosphorus is present in several forms in an aquatic system, and not all forms are readily available for uptake by phytoplankton (Thomann and Mueller 1987 [p 390]). On the other hand, sediment deposits may be organic–rich (Hauer and Lamberti 1996 [p 124]), thus being affected by volatilization and denitrification. Therefore, TP attenuation may be a combination of substrate sedimentation as well as plant uptake.

3. Processes Operate Equally. The assumption is made that processes operate equally on all sources and that the relative contribution of sources to watershed export is proportional to the inputs.

4. Applicable Instream Targets. The beneficial use instream targets must be applicable. The TMDL instream targets have been defined as surrogates for beneficial use attainment. Therefore, TSS is 52.0-mg/L for tributaries (natural and manmade) and the Middle Snake River. The TP is 0.075-mg/L for the Middle Snake River, 0.100-mg/L for tributaries, and 0.020-mg/L for groundwater sources linked to an aquifer.

5. Milner Pool. Upstream of Milner Dam is the Milner Pool, which functions as a sediment/phosphorus trap. Approximately 20% of the flow goes over Milner Dam into the Middle Snake River (Buhidar 1997 [p 64]) during the irrigation months. The remainder of the flow is diverted for irrigation to the north or south of the Milner Pool. In general, the Milner Pool is nitrogen limiting. The Middle Snake River becomes phosphorus limiting as you go from upstream to downstream (Buhidar 1999A and 1999B [pp 333-334]). Therefore, that component of water that goes into the Middle Snake River has a significant portion that is reduced in TSS and TP within the Milner Pool (Buhidar 1999A and 199B [pp 312-313]).

Relative to TP, the Middle Snake River has an organic component that averages 52.1% of the TP. This is based on N=259 samples collected with an average range from 39.9% to 72.7% as soluble reactive phosphate. This greater level of organic phosphorus implies that greater losses of TP are possible (as described in item 1 above) if the soluble component remains suspended in the instream column and it is transported downstream in the water column. Research in the Pacific Northwest indicates that the average range for % TP Export is 9.1 – 37.3% for all major sources based on quartile analysis of the data (Smith and Alexander 2000). The Middle Snake River has phosphorus export losses that range from 4.2 – 36.5% (Buhidar 1999A [Technical

Support Document, Section VII] based on instream column monitoring data at the various compliance points. This range supports the research of Smith and Alexander (2000). It is assumed that the export TP export loss includes some level of attenuation to substrate sediments. Both TP export (transport loss) and attenuation (localized placement) are highly dependent on the amount of concentration present in the water column, the stream slope, the organic component, and the modified hydrologic regime of the Snake River system relative to reservoir-like versus riverine conditions. Tributaries at present are defined without a loss or attenuation value, but there is no doubt that one exists.

In addition, data from the Idaho Power Company's trash racks appears to indicate that biomass (as aquatic plant growths) are being cleaned out of the river system. The amount of biomass being collected appears to follow a pattern similar to the loss/attenuation percentage being applied to TP. This data gap will need to be researched at a future date based on available resources. Therefore, the instream estimate TP export loss/attenuation values at the compliance points per segment are as follows:

	==========TP Loss/Attenuation=========		
Compliance Point	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	0.075-mg/L
Pillar Falls	0.077-mg/L	2.8%	0.075-mg/L
Crystal Springs	0.111-mg/L	32.4%	0.075-mg/L
Box Canyon	0.084-mg/L	18.3%	0.075-mg/L
Gridley Bridge	0.090-mg/L	17.0%	0.075-mg/L
Shoestring Bridge	0.083-mg/L	9.8%	0.075-mg/L
King Hill	0.077-mg/L	2.0%	0.075-mg/L

Relative to TSS, the range of values for percentage TSS export loss was 0.2-48.0%. These values fall in the same category of ranges for large river systems that are modified due to impoundments. A conservative value of 10.0% was used since the Sub Total load at the downstream compliance point (per segment) was always less than 52.0-mg/L TSS. Again, this is a data gap that needs to be researched more fully at a future date based on available resources. Instream estimate TSS export loss/attenuation values at the compliance points per segment are as follows:

	==========TSS Loss/Attenuation=======		
Compliance Point	Sub Total	% Loss/Attenuation	Total
Milner Dam	-	-	52.0-mg/L
Pillar Falls	46.7-mg/L	10.0%	42.1-mg/L
Crystal Springs	50.3-mg/L	10.0%	45.3-mg/L
Box Canyon	48.9-mg/L	10.0%	44.0-mg/L
Gridley Bridge	49.9-mg/L	10.0%	44.9-mg/L
Shoestring Bridge	49.3-mg/L	10.0%	44.4-mg/L
King Hill	48.7-mg/L	10.0%	43.8-mg/L

Both TP and TSS export (loss) and attenuation (localized placement) needs to be studied more intimately within the Middle Snake River system to ascertain more directly the applicable coefficients for each segment. For the present, the TP and TSS export and attenuation models are the same as used in the Upper Snake Rock TMDL.

9.0 TOTAL PHOSPHORUS POLLUTANT TRADING

Total phosphorus pollutant trading is presently described under a trading guidance that was developed by EPA and DEQ. Pollutant trading is a contractual agreement to exchange pollutant

reductions between two partners. It is a voluntary way to help meet TMDLs. Trading is allowed on the Middle Snake River as described in the guidance. Trading into the tributaries will be allowed once DEQ establishes equivalency ratios. Any seasonal or non-seasonal facility is eligible to participate in pollutant trading.

Pollutant trading is a tool that can be used to help a point source meet its NPDES phosphorus limits. Typically, a discharger facing relatively high pollutant reduction costs compensates another party to achieve an equivalent, though less costly, pollutant reduction. Trading is voluntary, takes place through private contracts, and is regulated through compliance with NPDES permit requirements.

A point source may voluntarily reduce its phosphorus discharge below its NPDES permit limit by a particular amount for a particular time-period. This creates a credit that may be sold to another point source. The transfer of credits reduces the seller's permit limit by the amount of the credits. The buyer may increase its discharge limit by the amount of credits it purchases. Credits are characterized by an amount of a pollutant per unit of time. Each point source is responsible for meeting its individual permit limit for phosphorus, adjusted by traded credits. Credits must be generated and purchased during the same time-period. In other words, if a discharger exceeds a permit limit in January it must purchase credits generated in January.

As an example, if facility X has an NPDES permit allowing for the discharge of 100 lb/day of phosphorus and is able, through technology, to reduce its discharge to 75 lb/day, it has 25 credits to sell. If facility Y has an NPDES permit allowing for the discharge of 100 lb/day phosphorus, but is currently discharging 125 lb/day, it is exceeding its permit limit by 25 lb/day phosphorus. Facility Y may either find a way to reduce an additional 25 lb/day of phosphorus in order to meet its permit limit or it may purchase 25 lb/day of phosphorus credits from facility X. At this point, the same amount of phosphorus is discharged into the river, 200 lb/day, but through a different distribution between facilities X and Y. Each point source must reflect the actual discharge amount of phosphorus in their Discharge Monitoring Reports and also show the purchase of credits in a Trade Summary report in accordance with DEQ's trading guidance.

10.0 ALLOCATIONS ACCORDING TO RIVER SEGMENT AND TRIBUTARY

The Middle Snake River was divided into six (6) decision units or segments based on seven (7) compliance points, as defined in the Upper Snake Rock TMDL. The method of allocation took into account the allocations given in the Mid-Snake TMDL and the Upper Snake Rock TMDL. Because the receiving stream is the Middle Snake River, each river segment indirectly describes all tributaries. Consequently, all tributaries (natural and manmade), all direct point source dischargers, and all nonpoint sources are linked to the six river segments. These river segments with their natural tributaries are defined as follows:

Segment	Input Source	Output Discharge	Tributary with TMDL
1	Milner Dam	Pillar Falls	Vinyard Creek
			Devils Corral Springs
			Dry Creek + West Fork
2	Pillar Falls	Crystal Springs	Warm Creek
			Rock Creek
			Crystal Springs
			Alpheus Creek
			Ellison Springs
3	Crystal Springs	Box Canyon	Cedar Draw
			Niagara Springs
			Clear Lakes

			Mud Creek
			Deep Creek
			Briggs Creek
			Blind Canyon
			Banbury Springs
			Box Canyon
			Blue Heart Springs
			McMullen Creek
			Cottonwood Creek
4	Box Canyon	Gridley Bridge	Ritter Creek
			Riley Creek
			Sand Springs
			Salmon Falls Creek
5	Gridley Bridge	Shoestring Bridge	Billingsley Creek
			Birch Springs
			Stoddard Springs
			Decker Springs
			Malad River & Power Flume
6	Shoestring Bridge	King Hill	Clover Creek
			Pioneer Reservoir

All mean flows per river segment and per natural tributary were obtained from the EPA-approved Upper Snake Rock TMDL in order to maintain consistency between the TMDL and this TMDL modification.

As described by Buhidar and Sharpnack (2003), some of the Snake River segments and some of the tributaries have aquaculture facilities aligned with them. As part of an DEQ staff analysis (draft) on localized impacts, DEQ previously determined the loading capacity for each river segment and tributary (Buhidar and Sharpnack 2003). As part of that analysis, each aquaculture facility was assessed per tributary (or per river segment) to determine if localized impacts and accumulative impacts were present relative to TP, TSS, and *Escherichia coli*. A summary of this staff analysis follows:

1. Total Phosphorus (TP). The loading capacity for each tributary was based on 0.100 mg/L TP. The loading capacity for each segment of the Snake River was based on 0.075 mg/L TP. Spring sources where no development had occurred had loading capacities based on 0.020 mg/L TP.

   The wasteload allocation for each aquaculture facility was based on the industry's aquaculture subcommittee recommendation, which were accepted by DEQ after public comment was received.

2. Total Suspended Solids (TSS). The loading capacity for each tributary was based on 52.0 mg/L. Initially, the value of 50.0 mg/L was used incorrectly, but this was corrected in the present document to reflect 52.0 mg/L.

   The wasteload allocation for each aquaculture facility was based on their current 5.0 mg/L TSS concentration limit. The "beneficial uses and water quality standards of the receiving stream(s) is (are) fully protected at 5.0 mg/L TSS, and consequently are at significantly safe levels for protection of the resource" (Buhidar and Sharpnack 2003 [p 9]).

3. *Escherichia coli*. The loading capacity of each tributary was based on 235 cfu/100 mL for primary contact recreation/single sample. At all times a

geometric mean of 126-cfu/100 mL was used based on five samples taken every 3 to 5 days over a 30-day period.

The "*E. coli* criteria are not indigenous to cold water fish hatcheries or warm water fish hatcheries. Fish, whether raised in cold water or warm water are cold-blooded animals and do not generate *E. coli* in their intestines" (Buhidar and Sharpnack 2003 [pp11-12]). Therefore, each fish hatchery received a wasteload allocation of zero for a load of *E. coli*.

What follows in the following subsections is a summary of each river segment and tributary relative to its specific TMDL. An Input section and an Output section describe fully the load considerations for each river segment. Each tributary has its load capacities for TP and TSS fully described. Point and nonpoint sources are described within each table.

10.1 SEGMENT 1 – MIDDLE SNAKE RIVER - Milner Dam to Pillar Falls

The load allocations for Segment 1 of the Middle Snake River are defined as follows based on mean flows. These loads represent input loads to Segment 1 at Milner Dam. The equivalent pollutant concentrations are 0.075-mg/L TP and 52.0-mg/L TSS.

Milner Dam Load Considerations: Input to Segment 1
TP = 3,860.0 cfs x 0.0750002-mg/L TP x 5.39 = 1,560.41-lb/day
TSS = 3,860.0 cfs x 52.0000001-mg/L TSS x 5.39 x 0.1825 = 197,443.25-ton/year

The following export loads at Pillar Falls are output loads from Segment 1. Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.077-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 1. Similarly, the TSS concentration shows a decrease to 46.7-mg/L TSS with a reduction to 42.1-mg/L TSS due to export loss/attenuation within Segment 1.

Pillar Falls Load Considerations: Output from Segment 1
TP = 4,737.0 cfs x 0.077-mg/L TP x 5.39 = 1,967.61-lb/day
TP Export Loss/Attenuation = 2.7998435% = -55.09-lb/day
TP = 4,737.0 cfs x 0.0749055-mg/L TP x 5.39 = 1,912.52-lb/day

TSS = 4,737.0 cfs x 46.7451839-mg/L TSS x 5.39 x 0.1825 = 217,817.06-ton/year
TSS Export Loss/Attenuation = 10.0000018% = -21,781.71-ton/year
TSS = 4,737.0 cfs x 42.0706647-mg/L TSS x 5.39 x 0.1825 = 196,035.35-ton/year

In the pollutant transport from Segment 1 to Segment 2, the TP load used for input into Segment 2 was 1,912.52-lb/day TP as 0.075-mg/L TP. The TSS load used for input into Segment 2 was 217,817.06-ton/year TSS as 46.7-mg/L TSS. Table 1-A summarizes the Segment 1 tributaries and the direct dischargers to the Middle Snake River and demonstrates that beneficial uses will be met if point source and nonpoint source allocations are met by Year 2010.

