



Idaho Department of Environmental Quality  
**FINAL §401 Water Quality Certification**

August 23, 2012

NPDES Permit Number(s): ID-0023981, West Boise Wastewater Treatment Facility,  
City of Boise

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Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC Section 1341 (a)(1), and Idaho Code §§ 39-101 et.seq., and 39-3601 et.seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NDPES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced modified permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, including the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02) and other appropriate water quality requirements of State law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations or permits.

**CONDITIONS THAT ARE NECESSARY TO ASSURE COMPLIANCE WITH  
WATER QUALITY STANDARDS OR OTHER APPROPRIATE WATER  
QUALITY REQUIREMENTS OF STATE LAW**

**Surface Water Monitoring Requirements**

In order to determine the effect of the West Boise WWTF effluent with regard to WQS 58.01.02.250.02 (b), upstream and downstream water temperature should be collected continuously at no less than hourly intervals. Determining compliance with Idaho WQS requires more than a single instantaneous recorded measurement once each week. The city of Boise is presently collecting continuous water temperature data at several locations and this requirement is included in EPA's factsheet of April 21, 2011 on page 22, Table 6.

**ALTERNATIVE LIMITATIONS**

The following subsection(s) discuss how the permit can be made less stringent and still comply with Idaho WQS.

## Mercury Limits

The draft modified permit contains effluent limits for mercury contained in Table 2, mercury effluent monitoring requirements contained in Table 4 and surface water monitoring requirements contained in Table 7. As explained below, DEQ's methylmercury fish tissue criteria is more stringent and more protective of aquatic life than the mercury water column criteria used by EPA to set the effluent limits and sampling requirements. Therefore, the mercury effluent limits and sampling requirements should be removed. Instead, both aquatic life and human health will be protected by the fish tissue sampling and mercury minimization plan set forth below and in Section I.G of the permit.

### **Statement on relative stringency and thus protectiveness of Idaho's fish tissue criterion**

Based on concurrent fish tissue and water column sampling of mercury from major rivers in Idaho (Essig 2009), fish tissue methylmercury levels at Idaho's criterion is associated with a water column Hg level much less than 12 ng/L. Specifically, regressing water total Hg on fish tissue with the 55 paired data from Essig's report, and using upper 99th percent confidence limits on both slope and intercept from that regression, shows a fish tissue methylmercury level of 0.3 mg/Kg corresponds to a water column total mercury level of 2.6 ng/L. In other words, there is only a 1% probability of water total mercury being > 2.6 ng/L when methylmercury levels in fish tissue from that water meets Idaho's tissue criterion.

This correlated level of water column total mercury of 2.6 ng/L is almost 100 times lower (more stringent) than the lowest estimated chronic toxicity value of 250 ng/L in EPA's 1995 aquatic life criteria updates. It is more than four times lower than the outdated chronic aquatic life criterion of 12 ng/L based on back calculation from the FDA action level for mercury in fish of 1.0 mg/Kg. This gives Idaho very high confidence in saying that its human health fish tissue criterion is the more stringent criterion, that human health is a more sensitive use than aquatic life for mercury, and that meeting Idaho's fish tissue criterion will be protective of aquatic life uses.

### **Fish Tissue Sampling**

**Objective:** The objective of the Methylmercury Fish Tissue Monitoring program is to collect reliable methylmercury fish tissue data, within a specific geographic area, to determine if fish tissue concentrations of methylmercury are compliant with Idaho's methylmercury fish tissue criterion of 0.3 mg/kg. The monitoring program may also be used to advise the public on safe levels of fish consumption.

**Applicability:** The permittee may satisfy the requirements of the Methylmercury Fish Tissue Monitoring Program by arranging to participate in a cooperative effort with other

entities which have NPDES permitted discharges to the Lower Boise River or tributaries to the Lower Boise River.

**Requirements:** The permittee must develop and submit a Methylmercury Fish Tissue Monitoring Plan to EPA and IDEQ for review and approval within one year of the effective date of the permit. At a minimum the plan must include the following elements:

- Identify all participants (e.g., City of Boise, other municipalities or industries) funding the monitoring program. The monitoring plan must be updated each time a municipality or industrial facility joins the cooperative monitoring program, and the City of Boise must provide notice to EPA and IDEQ each time a new entity becomes part of the cooperative monitoring program. Written notice must be provided to EPA and IDEQ within 30 days of a new participant joining the program.
- Monitoring stations where fish tissue samples will be collected. One monitoring station must be located in each of the following areas:
  - Upstream of River Mile 50 in the Lower Boise River,
  - An area downstream of both of the City of Boise outfalls and near the middle of the Lower Boise River,
  - Near the mouth of the Boise River,
  - Snake River upstream of the confluence of the Boise and Snake Rivers,
  - Snake River downstream of the confluence of the Boise and Snake Rivers, and
  - Within the Brownlee Reservoir.
- Identify the name and address of organization collecting and analyzing fish tissue samples. The organization must have experience or training in the collection and analysis of methylmercury fish tissue samples.
- Develop a sampling plan that specifies sample target species, sample number and size, timing of sample collection, and all essential fish collection, handling, and shipping information for field sampling teams collecting fish. The plan should include a project description, detailed standard operating procedures (SOPs) for fish collection, and instructions for completing field forms and labels and for shipping fish samples. Protocols should be consistent with Chapter 4 of *Implementation Guidance for the Idaho Mercury Water Quality Criteria* (Idaho Department of Environmental Quality, 2005).
- Identify all protocols related to sample preparation methods and analytical methods to be used on samples.
- Identify data quality goals for all sample collection and handling activities and describe the Quality Assurance/Quality Control (QA/QC) techniques employed by field teams to support those goals

**Sample Frequency:** Initial sampling must occur within two years of the effective date of the permit. Following the initial sampling event, monitoring must occur at least once every two years from five of six sample locations, and yearly at the sixth location. After

three sampling cycles, five of six sample locations may be sampled once every five years, depending on results of the first three cycles.