TSS SOURCES	TSS ton/year	SEASONALITY LOADS, ton/year TSS			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4
NPS (Ag, Graze, Private, Corridor)	210.53	210.53	210.53	210.53	210.53
FERC, LAFs, CFOs	0.00	0.00	0.00	0.00	0.00
Stormwater – Construction Activities	4.30	4.30	4.30	4.30	4.30
Point Sources	0.00	0.00	0.00	0.00	0.00
Margin of Safety	Implicit	Implicit	Implicit	Implicit	Implicit
Total Load (at 52.0 mg/L TSS)	214.83	214.83	214.83	214.83	214.83

NPS = Nonpoint sources for agriculture, grazing, and private ground. TP = Total phosphorus. TSS = Total suspended solids. 4544solids. Qtr = Quarter. FERC = Hydropower facilities. LAFs = Land application facilities. CFOs = Confined feeding operations. FH = Fish hatchery. FP = Fish processor.

10.2 SEGMENT 2 – MIDDLE SNAKE RIVER - Pillar Falls to Crystal Springs

The load allocations for Segment 2 of the Middle Snake River are defined as follows based on mean flows. These loads represent input loads to Segment 2 at Pillar Falls. The equivalent pollutant concentrations are 0.075-mg/L TP and 46.7-mg/L TSS.

Pillar Falls Load Considerations: Input to Segment 2
TP = 4,737 cfs x 0.0749055-mg/L TP x 5.39 = 1,912.52-lb/day
TSS = 4,737 cfs x 46.7451839-mg/L TSS x 5.39 x 0.1825 = 217,817.06-ton/year

The following export loads at Crystal Springs are output loads from Segment 2. Export loss/attenuation is estimated at indicated levels based on instream water-quality levels at the compliance points. The equivalent TP concentration shows an increase in TP to 0.111-mg/L TP with a reduction to 0.075-mg/L TP due to export loss/attenuation within Segment 2. Similarly, the TSS concentration shows an increase to 50.3-mg/L TSS with a reduction to 45.3-mg/L TSS due to export loss/attenuation within Segment 2.

Crystal Springs Load Considerations: Output from Segment 2
TP = 5,498.0 cfs x 0.1109235-mg/L TP x 5.39 = 3,287.13-lb/day
TP Export Loss/Attenuation = 32.3999963% = -1,065.03-lb/day
TP = 5,498.0 cfs x 0.0749843-mg/L TP x 5.39 = 2,222.10-lb/day

TSS = 5,498.0 cfs x 50.2983616-mg/L TSS x 5.39 x 0.1825 = 272,025.87-ton/year
TSS Export Loss/Attenuation = 10.0000011% = -27,202.59-ton/year
TSS = 5,498.0 cfs x 45.2685249-mg/L TSS x 5.39 x 0.1825 = 244,823.28-ton/year

In the pollutant transport from Segment 1 to Segment 2, the TP load used for input into Segment 2 was 1,912.52-lb/day TP as 0.075-mg/L TP. The TSS load used for input into Segment 2 was 217,817.06-ton/year TSS as 46.7-mg/L TSS. Table 2-A summarizes the Segment 2 tributaries and the direct dischargers to the Middle Snake River and demonstrates that beneficial uses will be met if point source and nonpoint source allocations are met by Year 2010.

Table 2-A. Segment 2 Allocations for TP and TSS

TP SOURCES	TP lb/day	SEASONALITY LOADS, lb/day TP			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Total Load at Pillar Falls	1,912.52	1,896.96	1,912.52	1,912.52	1,912.52
NPS (Ag, Graze, Private, Corridor)	86.13	86.13	86.13	86.13	86.13
FERC, LAFs, CFOs	0.00	0.00	0.00	0.00	0.00
Stormwater – Construction Activities	1.76	1.76	1.76	1.76	1.76
Warm Creek TMDL (See bottom)	126.02	126.02	126.02	126.02	126.02
Rock Creek TMDL (See bottom)	118.53	118.53	118.53	118.53	118.53
Crystal Springs TMDL (See bottom)	197.92	197.92	197.92	197.92	197.92
Alpheus Creek TMDL	0.11	0.11	0.11	0.11	0.11
Ellison Springs TMDL	0.14	0.14	0.14	0.14	0.14
East Perrine Coulee	15.80	15.80	15.80	15.80	15.80
Main Perrine Coulee	5.90	5.90	5.90	5.90	5.90
West Perrine Coulee	1.40	0.00	1.40	1.40	1.40
43 Drain	0.20	0.00	0.20	0.20	0.20
Jerome Golf Course Drain	4.20	0.00	4.20	4.20	4.20
30 Drain	3.30	0.00	3.30	3.30	3.30
LQ/LS Drain	16.30	16.30	16.30	16.30	16.30
LS2/39A Drain	2.80	2.80	2.80	2.80	2.80
N42 Drain	4.80	0.00	4.80	4.80	4.80
N42 Drain (Rim)	5.40	0.00	5.40	5.40	5.40
39 Drain	2.60	0.00	2.60	2.60	2.60
GAP-104 Canyon Springs FH	12.10	12.10	12.10	12.10	12.10
City of Twin Falls POTW	710.00	710.00	710.00	710.00	710.00
Unaccounted Springs and Seeps	16.20	16.20	16.20	16.20	16.20
Unaccounted Surface Waters	43.00	43.00	43.00	43.00	43.00
Margin of Safety	Implicit	Implicit	Implicit	Implicit	Implicit
Sub Total Load at Crystal Springs	3,287.13	3,252.27	3,287.13	3,287.13	3,287.13
Sub Total Concentration at CS	0.111	0.110	0.111	0.111	0.111
TP Export Loss + Attenuation	-1,065.03	-1,053.74	-1,065.03	-1,065.03	-1,065.03
Total Load at Crystal Springs	2,222.10	2,198.54	2,222.10	2,222.10	2,222.10
Total Load as mg/L TP	0.075	0.074	0.075	0.075	0.075
TSS SOURCES	TSS ton/year	SEASONALITY LOADS, ton/year TSS			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Total Load at Pillar Falls	217,817.06	216,298.66	217,817.06	217,817.06	217,817.06
NPS (Ag, Graze, Private, Corridor)	1,757.75	1,757.75	1,757.75	1,757.75	1,757.75
FERC, LAFs, CFOs	0.00	0.00	0.00	0.00	0.00
Stormwater – Construction Activities	35.87	35.87	35.87	35.87	35.87
Warm Creek TMDL (See bottom)	11,959.13	11,959.13	11,959.13	11,959.13	11,959.13
Rock Creek TMDL (See bottom)	11,248.64	11,248.64	11,248.64	11,248.64	11,248.64
Crystal Springs TMDL (See bottom)	18,782.68	18,782.68	18,782.68	18,782.68	18,782.68
Alpheus Creek TMDL	1.28	1.28	1.28	1.28	1.28
Ellison Springs TMDL	1.66	1.66	1.66	1.66	1.66

TSS SOURCES	TSS ton/year	SEASONALITY LOADS, ton/year TSS			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4
East Perrine Coulee	1,497.20	1,497.20	1,497.20	1,497.20	1,497.20
Main Perrine Coulee	560.10	560.10	560.10	560.10	560.10
West Perrine Coulee	129.40	0.00	129.40	129.40	129.40
43 Drain	16.40	0.00	16.40	16.40	16.40
Jerome Golf Course Drain	398.00	0.00	398.00	398.00	398.00
30 Drain	312.00	0.00	312.00	312.00	312.00
LQ/LS Drain	1,550.90	1,550.90	1,550.90	1,550.90	1,550.90
LS2/39A Drain	270.10	270.10	270.10	270.10	270.10
N42 Drain	452.20	0.00	452.20	452.20	452.20
N42 Drain (Rim)	518.70	0.00	518.70	518.70	518.70
39 Drain	244.00	244.00	244.00	244.00	244.00
GAP-104 Canyon Springs FH	58.00	58.00	58.00	58.00	58.00
City of Twin Falls POTW	146.40	146.40	146.40	146.40	146.40
Unaccounted Springs and Seeps	191.70	191.70	191.70	191.70	191.70
Unaccounted Surface Waters	4,076.70	4,076.70	4,076.70	4,076.70	4,076.70
Margin of Safety	Implicit	Implicit	Implicit	Implicit	Implicit
Sub Total Load at Crystal Springs	272,025.87	268,680.77	272,025.87	272,025.87	272,025.87
Sub Total Load as mg/L TSS	50.3	49.7	50.3	50.3	50.3
TSS Export Loss + Attenuation	-27,202.59	-26,868.08	-27,202.59	-27,202.59	-27,202.59
Total Load at Crystal Springs	244,823.28	241,812.69	244,823.28	244,823.28	244,823.28
Total Load as mg/L TSS	45.3	44.7	45.3	45.3	45.3

NPS = Nonpoint sources for agriculture, grazing, and private ground. TP = Total phosphorus. TSS = Total suspended solids. Qtr = Quarter. FERC = Hydropower facilities. LAFs = Land application facilities. CFOs = Confined feeding operations. FH = Fish hatchery. FP = Fish processor.

10.2.1 WARM CREEK TMDL - (Segment 2 of Middle Snake River)

Warm Creek is a springfed system with nonpoint sources and point sources. Warm Creek was not listed in the 1998 303(d) list but was assessed as part of the Upper Snake Rock TMDL assessment process. Part of that assessment demonstrated that Warm Creek was being fed from Warm Springs, Alpheus Creek, Sunnybrook Springs, Blue Lakes Springs, and groundwater wells. The load allocations for Warm Creek are defined as follows based on mean flows. The equivalent pollutant concentrations are 0.100-mg/L TP and 52.0-mg/L TSS.

Warm Creek: Load Capacities for TP and TSS
TP = 233.8 cfs x 0.100-mg/L TP x 5.39 = 126.02-lb/day
TSS = 233.8 cfs x 52.0-mg/L TSS x 5.39 x 0.1825 = 11,959.13-ton/year

Table 2-B summarizes the tributaries and the direct dischargers to Warm Creek. Table 2-B indicates that the beneficial uses for Warm Creek will be met if the point source and nonpoint source allocations are met by Year 2010. It is noted that in the Upper Snake Rock TMDL, the allocations described in Table 108 (pp 220-221) do not combine the various sources into one discharge, as they are presently constituted. This is due to modifications done on the facility over the last 5 years. See Section 4.0 in this document for a discussion on the adjustments made to the load allocations on the Warm Creek TMDL. Warm Creek resides strictly on Pristine Springs' property. Therefore, its nonpoint source component was adjusted between the point source and nonpoint source portions.

EPA EXHIBIT # 18

ADMINISTRATIVE RECORD # 71

Department of Environmental Quality Working Principles and Policies for the 2008 Integrated (303[d]/305[b]) Report

Fish Sampling

State of Idaho
Department of Environmental Quality
1410 N Hilton
Boise, Idaho 83706

May 22, 2009

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Table of Contents

Introduction

This document presents the working principles and policies used by the Department of Environmental Quality (DEQ) to compile the *2008 Integrated Report*, the combined list that shows impaired waters and the current status of state waters. Topics addressed by these principles and policies include the following:

- Environmental Protection Agency (EPA) requirements for the Integrated Report
- The role of public comment in the Integrated Report
- The five sections of the Integrated Report
- Relevant state policies affecting the development of the Integrated Report
- Opportunities for public comment on the 2008 Integrated Report

Note: These principles and policies do not supersede *Idaho's Water Body Assessment Guidance, Second Edition* (WBAG II [Grafe, et al. 2002]); they provide additional guidance for determining beneficial use support status and water quality standards exceedances for listing of impaired waters.

The Integrated List is a Federal Requirement

The Clean Water Act (CWA) requires the state to prepare a report, listing (a) those waters that are impaired and (b) the current conditions of all state waters. The first list is called the §*303(d)* list, and the second is called the §*305(b)* list. Both lists are named in accordance with the sections of the CWA where they are defined; together they are known as the *Integrated Report* (Figure 1).

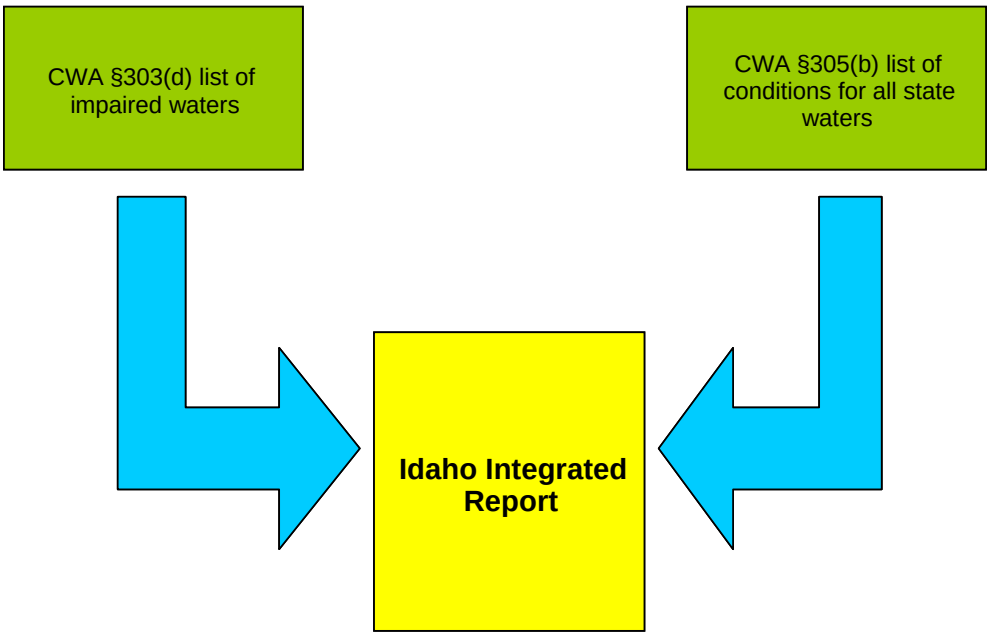

Figure 1. Components of the Integrated Report.

2008 Integrated Report: Section 4a EPA Approved TMDLs

2008 Integrated Report: Section 4a EPA Approved TMDLs

Bear River

16010102 Central Bear — TMDL Approval Date

BEAR RIVER/MALAD RIVER SUBBASIN ASSESSMENT AND TMDL PLAN — **6/29/2006**

ID16010102BR001_05	Bear River - Idaho/Wyoming border to railroad bridge (T14N,	30.87	MILES

Phosphorus (Total)

Total Suspended Solids (TSS)

ID16010102BR003_04	Thomas Fork - Idaho/Wyoming border to mouth	30.09	MILES

Nitrogen (Total)

Phosphorus (Total)

Total Suspended Solids (TSS)

ID16010102BR008_02	Sheep Creek - source to mouth	22.65	MILES

Phosphorus (Total)

Total Suspended Solids (TSS)

ID16010102BR008_03	Sheep Creek - source to mouth	2.64	MILES

Phosphorus (Total)

Refer to Bear River/Malad River Subbasin Assessment and TMDL Plan (March 2006).

Sedimentation/Siltation

16010201 Bear Lake — TMDL Approval Date

BEAR RIVER/MALAD RIVER SUBBASIN ASSESSMENT AND TMDL PLAN — **6/29/2006**

ID16010201BR001_0L	Alexander Reservoir (Bear River)	1013.13	ACRES

Phosphorus (Total)

Total Suspended Solids (TSS)

ID16010201BR002_02a	Sulpher Canyon - Headwaters (middle and S.Sulpher) to mout	12.23	MILES

Phosphorus (Total)

Total Suspended Solids (TSS)

ID16010201BR002_02c	lower Skinner Creek	4.4	MILES

Phosphorus (Total)

ID17040211SK012_03	Birch Creek - source to mouth	6.67	MILES

Fecal Coliform

Phosphorus (Total)

ID17040211SK012_04	Birch Creek - source to mouth	10.82	MILES

Fecal Coliform

Phosphorus (Total)

17040212 Upper Snake-Rock — TMDL Approval Date

BILLINGSLEY CREEK — 8/23/1993

ID17040212SK033_02	Billingsley Creek - source to mouth	8.13	MILES

Phosphorus (Total)

Total Suspended Solids (TSS)

SNAKE RIVER WATERSHED, MIDDLE — 4/25/1997

ID17040212SK001_07	Snake River - Lower Salmon Falls to Clover Creek	26.62	MILES

Phosphorus (Total)

ID17040212SK007_07	Snake River - Rock Creek to Box Canyon Creek	18.3	MILES

Phosphorus (Total)

ID17040212SK020_07	Snake River - Milner Dam to Twin Falls	21.29	MILES

Phosphorus (Total)

SNAKE-ROCK, UPPER — 8/25/2000

ID17040212SK000_02	Unclassified Waters in CU 17040212	392.31	MILES

Fecal Coliform

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK001_07	Snake River - Lower Salmon Falls to Clover Creek	26.62	MILES

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK005_02	Snake River - Box Canyon Creek to Lower Salmon Falls	17.39	MILES

Fecal Coliform

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK016_04	Rock Creek - Fifth Fork Rock Creek to river mile 25 (T11S, R	8.31	MILES

Fecal Coliform

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK019_07	Snake River - Twin Falls to Rock Creek	11.87	MILES

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK020_07	Snake River - Milner Dam to Twin Falls	21.29	MILES

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK022_03	Dry Creek - source to mouth	9.85	MILES

Fecal Coliform

ID17040212SK023_02	West Fork Dry Creek - source to mouth	10.72	MILES

Fecal Coliform

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK027_02	Vinyard Creek - Vinyard Lake to mouth	10.81	MILES

Phosphorus (Total)

ID17040212SK028_02	Clear Lakes	22.24	ACRES

Phosphorus (Total)

Sedimentation/Siltation

ID17040212SK033_02	Billingsley Creek - source to mouth	8.13	MILES

Fecal Coliform

Phosphorus (Total)

Sedimentation/Siltation

EPA EXHIBIT # 19

ADMINISTRATIVE RECORD # 72

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Office of Water
Water Quality Trading Policy
January 13, 2003

I. Background and Purpose of the Policy

The Clean Water Act (CWA)[1] was enacted in 1972 to restore and maintain the chemical, physical, and biological integrity of the nation's waters. It established a national policy that called for the discharge of pollutants to be eliminated and established interim goals for protecting fish, wildlife and recreational uses. The CWA also established a national policy for development and implementation of programs so the goals of the Act could be met through controls of point and nonpoint sources of pollution. Congress recognized and preserved the primary responsibilities and rights of the States to prevent, reduce and eliminate pollution.

The application of technology and water quality based requirements through the National Pollutant Discharge Elimination System (NPDES) permit program has achieved and remains critical to success in controlling point source pollution and restoring the nation's waters. Despite these accomplishments approximately 40% of the rivers, 45% of the streams and 50% of the lakes that have been assessed still do not support their designated uses[2]. Sources of pollution such as urban storm water, agricultural runoff and atmospheric deposition continue to threaten our nation's waters. Nutrient and sediment loading from agriculture and storm water are significant contributors to water quality problems such as hypoxia in the Gulf of Mexico and decreased fish populations in Chesapeake Bay. Population growth and development place increasing demands on the environment making it more difficult to achieve and maintain water quality standards.

Finding solutions to these complex water quality problems requires innovative approaches that are aligned with core water programs. Water quality trading is an approach that offers greater efficiency in achieving water quality goals on a watershed basis. It allows one source to meet its regulatory obligations by using pollutant reductions created by another source that has lower pollution control costs. Trading capitalizes on economies of scale and the control cost differentials among and between sources.

The United States Environmental Protection Agency (EPA) believes that market-based approaches such as water quality trading provide greater flexibility and have potential to achieve water quality and environmental benefits greater than would otherwise be achieved under more traditional regulatory approaches. Market-based programs can

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1 Federal Water Pollution Control Act (Public Law 92-500, as amended), 33 U.S.C. Sec. 1251, et. seq.
2 About 33 percent of the nation's waters have been assessed by States and tribes pursuant to Section 305(b) of the Clean Water Act (National Water Quality Inventory: 2000 Report, EPA). The proportion of non-assessed water that do not meet designated uses is likely lower since assessments tend to be focused in known problem areas.

achieve water quality goals at a substantial economic savings. EPA estimates that in 1997 annual private point source control costs were about $14 billion and public point source costs were about $34 billion[3]. The National Cost to Implement Total Maximum Daily Loads (TMDLs) Draft Report estimates that flexible approaches to improving water quality could save $900 million dollars annually compared to the least flexible approach (EPA, August 2001). Nitrogen trading among publicly owned treatment works in Connecticut that discharge into Long Island Sound is expected to achieve the required reductions under a TMDL while saving over $200 million dollars in control costs. Market-based approaches can also create economic incentives for innovation, emerging technology, voluntary pollution reductions and greater efficiency in improving the quality of the nation's waters.

The purpose of this policy is to encourage states, interstate agencies and tribes to develop and implement water quality trading programs for nutrients, sediments and other pollutants where opportunities exist to achieve water quality improvements at reduced costs. More specifically, the policy is intended to encourage voluntary trading programs that facilitate implementation of TMDLs, reduce the costs of compliance with CWA regulations, establish incentives for voluntary reductions and promote watershed-based initiatives. A number of states are in various stages of developing trading programs. This policy provides guidance for states, interstate agencies and tribes to assist them in developing and implementing such programs.

This policy addresses issues left open by and limitations encountered implementing projects and programs under EPA's January 1996 Effluent Trading In Watersheds Policy and May 1996 Draft Framework for Watershed-Based Trading ("Draft Framework"). This policy should be given precedence over any inconsistencies with the Draft Framework.

This policy draws upon lessons from a number of recent pilot trading projects and state experiences in developing water quality trading programs. These initiatives demonstrate how trading can occur under the CWA and existing federal regulations. They illustrate the importance of voluntary watershed-based partnerships, inter-agency cooperation and public participation in implementation of trading programs. They show that flexible market-based approaches can facilitate states and tribes finding solutions to complex and diverse water quality and socioeconomic issues. These efforts have also highlighted the importance of keeping transaction and administrative costs manageable while retaining accountability. The lessons learned from these efforts have informed the development of this policy.

This policy describes various requirements of the CWA and implementing regulations that are relevant to water quality trading, including: requirements to obtain permits (Sections 402 and 404), antibacksliding provisions (Section 303(d)(4) and Section 402(o)), the development of water quality standards including antidegradation policy (Section 303(c)), federal NPDES permit regulations (40 CFR Parts 122, 123 and 124), TMDLs (Section 303d(1)) and water quality management plans (40 CFR Part 130).

3 A Retrospective Assessment of the Costs of the Clean Water Act: 1972 – 1997 (EPA October, 2000).

These CWA provisions and regulations contain legally binding requirements. This policy does not substitute for those provisions or requirements. In addition, this policy identifies general elements and provisions that EPA believes are important for creating credible water quality trading programs.

When EPA makes a decision with regard to any particular permit, TMDL, water quality standards or water quality management plan that includes provisions for trading to occur, it will make each decision on a case-by-case basis guided by the applicable requirements of the CWA and implementing regulations and the specific facts and circumstances involved.

II. Trading Objectives

EPA supports implementation of water quality trading by states, interstate agencies and tribes where trading:

A. Achieves early reductions and progress towards water quality standards pending development of TMDLs for impaired waters.

B. Reduces the cost of implementing TMDLs through greater efficiency and flexible approaches.

C. Establishes economic incentives for voluntary pollutant reductions from point and nonpoint sources within a watershed.

D. Reduces the cost of compliance with water quality-based requirements.

E. Offsets new or increased discharges resulting from growth in order to maintain levels of water quality that support all designated uses.

F. Achieves greater environmental benefits than those under existing regulatory programs. EPA supports the creation of water quality trading credits in ways that achieve ancillary environmental benefits beyond the required reductions in specific pollutant loads, such as the creation and restoration of wetlands, floodplains and wildlife and/or waterfowl habitat.

G. Secures long-term improvements in water quality through the purchase and retirement of credits by any entity.

H. Combines ecological services to achieve multiple environmental and economic benefits, such as wetland restoration or the implementation of management practices that improve water quality and habitat.

III. Water Quality Trading Policy Statement

A. CWA Requirements. Water quality trading and other market-based programs must be consistent with the CWA.

B. Trading Areas. All water quality trading should occur within a watershed or a defined area for which a TMDL has been approved. Establishing defined trading areas that coincide with a watershed or TMDL boundary results in trades that affect the same water body or stream segment and helps ensure that water quality standards are maintained or achieved throughout the trading area and contiguous waters.

C. Pollutants and Parameters Traded. EPA supports trading that involves nutrients (e.g., total phosphorus and total nitrogen) or sediment loads. In addition, EPA recognizes that trading of pollutants other than nutrients and sediments has the potential to improve water quality and achieve ancillary environmental benefits if trades and trading programs are properly designed. EPA believes that such trades may pose a higher level of risk and should receive a higher level of scrutiny to ensure that they are consistent with water quality standards. EPA may support trades that involve pollutants other than nutrients and sediments on a case-by-case basis where prior approval is provided through an NPDES permit, a TMDL or in the context of a watershed plan or pilot trading project that is supported by a state, tribe or EPA.

EPA also supports cross-pollutant trading for oxygen-related pollutants where adequate information exists to establish and correlate impacts on water quality. Reducing upstream nutrient levels to offset a downstream biochemical oxygen demand or to improve a depressed in-stream dissolved oxygen level are examples of cross-pollutant trading.

EPA does not currently support trading of pollutants considered by EPA to be persistent bioaccumulative toxics (PBTs). EPA would consider a limited number of pilot projects over the next two to three years to obtain more information regarding trading of PBTs. EPA believes pilot projects may be appropriate where the predominant loads do not come from point sources, trading achieves a substantial reduction of the PBT traded and where trading does not cause an exceedance of an aquatic life or human health criterion. Based on the findings of these pilot projects, EPA will consider making revisions to its policy.

Where state or tribal water quality standards allow for mixing zones, EPA does not support any trading activity that would exceed an acute aquatic life criteria within a mixing zone or a chronic aquatic life or human health criteria at the edge of a mixing zone using design flows specified in the water quality standards.

D. Baselines for Water Quality Trading. As explained below, the baselines for generating pollution reduction credits should be derived from and consistent with

water quality standards. The term pollution reduction credits ("credits"), as used in this policy, means pollutant reductions greater than those required by a regulatory requirement or established under a TMDL.

For example, where a TMDL has been approved or established by EPA, the applicable point source waste load allocation or nonpoint source load allocation would establish the baselines for generating credits. For trades that occur where water quality fully supports designated uses, or in impaired waters prior to a TMDL being established, the baseline for point sources should be established by the applicable water quality based effluent limitation, a quantified performance requirement or a management practice derived from water quality standards. In these scenarios the baseline for nonpoint sources should be the level of pollutant load associated with existing land uses and management practices that comply with applicable state, local or tribal regulations.

E. When Trading May Occur.

1. Trading to Maintain Water Quality Standards. Trading may be used to maintain high water quality in waters where water quality standards are attained, such as by compensating for new or increased discharges of pollutants.

2. Pre-TMDL Trading In Impaired Waters. EPA supports pre-TMDL trading in impaired waters to achieve progress towards or the attainment of water quality standards. EPA believes this may be accomplished by individual trades that achieve a net reduction of the pollutant traded or by watershed-scale trading programs that reduce loadings to a specified cap supported by baseline information on pollutant sources and loadings.

EPA also supports pre-TMDL trading that achieves a direct environmental benefit relevant to the conditions or causes of impairment to achieve progress towards restoring designated uses where reducing pollutant loads alone is not sufficient or as cost-effective.

If pre-TMDL trading does not result in the attainment of applicable water quality standards, EPA expects a TMDL to be developed. After a TMDL has been approved or established by EPA, the reductions made to generate credits for pre-TMDL trading may no longer be adequate to generate credits under the TMDL. This will depend on the remaining level of reduction needed to achieve water quality standards and, where applicable, the allocation of point and nonpoint source pollutant loads established by the TMDL.

3. TMDL Trading. Trades and trading programs in impaired waters for which a TMDL has been approved or established by EPA should be consistent with the assumptions and requirements upon which the TMDL is established. EPA encourages the inclusion of specific trading provisions in the TMDL itself, in NPDES permits, in watershed plans and the continuing planning process.

EPA does not support any trading activity that would delay implementation of a TMDL approved or established by EPA or that would cause the combined point source and nonpoint source loadings to exceed the cap established by a TMDL.

4. Technology-Based Trading. EPA does not support trading to comply with existing technology-based effluent limitations except as expressly authorized by federal regulations. Existing technology-based effluent guidelines for the iron and steel industry allow intraplant trading of conventional, nonconventional and toxic pollutants between outfalls under certain circumstances (40 CFR 420.03).

EPA will consider including provisions for trading in the development of new and revised technology-based effluent guidelines and other regulations to achieve technology-based requirements, reduce implementation costs and increase environmental benefits.

5. Pretreatment Trading. EPA supports a municipality or regional sewerage authority developing and implementing trading programs among industrial users that are consistent with the pretreatment regulatory requirements at 40 CFR Part 403 and the municipality's or authority's NPDES permit.

6. Intra-Plant Trading. EPA supports intra-plant trading that involves the generation and use of credits between multiple outfalls that discharge to the same receiving water from a single facility that has been issued an NPDES permit.

F. Alignment With The CWA. Provisions for water quality trading should be aligned with and incorporated into core water quality programs. EPA believes this may be done by including provisions for trading in water quality management plans, the continuing planning process, watershed plans, water quality standards, including antidegradation policy and, by incorporating provisions for trading into TMDLs and NPDES permits.

When developing water quality trades and trading programs, states and tribes should, at a minimum, take into account the following provisions of the CWA and implementing regulations:

1. Requirements to Obtain Permits. Sources and activities that are required to obtain a federal permit pursuant to Sections 402 or 404 of the CWA must do so to participate in a trade or trading program.

2. Incorporating Provisions For Trading Into Permits. In some cases, specific trades may be identified in NPDES permits, including requirements related to the control of nonpoint sources where appropriate. EPA also supports several flexible approaches for incorporating provisions for trading into NPDES permits: i) general conditions in a permit that authorize trading and describe appropriate conditions and restrictions for trading to occur, ii) the use of variable permit limits that may be adjusted up or down based on the quantity of credits generated or

used; and/or, iii) the use of alternate permit limits or conditions that establish restrictions on the amount of a point source's pollution reduction obligation that may be achieved by the use of credits if trading occurs. EPA also encourages the use of watershed general permits, where appropriate, to establish pollutant-specific limitations for a group of sources in the same or similar categories to achieve net pollutant reductions or water quality goals through trading. Watershed permits issued to point sources should include facility specific effluent limitations or other conditions that would apply in the event the pollutant cap established by the watershed permit is exceeded.

3. Public Notice, Comment and Opportunity For Hearing. Notice, comment and opportunity for hearing must be provided for all NPDES permits (40 CFR 124). NPDES permits and fact sheets should describe how baselines and conditions or limits for trading have been established and how they are consistent with water quality standards. EPA does not expect that an NPDES permit would need to be modified to incorporate an individual trade if that permit contains authorization and provisions for trading to occur and the public was given notice and an opportunity to comment and/or attend a public hearing at the time the permit was issued.

4. Consistency With Standard Methods. Where methods and procedures (e.g., sampling protocols, monitoring frequencies) are specified by federal regulations or in NPDES permits, they should continue to be used where applicable for measuring compliance for point sources that engage in trading. EPA believes this is necessary to provide clear and consistent standards for measuring compliance and to ensure that appropriate enforcement action can be taken.

5. Protecting Designated Uses. EPA does not support any use of credits or trading activity that would cause an impairment of existing or designated uses, adversely affect water quality at an intake for drinking water supply or that would exceed a cap established under a TMDL.

6. Antibacksliding. EPA believes that the antibacksliding provisions of Section 303(d)(4) of the CWA will generally be satisfied where a point source increases its discharge through the use of credits in accordance with alternate or variable water quality based effluent limitations contained in an NPDES permit, in a manner consistent with provisions for trading under a TMDL, or consistent with the provisions for pre-TMDL trading included in a watershed plan.

These antibacksliding provisions will also generally be satisfied where a point source generates pollution reduction credits by reducing its discharge below a water quality based effluent limitation (WQBEL) that implements a TMDL or is otherwise established to meet water quality standards and it later decides to discontinue generating credits, provided that the total pollutant load to the

receiving water is not increased, or is otherwise consistent with state or tribal antidegradation policy.

7. Antidegradation. Trading should be consistent with applicable water quality standards, including a state's and tribe's antidegradation policy established to maintain and protect existing instream water uses and the level of water quality necessary to support them, as well as high quality waters and outstanding national resource waters (40 CFR 131.12). EPA recommends that state or tribal antidegradation policies include provisions for trading to occur without requiring antidegradation review for high quality waters. EPA does not believe that trades and trading programs will result in "lower water quality" as that term is used in 40 CFR 131.12(a)(2), or that antidegradation review would be required under EPA's regulations when the trades or trading programs achieve a no net increase of the pollutant traded and do not result in any impairment of designated uses.

G. Common Elements of Credible Trading Programs. EPA believes that, in addition to including provisions to be consistent with the CWA, trading programs should include the following general elements to be credible and successful:

1. Legal Authority and Mechanisms. Clear legal authority and mechanisms are necessary for trading to occur. EPA believes the CWA provides authority for EPA, states and tribes to develop a variety of programs and activities to control pollution, including trading programs. The CWA and federal regulations provide authority to incorporate provisions for trading into NPDES permits issued to point sources and for trading under TMDLs that include provisions for trading to occur.

In addition, states and tribes should use specific legal mechanisms to facilitate trading. Provisions for trading may be established through various mechanisms, including: legislation, rule making, incorporating provisions for trading into NPDES permits and establishing provisions for trading in TMDLs or watershed plans. These provisions may incorporate or be supplemented by private contracts between sources or third-party contracts where the third party provides an indemnification or enforcement function.

2. Units of Trade. Clearly defined units of trade are necessary for trading to occur. Pollutant specific credits are examples of tradable units for water quality trading. These may be expressed in rates or mass per unit time as appropriate to be consistent with the time periods that are used to determine compliance with NPDES permit limitations or other regulatory requirements.

3. Creation and Duration of Credits. Credits should be generated before or during the same period they are used to comply with a monthly, seasonal or annual limitation or requirement specified in an NPDES permit. Credits may be generated as long as the pollution controls or management practices are functioning as expected.

4. Quantifying Credits and Addressing Uncertainty. Standardized protocols are necessary to quantify pollutant loads, load reductions, and credits. States and tribes should develop procedures to account for the generation and use of credits in NPDES permits and discharge monitoring reports in order to track the generation and use of credits between sources and assess compliance.

Where trading involves nonpoint sources, states and tribes should adopt methods to account for the greater uncertainty in estimates of nonpoint source loads and reductions. Greater uncertainty in nonpoint source estimates is due to several factors including but not limited to variability in precipitation, variable performance of land management practices, time lag between implementation of some practices and full performance, and the effect of soils, cover and slope on pollutant load delivery to receiving waters.

EPA supports a number of approaches to compensate for nonpoint source uncertainty. These include monitoring to verify load reductions, the use of greater than 1:1 trading ratios between nonpoint and point sources, using demonstrated performance values or conservative assumptions in estimating the effectiveness of nonpoint source management practices, using site- or trade-specific discount factors, and retiring a percentage of nonpoint source reductions for each transaction or a predetermined number of credits. Where appropriate, states and tribes may elect to establish a reserve pool of credits that would be available to compensate for unanticipated shortfalls in the quantity of credits that are actually generated.

The site-specific procedures and protocols used in water quality trading programs that involve agriculture and forestry operations should be developed by states and tribes in consultation with United States Department of Agriculture (USDA) agencies. Those procedures should estimate nutrient or sediment load delivery to the stream segment, water body or watershed where trading occurs. Numerous methods and procedures to determine nutrient and sediment load reductions associated with conservation practices on agricultural and forest land have been developed or used by the USDA agencies, including the Natural Resources Conservation Service, Forest Service, Agricultural Research Service and the Cooperative State, Research, Education and Extension Service. Some of these methods may be applied to water quality trading.

As an example, the Revised Universal Soil Loss Equation (RUSLE) may be used in some locations to estimate the sediment yield at the end of a slope in agricultural settings. The sediment yield at the end of a slope coupled with an appropriate method to estimate sediment delivery to the receiving waters can provide a reasonable estimate of sediment load and load reductions. Representative soil sampling to determine the phosphorus content of soils can be used with this approach to estimate non-soluble sediment-bound phosphorus loads and load reductions. Different methods are appropriate to estimate soluble phosphorus and nitrogen loads and load reductions.

EPA and the USDA are working with other agencies to evaluate existing methods and to develop improved methods and procedures for estimating loads from agricultural and forestry lands. More precise estimations will be possible as technologies improve and new technologies are developed.

For storm water runoff other than agriculture, EPA recommends monitoring or modeling to estimate pollutant loads and load reductions. EPA believes this may be based on local hydrology and actual data or pollutant loading factors that relate land use patterns, percent imperviousness or percent disturbed land and controls or management practices in a watershed to per acre or per unit pollutant loads, where other methods are not specified in a permit or regulation.

5. Compliance and Enforcement Provisions. Mechanisms for determining and ensuring compliance are essential for all trades and trading programs. These may include a combination of record keeping, monitoring, reporting and inspections. Compliance audits should be conducted frequently enough to ensure that a high level of compliance is maintained across the program. States and tribes should establish clear enforceable mechanisms consistent with NPDES regulations that ensure legal accountability for the generation of credits that are traded. In the event of default by another source generating credits, an NPDES permittee using those credits is responsible for complying with the effluent limitations that would apply if the trade had not occurred. EPA also recommends that states and tribes consider providing periodic accounting and reconciliation periods and establishing appropriate enforcement provisions for failure to generate the quantity of credits that are traded.

EPA recommends that states and tribes consider the role of compliance history in determining source eligibility to participate in trading.

EPA recommends that states and tribes consider including provisions to address situations where nonpoint source controls and management practices that are implemented to generate credits fail due to extreme weather conditions or other circumstances that are beyond the control of the source.

6. Public Participation And Access To Information. EPA supports public participation at the earliest stages and throughout the development of water quality trading programs to strengthen program effectiveness and credibility.

Easy and timely public access to information is necessary for markets to function efficiently and for the public to monitor trading activity. EPA encourages states and tribes to make electronically available to the public information on the sources that trade, the quantity of credits generated and used on a watershed basis, market prices where available, and delineations of watershed and trading boundaries. This information is necessary to identify potential trading

opportunities, allow easy aggregation of credits, reduce transaction costs and establish public credibility.

7. Program Evaluations. Periodic assessments of environmental and economic effectiveness should be conducted and program revisions made as needed. Environmental evaluations should include ambient monitoring to ensure impairments of designated uses (including existing uses) do not occur and to document water quality conditions. Studies should be performed to quantify nonpoint source load reductions, validate nonpoint source pollutant removal efficiencies and determine whether the anticipated water quality objectives have been achieved. Economic evaluations should include the number and type of trades, the price paid for pollutant reduction credits, transaction costs, the costs incurred to administer the program, and where possible any net cost savings resulting from trading.

The results of program evaluations should be made available to the public. An opportunity for comment should also be provided on changes to the program as necessary to ensure that water quality objectives and economic efficiencies are achieved, and that trading does not result in an impairment of designated uses (including existing uses).

H. EPA's Oversight Role. States and tribes are encouraged to consult with EPA throughout development of trading programs to facilitate alignment with the CWA. EPA has various oversight responsibilities under the CWA, including approval or establishment of TMDLs, approval of revisions to state or tribal water quality standards, review of NPDES permits and provisions for reviewing and making recommendations regarding revisions to a state's or tribe's water quality management plans through the continuing planning process. In general, EPA does not believe that the development and implementation by states and tribes of trading programs consistent with the provisions of this policy necessarily warrant a higher level of scrutiny under these oversight authorities than is appropriate for activities not involving trading. However, where questions or concerns arise, EPA will use its oversight authorities to ensure that trades and trading programs are fully consistent with the CWA and its implementing regulations.

EPA EXHIBIT # 20

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United States Environmental Protection Agency

Office of Wastewater Management
Water Permits Division
EPA 833-R-07-004

Water Quality Trading Toolkit for Permit Writers

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Foreword

EPA is pleased to issue the Water Quality Trading Toolkit, the first-ever how-to-trade manual with real-world examples. In January 2003, EPA released the National Water Quality Trading Policy which laid out a framework for trading under the Clean Water Act. In 2004 we published the Water Quality Trading Assessment Handbook to help users determine whether trading is environmentally viable and financially attractive in a watershed. This Toolkit builds upon the two earlier documents and provides more detail regarding actual design and implementation of trading programs. This document will not only help permit writers incorporate trading into National Pollutant Discharge Elimination System (NPDES) permits but is a guide for anyone interested in establishing a water quality trading program in their watershed. We look forward to hearing about the innovative trading programs generated by this useful resource.

Benjamin H. Grumbles
Assistant Administrator for Water

Disclaimer

This guidance expresses the U.S. Environmental Protection Agency's (EPA) support for implementation of water quality trading through National Pollutant Discharge Elimination System (NPDES) permitting. Implementation of water quality trading will be governed by existing requirements of the Clean Water Act (CWA) and EPA's NPDES implementing regulations. Those CWA provisions and regulations contain legally binding requirements. This document does not substitute for those provisions or regulations. The recommendations in this guidance are not binding; the permitting authority may consider other approaches consistent with the CWA and EPA regulations. The use of non-mandatory words like "should," "could," "would," "may," "might," "recommend," "encourage," "expect," and "can" in this guidance mean solely that something is suggested or recommended, and not that it is legally required, or that the suggestion or recommendation imposes legally binding requirements, or that following the suggestion or recommendation necessarily creates an expectation of EPA approval. When EPA makes a permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the particular situation. EPA may change this guidance in the future.

Water Quality Trading Toolkit for Permit Writers

August 2007

Introduction

For more than a decade, the U.S. Environmental Protection Agency (EPA) has promoted and supported the concept of water quality trading as an innovative approach for achieving water quality standards with flexibility and economic efficiency. A variety of pilot programs and projects have generated useful information on how to conduct water quality trading, yet the number of actual trades that have occurred is relatively small. EPA believes that as awareness of the potential benefits of water quality trading grows, National Pollution Discharge Elimination System (NPDES) permittees will be more interested in water quality trading and request permitting authorities to incorporate trading provisions into their permits. As a result, the process for crafting water quality trading programs and requirements should involve the permitting authority staff as early as possible. This will help ensure that trading programs are effective and workable and fully consistent with the implementation and compliance framework of the permitting authority's NPDES program.

This *Water Quality Trading Toolkit for Permit Writers* (Toolkit) is intended to facilitate trading by providing NPDES permitting authorities with the tools they need to facilitate trading and to authorize and incorporate trading in NPDES permits. Although the Toolkit primarily targets state, tribal and EPA NPDES permitting authorities, it might also be useful to other stakeholders interested in water quality trading and the NPDES permitting process. Users of the Toolkit should have an existing, fundamental understanding of both water quality trading concepts and the NPDES permitting process. To ensure consistency and minimize redundancy, the Toolkit refers users to existing EPA guidance on water quality trading and NPDES permit development and issuance whenever possible.

This guidance is based on EPA's *Water Quality Trading Policy* (Trading Policy) published in January 2003. The Trading Policy was written on the assumption that, if a total maximum daily load (TMDL) were in place, all trading partners would be covered by the TMDL. In this case, wasteload allocations (WLAs) and load allocations (LAs) under the TMDL form the baseline for trading. In all cases, permits must be designed to meet water quality standards as required under Clean Water Act (CWA) section 301(b)(1)(C). Inclusion of trading provisions in NPDES permits should facilitate meeting this requirement.

Water quality trading programs are necessarily tailored to meet the needs of the dischargers and stakeholders in the watersheds for which they are developed. Because each watershed is unique, water quality trading programs may exist in many different forms. It would be impracticable and cumbersome to attempt to cover in this document every possible type of program that might be developed to meet an individual watershed's needs. This Toolkit attempts to equip program developers and permit writers with an understanding of the issues involved in water quality trading and the types of program characteristics that are best suited to address them. The fact that a particular trading program design or element is not represented in the examples presented in the Toolkit does not necessarily mean that it is not appropriate or would not be supported by EPA.

Toolkit Organization and Instructions

With the permitting authority as the primary target user, the Toolkit first addresses broad water quality trading policy issues and then focuses on specific trading scenarios. Water quality trading scenarios fall into two major categories: (1) point source–point source trading and (2) point source–nonpoint source trading. Point source–point source trading includes single point source–single point source trading, multiple facility point source trading, and point source credit exchanges. Point source–nonpoint source trading includes single point source–nonpoint source trading and nonpoint source credit exchanges.

The first section of the Toolkit, *Fundamentals of Water Quality Trading*, addresses broad water quality trading policy issues; this section applies to all Toolkit users. Within the Fundamentals section, the *Overview of Water Quality Trading* section addresses the role of NPDES permitting authorities in water quality trading and the legal and policy framework for water quality trading. The *Essential Trading Information for Permit Writers* section discusses specific water quality trading issues relevant to NPDES permitting authorities. Issues addressed in this section include the type of pollutants to be traded, definition of a pollutant reduction credit, circumstances conducive to trading, baselines for water quality trading, trading ratios, timing and duration of credits, and the geographic scope of trades. All Toolkit users should have a thorough understanding of the policy and technical issues addressed in these sections before proceeding to the specific trading scenario sections. Understanding of the important policy and technical issues contained in the initial sections of the Toolkit is essential to prevent ineffective or inappropriate water quality trading conditions in NPDES permits. After reviewing the initial sections of the Toolkit, the user is prepared to proceed to the appropriate section of the Toolkit that focuses on a specific trading scenario. The intent is to allow the Toolkit user to review only the information that applies to the specific trading scenario of interest. The following diagram (Figure 1) is intended to help navigate the trading scenario sections of the Toolkit:

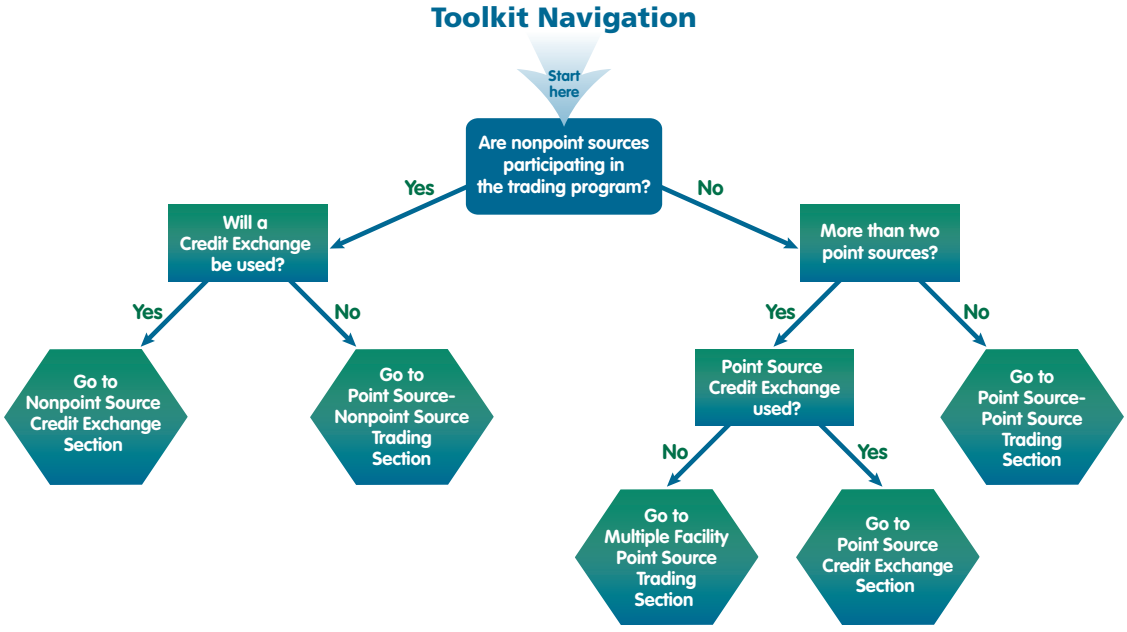

Figure 1. Toolkit navigation.

For example, a permitting authority developing conditions in a NPDES permit to authorize and facilitate trading between two single point sources would first review the Overview of Water Quality Trading and Essential Trading Information for Permit Writers sections for important policy and technical information and then carefully review the Single Point Source–Single Point Source Trading scenario for specifics pertaining to trading between two single point sources.

The Toolkit is intended to assist with developing and implementing NPDES permits that allow for water quality trading. Each trading scenario section walks NPDES permitting authorities through the normal process of developing the components of a NPDES permit and provides the tools they need to incorporate water quality trading into that process. Each section of the Toolkit contains two important components that supplement the narrative: (1) a hypothetical trading example and (2) real-world examples that apply the trading concepts discussed in the section. Each of these components of the Toolkit is presented in a unique format, as illustrated below, to ensure easy identification.

Hypothetical Examples

Hypothetical examples appear throughout each section highlighted in a blue-shaded text box.

Real-World Examples

Where applicable, each section includes either summaries of real-world examples or Web pages that provide more detailed information. These examples appear in a green-shaded text box. When actual permit provisions from these examples are available, see Appendix A for the exact permit language.

Overview of Water Quality Trading

Water quality trading is an innovative, market-based approach that if used in certain watersheds can achieve water quality standards more efficiently and at lower cost than traditional approaches. Costs to control discharges compared with runoff for a given pollutant often vary significantly in a watershed, creating the impetus for water quality trading. Through water quality trading, facilities that face higher pollutant control costs to meet their regulatory obligations can purchase pollutant reduction credits from other sources that can generate these reductions at lower cost, thus achieving the same or better overall water quality improvement. In most cases, trading takes place on a watershed level under a pollutant cap (the total pollutant load that can be assimilated by a waterbody without exceeding water quality standards) developed through the TMDL process or a similar type of water quality analysis that produces information on pollutant loadings and resulting water quality conditions (USEPA 2004).

For example, where a TMDL has been established, the baselines relative to which point sources and nonpoint sources can generate credits are their WLAs and LAs (for definitions, see glossary), respectively. To generate tradable credits, a source would need to reduce loadings below the allocation set by the TMDL. A source buying credits would be able to increase its discharge over what would otherwise be allowed, but only by the amount of the credits purchased from another source (or sources) and subject to other conditions specified in the permit and trading program. The result would be that, at a minimum, the post-trade loadings from the trading sources would be equal to or less than the loadings that would have been discharged by the sources in the absence of trading. Trading programs may also be designed to require a net reduction in loadings when trading occurs.

EPA's *2004 Water Quality Trading Assessment Handbook* notes that, in water quality trading markets, the marketable product is the *over control* of pollutant loadings. A pollutant reduction credit is the amount (mass) of pollutant reduced over a specified time period (day, month, year) that is in excess of the required reduction for a certain source. The excess pounds of pollutant reduced can be made available for a NPDES permittee to purchase as credits. It is important to note that, due to trade ratios, one pound of pollutant reduced at the seller's discharge location is not necessarily equal to one pound of pollutant reduced at the buyer's location. Therefore, for the purposes of this Toolkit, one credit will be equal to one unit of load reduction per time (lb/day) at the location of the buyer.[1] One credit may be greater or less than one unit of load reduction per time at the location of the seller.

[1] The definition of a credit may vary from program to program.

NPDES Permitting Authority Role in Water Quality Trading

EPA or an authorized state, territory, or tribe is the permitting authority for NPDES permits. When states are referenced in this document, it is meant to also include state, territorial, and tribal permitting authorities. Regardless of the entity issuing NPDES permits, the process for crafting water quality trading requirements should involve the permitting authority staff. This will help ensure that trading provisions are fully consistent with the implementation and compliance framework of the particular jurisdiction's NPDES program. The role of NPDES permitting authorities in water quality trading should include the following:

- Advising state or local entities, as they develop trading frameworks, on what is needed for NPDES programs to authorize trading
- Developing enforceable trading provisions, NPDES permit limitations and conditions that meet the requirements of the CWA and its implementing regulations, consistent with the following:
  - EPA's Trading Policy
  - State laws, regulations, and policy
  - Any applicable trading program
- Helping to develop and implement mechanisms to ensure accountability and compliance with trading requirements. Examples include the following:
  - Credit certification forms
  - Trade tracking mechanisms
  - Enforcement if permit requirements are not met
  - Review of monitoring data from credit buyers and sellers

In addition to the expertise used to develop permits and especially water quality-based effluent limits (WQBELs), the NPDES permitting authority will need an understanding of the following:

- The legal and policy framework for water quality trading
- The specific issues involved in incorporating water quality trading into NPDES permits
- The various trading scenarios and the types of sources, watersheds and pollutants for which they are appropriate

The remainder of this section briefly describes the federal legal and policy framework for water quality trading and provides examples of state regulations, policy, and guidance that establish a framework for trading or address specific aspects of trading.

Legal and Policy Framework for Water Quality Trading

Where trading is feasible, the terms of a trade will depend, in part, on the structure of a trading program or other trading requirements developed by the state or other permitting authority. These in turn must comply with federal and state rules that define the legal framework within which trading programs and requirements are developed.

Federal Law, Regulations, and Policy

The CWA, 33 United States Code (U.S.C.) section 1251, et seq. and its implementing regulations establish the legal framework within which a trading program involving regulated point sources would be developed. The NPDES regulations at Title 40 of the *Code of Federal Regulations* (CFR) 122.44(d) describe the requirements for WQBELs that are set at levels necessary to achieve water quality standards. EPA's Trading Policy provides states with guidance on how to facilitate trading consistent with the CWA and its implementing regulations. The Trading Policy is included in this document as Appendix B. Many of the concepts in the Trading Policy are explored in greater detail in the section on Essential Trading Information for Permit Writers. In addition, relevant portions of the Trading Policy are referenced throughout the Toolkit.

Under CWA section 301(b), NPDES permits must contain technology-based effluent limitations (TBELs) and more stringent effluent limitations when necessary to meet applicable water quality standards. Trading cannot be used to meet TBELs, except where specifically authorized by effluent guidelines (e.g., the *water bubble* provisions in the effluent guidelines for the Iron and Steel point source category). EPA has promulgated regulations at 40 CFR Part 122 specifying when WQBELs under CWA section 301(b)(1)(C) are necessary and how such limitations are to be derived. Among other things, EPA's regulations at 40 CFR 122.44(d)(1)(vii) require the permitting authority to ensure that: (a) the level of water quality to be achieved by limits on point sources is derived from, and complies with, all applicable water quality standards; and (b) effluent limitations developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any applicable WLA for the discharge prepared by the state and approved by EPA pursuant to 40 CFR 130.7. To be lawful, a WQBEL must be consistent with the requirements of CWA section 301(b)(1)(C) and EPA's regulations at 40 CFR 122.44(d)(1).

WQBELs must also be calculated at levels that do not result in a shift in loadings that causes a localized impairment of designated uses. A localized impairment may occur wherever the applicable water quality criteria are exceeded. Where state or tribal water quality standards allow for mixing zones, the WQBELs must be consistent with the restrictions associated with those mixing zones.

The requirements of CWA section 301(b)(1)(C) and EPA's regulations at 40 CFR Part 122 apply to all WQBELs, including those based on a water quality trade.

State Regulations, Policy, and Guidance

EPA issued its Trading Policy to encourage state regulatory agencies to include trading as an option for a point source to meet water quality standards. Some states have chosen to develop regulations, policy, or guidance to do any of the following:

- Establish a statewide or watershed trading framework
- Support local trading frameworks
- Address specific aspects of a trading program

State trading rules should be consistent with the CWA, NPDES permit requirements, and state water quality standards. The following sections describe various state approaches for facilitating water quality trading.

Establishing a Statewide or Watershed Trading Framework

States may choose to develop state rules or regulations to facilitate the consistent and efficient implementation of a statewide or watershed-wide trading program and provide a regulatory framework for local rulemaking. Where a statewide or watershed trading program is in place, permittees or other stakeholders interested in pursuing trading know what is expected, what rules apply, and with whom they need to coordinate. NPDES authorities should participate in the development of state rules to ensure trading programs are consistent with NPDES permitting requirements and will address the needs of permit writers.

Connecticut has adopted trading legislation. Public Act No. 01-180 establishes the trading framework for a Long Island Sound Nitrogen Credit Exchange Program to be directed by a Nitrogen Credit Advisory Board appointed by the General Assembly and the governor. The Nitrogen Credit Exchange Program establishes a well-defined trading structure supported and regulated by limits mandated in state law. The state legislation specifies trading ratios (e.g., delivery and location ratios) and accounting methodologies to formalize all calculations used in trading.

States do not necessarily have to develop trading rules and regulations to provide a trading framework. Some states have developed guidance documents and other tools to assist dischargers interested in trading. Pollutant trading is recognized in Idaho's Water Quality Standards regulations, and the Idaho Department of Environmental Quality (DEQ) has produced the *Pollutant Trading Guidance* that establishes the procedures to be followed for pollutant trading. The draft document specifies the conditions under which pollutant trading may take place, establishes record-keeping and reporting procedures, and prescribes how best management practices (BMPs) are to be developed for each watershed in which pollutant trading occurs. Idaho DEQ and EPA Region 10 will rely on this document to convey information to stakeholders about the state's *ground rules* for authorizing and verifying trades and to ensure a level of regulatory consistency between the Lower Boise project and other emerging projects across the state. The nonprofit organization established to record trades for the Lower Boise and other watersheds with trading programs will also refer to the guidance for the transaction information it needs to record and make available to trading participants, EPA and DEQ, and the general public.

Trade Facilitation

The Virginia General Assembly passed legislation authorizing the creation of a Chesapeake Bay Nutrient Credit Exchange Program in 2005. This program includes the issuance of a watershed-based nutrient general permit that incorporates trading, as well as the formation of the Virginia Nutrient Credit Exchange Association, which coordinates and facilitates trading among its members. The Virginia Department of Environmental Quality (VA DEQ) is charged with developing the watershed-based permit and overseeing the credit exchange. The VA DEQ must certify the credits purchased by facilities and publish a record of all credits

available as well as the trades that have taken place. In addition, the legislation established that the VA DEQ may conduct audits of the Virginia Nutrient Credit Exchange Association to ensure completeness and accuracy of reports.

Supporting Local Trading Frameworks

Some states allow trading without having state trading rules, policy, or guidance specifically addressing pollutant trading. For example, the North Carolina Department of Environment and Natural Resources (DENR) works with any watershed group interested in trading to develop a trading framework for that watershed and cover dischargers under an overlay permit. This trading framework originated in the Neuse River watershed. The state classified the river as a Nutrient Sensitive Water (NSW). Major fish kills in 1995 prompted legislation requiring nutrient controls and led the North Carolina Environmental Management Commission (EMC) to revise its 1988 Nutrient Management Strategy for the Neuse River Basin. The 1997 strategy established a goal that sources would reduce total nitrogen (TN) loads to the estuary by 30 percent by the year 2003. Subsequently, the North Carolina EMC adopted a rules package in 1998 to support the strategy. The rules were aimed at reducing TN impacts in the watershed by promoting nutrient management activities for agriculture, stormwater, point sources, and riparian areas. One of the rules under the strategy, the Wastewater Discharge Requirements rule, allowed dischargers to form an association to meet their allocated TN load collectively. Though not expressly stated in the rule, trading is allowed under this option among the members of the association. Members are allowed to purchase, sell, trade, or lease their individual portions of the estuary TN allocation (which are included in their permits as mass-based effluent limits) among co-permittees covered under an overlay permit so as long as they do not exceed the association's overall estuary TN allocation (2.8 million pounds per year). Individual trades conducted under the overlay permits are typically not reviewed by the state.

Market Drivers

In most states, meeting water quality standards, WLAs under TMDLs, or other kinds of pollutant caps are the leading drivers for water quality trading markets; however, some states have developed state regulations to allow trading in other circumstances, such as on Wisconsin's Red Cedar River. The primary regulatory driver for point sources involved in trading on the Red Cedar River is Chapter NR 217 of the Wisconsin Administrative Code. This chapter of the code mandates 1 mg/L total phosphorus (TP) discharge limits for municipal treatment plants with a monthly discharge exceeding 150 pounds of TP and for industrial sources with a monthly discharge exceeding 60 pounds of TP. This cap is used to control phosphorous loadings and provides an incentive for water quality trading in the Red Cedar River watershed, as well as a baseline against which trading can be conducted.

There may be other specific aspects of a trading program that a state chooses to address through regulation, policy or guidance, such as selection of approved BMPs for generating tradable credits from nonpoint sources or general eligibility requirements (e.g., compliance history) for point sources wishing to engage in a trading program. Permitting authorities

should be familiar with all applicable federal and state policies, regulations, and guidance before beginning to develop a permit that incorporates trading.

As is apparent from this discussion of the legal and policy framework for water quality trading, the decision to incorporate trading into a NPDES permit requires careful consideration. The permitting authority should, first, be aware of the broader state/local/watershed context for trading and consider how this context will affect the incorporation of trading provisions into NPDES permits. Specific permit conditions should be guided by state regulations and policies, including any established trading framework. The following section, Essential Trading Information for Permit Writers, provides an overview of issues that permitting authorities should consider, within the context of established regulation and policy, before developing permits that incorporate water quality trading.

EPA EXHIBIT # 21

ADMINISTRATIVE RECORD # 65

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

POLLUTANT TRADING
GUIDANCE

November 2003 Draft

Upper Snake Rock Subbasin – Middle Snake River
Pollutant Trading Ratios

This document provides information on the ratios used to trade phosphorus specific to the Middle Snake River in the Upper Snake Rock Subbasin (HUC 17040212).

APPLICATION LIMITS OF RATIOS

The ratios should not be adapted to other trading markets or scenarios without re-evaluation of the relationships, flow characteristics, and overall qualifications defined for the Middle Snake River. The ratios described in this document are only applicable to the Middle Snake River for phosphorus.

HYDROLOGIC MODEL BASIS FOR ESTABLISHING RATIOS

The ratios are based upon a mass balance model that tracks the flow of water and phosphorus from Milner Dam to King Hill, Idaho. The phosphorus TMDL target of 0.075-mg/L TP is the central basis of the model. The TMDL assumes that the water quality pollutant targets by the various water user industries are implemented over a 10-year period. The target is applicable only to the Middle Snake River.

This model does not make any assumptions related to the uptake of phosphorus in the Middle Snake River. A pound in equals a pound out at any place on the river since the overall target for the whole Middle Snake River is 0.075-mg/L TP.

There are seven (7) compliance points on the Middle Snake River that relate to meeting beneficial uses and/or water quality standards as defined in the Upper Snake Rock TMDL. The compliance points include Milner Dam, Pillar Falls, Crystal Springs, Below Box Canyon, Gridley Bridge, Shoestring Bridge, and King Hill, Idaho. Because of these seven (7) compliance points, six (6) segments are defined on the Middle Snake River. The six (6) segments are Segment 1 (Milner Dam to Pillar Falls), Segment 2 (Pillar Falls to Crystal Springs), Segment 3 (Crystal Springs to Box Canyon), Segment 4 (Box Canyon to Gridley Bridge), Segment 5 (Gridley Bridge to Shoestring Bridge), and Segment 6 (Shoestring Bridge to King Hill, Idaho). Figure 1 illustrates all of the compliance points, the segments, and the major tributaries that discharge to the Middle Snake River, however, pollutant trading is only provided for on the first three segments at this time.

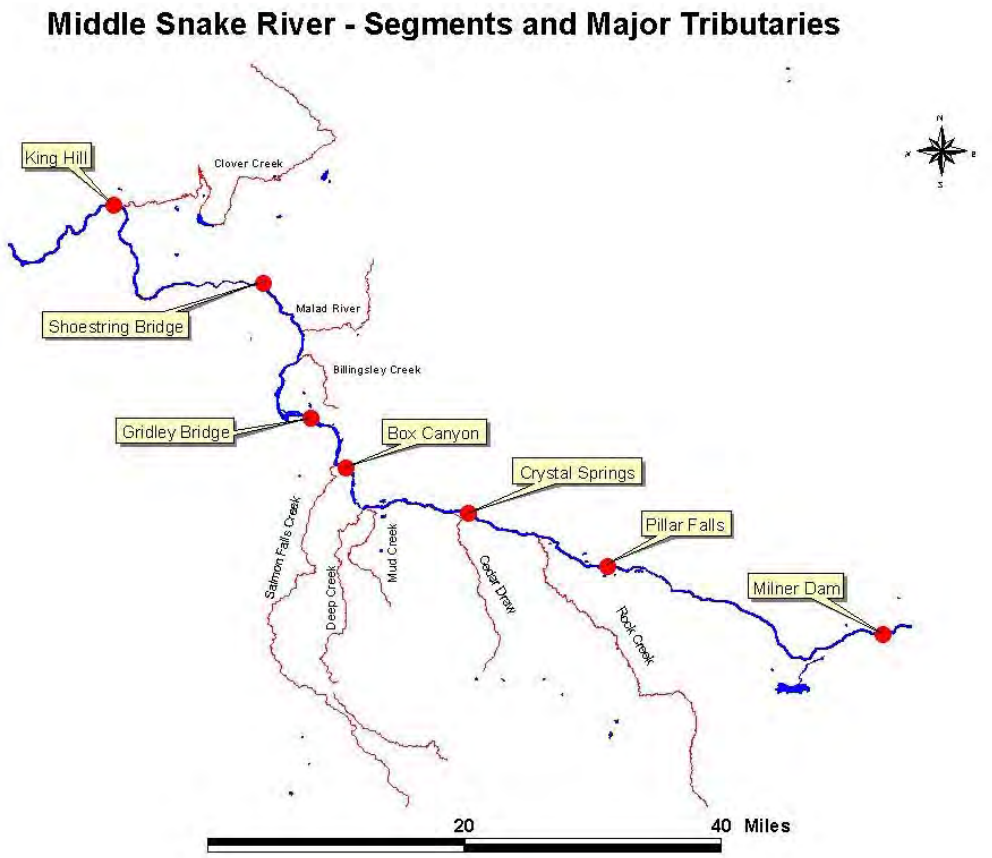

Figure 1. Middle Snake River – Segments and Major Tributaries

The mass balance model stipulates the following assumption:

Total Flow = Groundwater Flow + Point Source Flow + Nonpoint Source Flow

To the extent practical, each component of the mass balance model was subdivided into flows that could be accounted versus flows that could not be accounted. USGS quadrangle maps (1:24,000) were consulted to define more accurately which sources were unaccounted. This ended up being unnamed springs or tributaries that discharged directly into the Middle Snake River. Most unnamed tributaries are ephemeral streams.

CONCEPTUALIZATION OF MASS BALANCE MODEL

The mass balance model for the Upper Snake Rock TMDL operates under the premise that the Middle Snake River will obtain the instream target of 0.075 mg/L TP as an overall average for the river system. Seven (7) compliance points along a 94-mile stretch of river have been selected for monitoring purposes to ascertain if the concentration target is reached.

Several assumptions are included in the Mid-Snake Model. These are:

1. The Mid-Snake Model incorporates all known inputs and diversions. In the case of the Middle Snake River, the mass balance centers primarily on inputs since the majority effects come from inputs and very minimally from outputs (or diversions). No diversions occur in Segments 1, 2, and 3.

2. The upstream portion of the Mid-Snake Model begins at Milner Dam (River Mile 638.5). Although the model runs all the way to King Hill, Idaho (River Mile 545.0), pollutant trading is allowed in only the first three (3) segments of the Middle Snake River. Therefore, the furthest downstream site is below Box Canyon (River Mile 587.0).

3. The flow information was derived for the years 1983 through 1998. These years were chosen because they aptly describe the more recent flow conditions on the Middle Snake River. The baseline years are defined as 1990-1991. High flow years are defined for eight (8) years: 1983-1987 and 1996-1998. Low flow years are defined for eight (8) years: 1988-1995. The median flow is based on flows from 1995 and 1987, whereas the mean flow is from 1983 to 1998.

4. The TP methodology is EPA 365.2 at an MDL of 0.005 mg/L or SM4500-P as unfiltered TP. TP = Suspended TP + Dissolved TP.

RIVER LOCATION RATIOS

The main phosphorus sources within the watershed, aquaculture fish hatcheries, municipalities, food processors, industrials, confined animal feeding operations, irrigated agriculture, and grazing, eventually discharge to the Middle Snake River directly or indirectly. There are no diversions from Milner Dam to Gridley Bridge. Along this stretch of the Middle Snake River, exist numerous discharges to the river. These discharges are from point and nonpoint sources. Segment 1 of the Middle Snake River runs from Milner to Pillar Falls. It is described in Table 1.

Table 1. Segment 1 – Milner Dam to Pillar Falls

River Mile	Discharge Source	Diversion Point	TP Ratios
638.5	**MILNER DAM**		1.00
630.6	Dry Creek		1.00
627.6	Northside A Drain		1.00
619.5	Southside A10 Drain		1.00
619.0	Northside C55 Drain		1.00
618.0	Southside Twin Falls Coulee		1.00
617.9	Vinyard Creek		1.00
613.1	**PILLAR FALLS**		1.00
Springs are not identified in this table. However, 57 springs are identified as discharging directly to the Middle Snake River. It is uncertain how many additional unnamed springs exist. Unnamed surface waters are not included.			

Segment 2 of the Middle Snake River runs from Pillar Falls to Crystal Springs. It is described in Table 2.

Table 2. Segment 2 – Pillar Falls to Crystal Springs

River Mile	Discharge Source	Diversion Point	TP Ratios
613.1	**PILLAR FALLS**		1.00
612.7	East Perrine Coulee		1.00
610.9	Main Perrine Coulee		1.00
610.1	Canyon Springs Fish Hatchery		1.00
610.0	Alpheus Creek		1.00
609.9	Blue Lakes Fish Hatchery		1.00
609.1	Southside West Perrine Coulee		1.00
608.9	Pristine Springs Fish Hatchery		1.00
608.5	City of Twin Falls Municipality		1.00
608.3	Southside 43 Drainage		1.00
608.0	Warm Springs Creek		1.00
607.5	Jerome Golf Course Drain		1.00
607.2	Auger Falls		1.00
606.4	Rock Creek		1.00
605.3	Southside 30 Drain		1.00
603.4	Southside LS/LQ Drain		1.00
602.2	Southside LS2/39A Drain		1.00
600.9	Northside N42 Drain		1.00
600.9	Southside 39 Drain		1.00
600.5	Crystal Springs Fish Hatchery		1.00
600.4	**CRYSTAL SPRINGS**		1.00
Springs are not identified in this table. However, 74 springs are identified as discharging directly to the Middle Snake River. It is uncertain how many additional unnamed springs exist. Unnamed surface waters are not included.			

Segment 3 of the Middle Snake River runs from Crystal Springs to Below Box Canyon Area. It is described in Table 3.

Table 3. Segment 3 – Crystal Springs to Lower Box Canyon

River Mile	Discharge Source	Diversion Point	TP Ratios
600.4	**CRYSTAL SPRINGS**		1.00
600.0	Magic Valley Fish Hatchery		1.00
599.1	Cedar Draw		1.00
599.0	Niagara Springs Fish Hatchery		1.00
598.7	Rim View Fish Hatchery		1.00
598.1	Southside I Drain		1.00
595.0	Northside J8 Drain		1.00
598.0	Clear Springs and Lake: Snake River Fish Hatchery Clear Springs Processing Middle Fish Hatchery Clear Lakes Fish Hatchery		1.00
592.5	Gary Wright Fish Hatchery		1.00
591.8	Kanaka Rapids		1.00
591.5	Southside N Drain		1.00
591.5	Catfish Fish Hatchery		1.00
591.5	Mud Creek		1.00
591.4	Deep Creek		1.00
590.3	Briggs Creek Fish Hatchery		1.00
589.5	Northside S29 Drain		1.00
589.8	Kaster Trout Fish Hatchery		1.00
588.4	Northside S19/S Drains		1.00
588.4	Box Canyon Fish Hatchery		1.00
588.1	Blind Canyon Creek		1.00
588.1	Blind Canyon Fish Hatchery		1.00
587.8	Box Canyon “Creek”		1.00
587.0	**BELOW BOX CANYON AREA**		1.00

Springs are not identified in this table. However, 66 springs are identified as discharging directly to the Middle Snake River. It is uncertain how many additional unnamed springs exist. Under the Mid-Snake TMDL (1997) and the Upper Snake Rock TMDL (1999), the Clear Springs and Lake is considered a part of the Middle Snake River. It is another groundwater source that discharges directly to the river. Unnamed surface waters are not included.

EQUATIONS USED IN THE MASS BALANCE MODEL

The standard equation used in the mass balance model is the same one used for calculating loads.

Load, lb/day = Concentration, mg/L x Flow, cfs x 5.4

EPA EXHIBIT # 22

ADMINISTRATIVE RECORD # 60

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply To
Attn Of: OW-134

AUG 25 2000

David Mabe, State Water Quality Programs Administrator
State of Idaho Department of Environmental Quality
1410 North Hilton
Boise, ID 83706-1255

Dear Mr. Mabe:

The Department of Environmental Quality formally submitted the Upper Snake Rock Watershed Management Plan / Total Maximum Daily Load (TMDL) to EPA for approval on December 31, 1999 with supplemental material provided on July 31, 2000. Based on our review and evaluation of these documents, we are pleased to approve the TMDLs for the Upper Snake Rock Watershed as follows:

- Sediment TMDLs for 34 segments in the Upper Snake Rock Watershed on the §303(d) list.
- Total Phosphorus TMDLs for 34 segments in the Upper Snake Rock Watershed on the §303(d) list.
- Bacteria (fecal coliform) TMDLs for 14 segments in the Upper Snake Rock Watershed on the §303(d) list.

This approval constitutes at total of 82 TMDLs and applies to thirty-four water quality-limited segments on Idaho's §303(d) list submitted in the document titled *"The Upper Snake Rock Watershed Management Plan."* The specific waterbody segments on Idaho's §303(d) list for which the TMDLs are being approved are identified in the attachment.

We are impressed by the commitment and hard work shown by the Middle Snake River Watershed Advisory Group and by the Idaho Department of Environmental Quality in developing this TMDL. In particular, Sonny Buhidar and Darren Brandt of Twin Falls Regional Office should be commended for their efforts. We look forward to implementation of the TMDL and continuing to work collaboratively on water quality issues in the Middle Snake River watershed.

By EPA's approval, these TMDLs are now incorporated into the State's Water Quality Management Plan under Section 303(e) of the Clean Water Act. If you have any comments or questions, please feel free to call me at (206) 553-1261, or you may call Bruce Cleland of my staff at (206) 553-2600.

Sincerely,

Randall F. Smith

Randall F. Smith, Director
Office of Water

cc: Michael McIntyre, Department of Environmental Quality
Don Essig, Department of Environmental Quality
Sonny Buhidar, Department of Environmental Quality
Darren Brandt, Department of Environmental Quality

EPA EXHIBIT # 23

ADMINISTRATIVE RECORD # 62

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: OWW-134

SEP 14 2005

Toni Hardesty, Director
Department of Environmental Quality
1410 North Hilton
Boise, ID 83706-1255

RE: Approval of the Upper Snake Rock TMDL Modification

Dear Ms. Hardesty:

The U.S. Environmental Protection Agency (EPA) is pleased to approve the total suspended solids and total phosphorus wasteload allocations for the fish production facilities, conservation hatcheries, fish processors, Billingsley Creek fish production facilities, and the revisions to nonpoint source load allocations contained in the Upper Snake Rock TMDL Modification, as submitted on August 3, 2005.

This TMDL modification applies to the Clean Water Act (CWA), for the Section 303(d) listed waterbodies, identified in Table 1 (enclosed) for total phosphorus and total suspended solids. This TMDL also applies to the waterbodies listed in Table 2 (enclosed) which had not been previously listed on the 303(d) list but were determined during the course of TMDL development to be impaired for total phosphorus and total suspended solids. These waterbodies would have been included on the 1998 303(d) list had this information been available when the list was compiled. Because these waters now have approved TMDLs associated with them, the state need not include them on its next CWA 303(d) list of impaired waters for the pollutants covered in these TMDLs. In addition, this TMDL also applies to the waterbodies listed in Table 3 (enclosed). While these waterbodies are not themselves impaired for these pollutants, they need to meet phosphorus and total suspended solids allocations consistent with this TMDL modification to ensure that loadings to the mainstem Snake River are not exceeded. The wasteload allocations for aquaculture apply to all facilities which are sources to the listed segments. This modification revises and supersedes the previous TMDLs that were written to cover these waterbodies and pollutants, including the Billingsley Creek TMDL (EPA approved on August 23, 1993), the Mid-Snake TMDL (EPA approved on April 25, 1997), and the Upper Snake-Rock TMDL (EPA approved on August 25, 2000).

The original Mid-Snake TMDL describes the following:

> "The monitoring data collected in years 1 through 3 will be used to give a wasteload allocation to individual facilities at the end of Year 3. A re-evaluation of the Mid-Snake TMDL (and the Upper Snake Rock TMDL) for all industries will occur after Year 10 to

determine if water quality standards and the beneficial uses have been met, and, if necessary, wasteload allocations will be adjusted." (Mid-Snake TMDL, Table 23, p 58)

Since the date to re-evaluate the Mid-Snake is approaching quickly, EPA believes it is very important for DEQ to maintain accurate and effective water quality and flow monitoring information of the compliance points on the Snake River and associated tributaries. We would like to offer assistance to you in the development of monitoring plans from Region 10 headquarters or the Idaho Operations Office staff. It is imperative that we obtain adequate data to assess the attainment of beneficial uses in the Snake River and tributaries after Year 10. We will make ourselves available to discuss monitoring issues at your convenience. Please let us know when you would like to meet.

The development of these wasteload allocations has been a long and challenging process for the affected industry, the DEQ staff and EPA staff. We especially appreciate the hard work of Balthasar Buhidar, Rob Sharpnack, the Middle Snake River Watershed Advisory Group (WAG) and the aquaculture industry in the development of these WLAs.

This approval constitutes wasteload allocations for 81 aquaculture facilities on the Snake River and tributaries, 4 fish processors, and 12 aquaculture facilities on Billingsley Creek. These wasteload allocations will be used to develop individual NPDES permit limits for each of the affected facilities. If you have any questions or comments, please feel free to call me at (206)553-7151, or you may call Bill Stewart of my staff at (208)378-5753.

Sincerely,

for Robert A. Richard

Michael F. Gearheard, Director
Office of Water & Watersheds

cc: Barry Burnell, IDEQ Surface Water Program Administrator
Doug Conde, IDEQ Attorney General
Mike McIntyre, IDEQ Surface Water Program Manager
Marti Bridges, IDEQ TMDL Program Manager
Balthasar Buhidar, IDEQ, Idaho Falls Regional Office Water Quality Manager

Table 1. 1998 303(d) Listed Waterbodies and Equivalent Assessment Unit

NAME OF STREAM – DESIGNATION	WQLS No. 1998 LIST	ASSESSMENT UNIT – 2002 INTEGRATED REPORT	NPDES FACILITIES
SNAKE RIVER SEGMENTS			
Snake River – Bliss Bridge to King Hill Diversion	2369	ID17040212SK001_	NA
Snake River – King Hill to Big Pilgrim Gulch	5176	ID17040212SK001_	NA
Snake River – Cassia Gulch to Big Pilgrim Gulch	5173	ID17040212SK001_	NA
Bliss Reservoir – [*Bliss Dam to Lower Salmon Falls Dam*]	2370	ID17040212SK001_ ID17040212SK005_	GAP-020; GAP-090; GAP-118; GAP-119; GAP-120; GAP-076
Lower Salmon Falls Reservoir – [*Lower Salmon Falls Dam to Upper Salmon Falls Dam*]	2372	ID17040212SK005_	GAP-111; GAP-065; GAP-056; GAP-082; GAP-098; ID-002594-1
Upper Salmon Falls Reservoir – [*Upper Salmon Falls Dam to Clear Lakes Bridge*]	2373	ID17040212SK005_ ID17040212SK007_	GAP-054; GAP-014; GAP-009; ID-002016-8
Snake River – Clear Lakes Bridge to Cedar Draw	5174	ID17040212SK007_	GAP-010
Snake River – Mud Creek to Clear Lakes Bridge	5177	ID17040212SK007_	GAP-100; GAP-041
Snake River – Deep Creek to Mud Creek	5175	ID17040212SK007_	NA
Snake River – Cedar Draw to Rock Creek	2374	ID17040212SK007_	GAP-016; GAP-104 ID-002127-0
Snake River – Shoshone Falls to Rock Creek	6374	ID17040212SK019	ID-002127-0
Shoshone Falls Reservoir – [*Shoshone Falls Dam to Twin Falls Dam*]	2375	ID17040212SK019_	NA
Snake River – Murtaugh to Twin Falls Reservoir	2377	ID17040212SK020_07	ID-002244-6
Snake River – Milner Dam to Murtaugh	2378	ID17040212SK020_07	NA
TRIBUTARIES OF THE SNAKE RIVER			
Clover Creek – Pioneer Reservoir to Snake River	2379	ID17040212SK034_02 ID17040212SK034_04	NA
Pioneer Reservoir	2380	ID17040212SK035_04	NA
Billingsley Creek – Headwaters to Snake River	2384	ID17040212SK033_02	GAP-015; GAP-050; GAP-130; GAP-005; GAP-066; GAP-001; GAP-131; GAP-048; GAP-017; GAP-132; GAP-083; GAP-096
Riley Creek – Headwaters to Snake River	2385	ID17040212SK006_02	GAP-004; GAP-003
Sand Springs Creek – Headwaters to Snake River	2386	ID17040212SK005_ *[Nearest Assessment Unit]*	NA
Blind Canyon – Headwaters to Snake River	2389	ID17040212SK007_ *[Nearest Assessment Unit]*	GAP-060
Clear Springs (Clear Lakes) – Headwaters to Snake River	2395	ID17040212SK028_02	GAP-007; GAP-125; GAP-011 (FH + FP); GAP-002
Crystal Springs – Headwaters to Snake River	2398	ID17040212SK007_ *[Nearest Assessment Unit]*	GAP-006
Rock Creek – Rock Creek (town) to Snake River	2400	ID17040212SK013_04 ID17040212SK013_05	GAP-036 (FH + FP); GAP-084; GAP-091; GAP-124; GAP-097

Cottonwood Creek – Headwaters to Rock Creek	2403	ID17040212SK014_02 ID17040212SK014_03 ID17040212SK014_04	NA
McMullen Creek – Headwaters to Cottonwood Creek	2404	ID17040212SK015_02 ID17040212SK015_03	NA
Alpheus Creek – Headwaters to Snake River	2405	ID17040212SK019_ [*Nearest Assessment Unit*]	NA
Dry Creek – West Fork Dry Creek to Murtaugh Lake	2408	ID17040212SK022_02 ID17040212SK022_03	NA
West Fork Dry Creek – Headwaters to Dry Creek	2411	ID17040212SK023_02	NA
Deep Creek – High Line Canal to Snake River	5286	ID17040212SK008_02 ID17040212SK008_03 ID17040212SK009_02	GAP-069; GAP-047; GAP-080; GAP-077; GAP-112; GAP-053; GAP-057; GAP-133
Toolbox Creek – Headwaters to Fifth Fork Rock Creek	5287	ID17040212SK017_02	NA
Cedar Draw – Headwaters to Snake River	5646	ID17040212SK012_02 ID17040212SK012_03	GAP-028 (FH + FP); GAP-059; GAP-046 (FH + FP); GAP-103; GAP-019; GAP-115; GAP-040; ID-002006-1
Mud Creek – Low Line Canal to Snake River	5647	ID17040212SK010_02 ID17040212SK010_03 ID17040212SK011_02	GAP-102; GAP-063; GAP-064; GAP-116; GAP-079; GAP-029; GAP-070; GAP-109; ID-002066-4
Salmon Falls Creek – Salmon Falls Dam to Snake River	2459	ID17040213SK001_02 ID17040213SK001_06	NA

FH = Fish Hatchery. FP = Fish Processor. NA = Not Applicable. GAP = General Aquaculture Permit – the associated facility name may be found in the TMDL modification document.

Table 2. Additional Waterbodies Assessed and Their Assessment Unit

NAMED STREAM DESIGNATION	WQLS No. 1998 LIST	ASSESSMENT UNIT 2002 INTEGRATED REPORT	NPDES FACILITIES
Vinyard Creek – Headwaters to Snake River		ID17040212SK027_02	NA
Warm Creek – From Alpheus Creek to Snake River		ID17040212SK019_ [*Nearest Assessment Unit*]	GAP-008; GAP-018
Niagara Springs – Headwaters to Snake River		ID17040212SK007_ [*Nearest Assessment Unit*]	GAP-013
Briggs Creek – Headwaters to Snake River		ID17040212SK007_ [*Nearest Assessment Unit*]	GAP-088
Birch Springs – Headwaters to Snake River		ID17040212SK001_ [*Nearest Assessment Unit*]	GAP-087; GAP-105; GAP-062
Stoddard Springs – Headwaters to Snake River		ID17040212SK001_ [*Nearest Assessment Unit*]	GAP-049; GAP-117; GAP-026
Decker Springs – Headwaters to Snake River		ID17040212SK001_ [*Nearest Assessment Unit*]	GAP-107; GAP-106
Malad River – Headwaters to Snake River		ID17040219SK001_02 ID17040219SK001_06	NA

FH = Fish Hatchery. FP = Fish Processor. NA = Not Applicable. GAP = General Aquaculture Permit – the associated facility name may be found in the TMDL modification document.

Table 3. Additional Waterbodies Assessed and Their Assessment Unit

NAME OF STREAM - DESIGNATION	WQLS No. 1998 LIST	ASSESSMENT UNIT – 2002 INTEGRATED REPORT	NPDES FACILITY #
Devils Corral Spring – Headwaters to Snake River		ID17040212SK019_ [*Nearest Assessment Unit*]	NA
Ellison Creek – Headwaters to Snake River		ID17040212SK019_ [*Nearest Assessment Unit*]	NA
Banbury Springs – Headwaters to Snake River		ID17040212SK029_02	NA
Box Canyon – Headwaters to Snake River		ID17040212SK030_02	NA
Blue Heart Spring – Headwaters to Snake River		ID17040212SK005_ [*Nearest Assessment Unit*]	NA
Ritter Creek (Thousand Springs) – Headwaters to Snake River		ID17040212SK031_02	GAP-061

EPA EXHIBIT # 24

ADMINISTRATIVE RECORD # 29

U. .ED STATES ENVIRONMENTAL PROTECTION . .NCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

JUN 2 2009

Reply to
Attn Of: OWW-130

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mike Trabert
Staff Engineer
City of Twin Falls
P.O. Box 1907
Twin Falls, ID 83303-1907

Re: Public Comment Period for Draft NPDES Permit for the City of Twin Falls Wastewater Treatment Plant, NPDES Permit No. ID-0021270

Dear Mr. Trabert:

On May 29, EPA received your request to extend the public comment period for the draft National Pollutant Discharge Elimination System (NPDES) permit for the wastewater discharge from the City of Twin Falls Wastewater Treatment Plant.

After consideration of several factors including consultation with IDEQ on several issues, we have determined that a 30 day extension of the public comment period is appropriate. Extension of the comment period will be published in the *Times-News* on June 5, 2009. The revised closing date for the comment period will be July 15, 2009. Following the close of the public comment period, we will consider the comments received when preparing the final permit.

As you prepare comments on the draft permit, you may want to consider the following. In consulting with IDEQ, we confirmed that IDEQ cannot develop and approve TSS trading without a process involving all the stakeholders within the watershed. Because of limited resources, this process would not be completed during the time period in which we must re-issue this permit. Furthermore, any consideration of modification to the TSS limit under 40 CFR 133.103(b) would be for modification to the technology-based limit; the applied limits for this permit are the lower water-quality based limits derived from the Upper Snake Rock Total Maximum Daily Load (TMDL). Any change to the technology-based limits would be academic unless they were changed to be lower than the water-quality based limits, in which case they would be included as limitations in the permit.

We would also like to point out that the pretreatment program requirements proposed in the draft permit are standard requirements and are being continued from the previous permit.

For questions about the permit, contact Sharon Wilson at 206-553-0325 or wilson.sharon@epa.gov.

Sincerely,

Michael J. Lidgard
Manager, NPDES Permits Unit

cc: Dr. Balthasar B. Buhidar, IDEQ
Jackie Fields, Twin Falls City Engineer

EPA EXHIBIT # 25

ADMINISTRATIVE RECORD # 112

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

MAR -- 2 2010

OFFICE OF
WATER AND WATERSHEDS

VIA Fax and First Class Mail

Ms. Jackie Fields, City Engineer
City of Twin Falls
P.O. Box 1907
Twin Falls, Idaho 83303-1907

Re: NPDES Appeal No.09-13
NPDES Permit No. ID-002127-0
Notification of Withdrawal of Permit Conditions

Dear Ms. Fields:

The above-referenced National Pollutant Discharge Elimination System (NPDES) permit was issued to City of Twin Falls Wastewater Treatment Plant (the City) on September 22, 2009. On October 28, 2009, the Environmental Appeals Board (EAB) notified Region 10 that Idaho Conservation League (ICL) had filed a petition for review of the permit. By letter dated November 20, 2009, the Region identified those permit conditions that were stayed as a result of ICL's petition. (The Region's November 20, 2009 letter also identified those permit conditions that were stayed as a result of a petition for review filed by the City.) With respect to ICL's petition, the following contested conditions were identified as stayed until final agency action under 40 C.F.R. § 124.19(f):

- Section I.B.1: "The permittee may engage in pollutant trading for average monthly discharges of total phosphorus pursuant to the requirements in 'State of Idaho Department of Environmental Quality Pollutant Trading Guidance' (November 2003 draft). No trading is allowed to adjust discharges to meet average weekly limits or for other pollutants. This permit only authorizes trading with other point sources in Segments 1, 2, and 3 in the Middle Snake River watershed that have NPDES permits that authorize trading. Trading with non-point sources is not authorized. See Appendix A for details about the requirements for buying and selling pollutant credits and reporting such trades to EPA and the Idaho Department of Environmental Quality (IDEQ)."

- Appendix A (Pollutant Trading in the Upper Snake Rock Subbasin)

Pursuant to 40 C.F.R. § 124.19(d), the Region hereby withdraws Section I.B.1 and Appendix A from NPDES Permit No. ID-002127-0. As of the date of this notification, neither Section I.B.1 nor Appendix A is in effect as a permit condition. The Region intends to issue a proposed permit modification *to not include* Section I.B.1 and Appendix A in the permit in the near future.

If you have any questions, please feel free to contact Peter Ford, Office of Regional Counsel, at (206) 553-2116, or John Drabek, Office of Water and Watersheds, at (206) 553-8257.

Sincerely,

Michael A. Bussell, Director
Office of Water and Watersheds

cc: Ms. Erika Durr, Environmental Appeals Board
Mr. Fritz Wonderlich, Wonderlich & Wakefield
Mr. Justin Hayes, Idaho Conservation League
Ms. Marti Bridges, Idaho Department of Environmental Quality

EPA EXHIBIT # 26

ADMINISTRATIVE RECORD # 66

Permit No.: ID-002127-0
Application No.: ID-002127-0

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act,"

CITY OF TWIN FALLS

is authorized to discharge from a municipal wastewater treatment facility located in Twin Falls (Twin Falls County), Idaho,

to receiving waters named Snake River, at approximate river mile 608.5 in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective May 1, 2000

This permit and the authorization to discharge shall expire at midnight, May 1, 2005

Signed this 28th day of March 2000.

Randall F. Smith
Director, Office of Water, Region 10
U.S. Environmental Protection Agency

RCS/JC
3/29/00

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Effluent Limitations.

During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge from Outfall 001 subject to the following conditions:

1. The pH of the effluent shall not be less than 6.0 nor greater than 9.0.

2. There shall be no discharge of floating solids, visible foam in other than trace amounts, or oily wastes which produce a sheen on the surface of the receiving water.

3. The following effluent limits shall apply:

EFFLUENT CHARACTERISTIC	UNIT OF MEASURE	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY
Biochemical Oxygen Demand 5-day (BOD_5)	mg/l lb/day	30 1952	45 2928	--- ---
Total Suspended Solids (TSS)	mg/l lb/day	30 1952	45 2928	--- ---
Fecal Coliform Bacteria	#/100 ml	100	200	---
Total Residual Chlorine*	mg/l	0.012	---	0.033
Total Phosphorus**	lbs/day	710	1400	---
Total Ammonia as N May 1 - September 30	mg/l lb/day	3.8 247	--- ---	5.4 351
Total Ammonia as N October 1 - April 30	mg/l lb/day	5.2 338	--- ---	7.5 488

*Applies only when the chlorine disinfection system is in use. EPA has set forth reporting thresholds to measure the highest acceptable quantification levels for total residual chlorine. The reporting thresholds do not authorize discharge in excess of the effluent limits. For more information, see special conditions on the last page of this permit. The value reported may be designated as the detection limit for chlorine (0.05 mg/l), based upon the DPD or amperometric method described by Standard Methods, 17th edition, Section 4500-Cl G.

**The total phosphorus limitation is effective beginning on August 30, 2004, consistent with Section I.E.

4. Percent removal requirements for BOD_5 and TSS are as follows: For any month, the monthly average effluent concentration shall not exceed 15 percent of the