**Additional Sampling:** At each sample location where fish are collected a surface water sample must be collected and analyzed for total mercury using an analytical method which achieves a Minimum Level of 0.0005 µg/L.

**Reporting Requirements:** The permittee must submit a report which lists the participants financing the monitoring program; the name, address and phone number of the entity collecting and analyzing samples; sample locations; target species used; sample size; time samples were collected; analytical methods used; results, and any other information relevant to the monitoring program. The permittee must submit the report to EPA, IDEQ and Idaho Fish Consumption Advisory Program by March 31<sup>st</sup> of the year following sampling.

**Revision to the Methylmercury Monitoring Plan:** Any revisions to the Methylmercury Monitoring Plan must be approved by IDEQ and EPA.

### **Mercury Minimization Plan**

1. The permittee must develop and implement a mercury minimization plan that identifies potential sources of mercury and the measures to reduce or eliminate mercury loading. The mercury minimization plan should include the following:

- a) A Program Plan which includes the City's commitments for:
  - (i) Identification of potential sources of mercury that contribute to discharge levels;
  - (ii) Reasonable, cost-effective activities to reduce or eliminate mercury loadings from identified sources;
  - (iii) Tracking mercury source reduction implementation and mercury source monitoring;
  - (iv) Quarterly monitoring of POTW influent and effluent; and
  - (v) Resources and staffing
- b) Implementation of cost-effective control measures for direct and indirect contributors; and
- c) An annual status report submitted to the US EPA, which includes:
  - (i) A list of potential mercury sources;
  - (ii) A summary of actions taken to reduce or eliminate mercury discharges to progress toward meeting water quality standards;
  - (iii) Mercury source reduction implementation, source monitoring results, influent and effluent, and results for the previous year; and
  - (iv) Proposed adjustments to the Program Plan based on findings from the previous year.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 90 days of the effective date of this permit. Any existing

emergency response and public notification plan may be modified for compliance with this section.

### **Zinc Permit Limit**

The permit establishes an average monthly limit for zinc that is based on an antidegradation analysis that was done prior to DEQ's adoption of antidegradation implementation procedures in the WQS. The EPA analysis regarding zinc is based on the determination that the Boise River is afforded Tier 2 protection for zinc using a pollutant-by-pollutant application of DEQ's antidegradation policy. DEQ, however, has adopted a waterbody-by-waterbody approach in its WQS, and under this approach, the level of protection applicable to the Boise River at the location of the West Boise WWTF effluent is Tier I. Therefore, the appropriate antidegradation review is to determine whether the limits protect existing uses through compliance with the applicable criteria. (See attached antidegradation review). Using a 25% mixing zone for the October through April time period, and a 10% mixing zone for May through September, there is no reasonable potential to exceed Idaho WQS for zinc. Therefore, the permit can be made less stringent by the removal of the zinc effluent limit and still comply with WQS.

### **Temperature Permit Limit**

Summer thermal effluent limits may be made less stringent by application of Idaho's WQS allowing a cumulative 0.3°C increase in temperature from all sources when natural conditions are warmer than numeric criteria (IDAPA 58.01.02.200.09). Based on the City of Boise's Chapter 7 analysis of temperature, it appears to DEQ this may be the case during a portion of the warmer months of the year in the Boise River. The City's modeling of natural temperatures needs to be updated and agreed upon by DEQ and EPA before natural conditions and their appropriate time of application could become the basis for alternate thermal effluent limits. The interim effluent limits for temperature are intended to be consistent with Idaho WQS.

### **Biosolids**

The permit prohibits the use of the wastewater interceptor pipeline to transport biosolids. However, in order to accomplish the interim and final effluent reductions necessary to achieve permit compliance with TP and temperature limits, the Lander Street WWTF is anticipated to generate solids that exceed capacity. In order to properly manage this excess, it is necessary to use the South Boise Interceptor (SBI) pipeline to transport up to 90,000 gpd of biosolids to the West Boise WWTF for proper treatment. This temporary modification of waste treatment is necessary to allow for timely completion of plant modifications planned for Lander Street and West Boise WWTF's. At no time will permit limits at the West Boise WWTF be exceeded as a result of this process. This process modification is authorized from March 1, 2012 through the term of this permit.

### **COMPLIANCE SCHEDULE**

Pursuant to IDAPA 58.01.02.400.03, DEQ may authorize compliance schedules for water quality based effluent limits that are in a permit for the first time. West Boise WWTF cannot immediately achieve compliance with the effluent limits for total phosphorus and

temperature; therefore, DEQ authorizes a compliance schedule and interim requirements as set forth below. This compliance schedule provides the permittee a reasonable amount of time to achieve the final effluent limitations as specified in the permit, while at the same time, it ensures compliance with the final effluent limitations is accomplished as soon as possible.

1. **Total Phosphorus:** The permittee must comply with the following Compliance Schedule requirements for Total Phosphorus.

- a) The following limitations must be achieved by the dates cited.

**TABLE 1: Effluent Limitation**

| <b>Date</b>                            | <b>Effluent Limit</b>  |
|--|--|
| May 1 through September 30, 2013       | Interim Limit not to exceed 5.8 mg/L, seasonal average       |
| May 1 through September 30, 2014       | Interim Limit not to exceed 5.8 mg/L, seasonal average       |
| May 1 through September 30, 2015       | Interim Limit not to exceed 5.8 mg/L, seasonal average       |
| May 1 through September 30, 2016       | Interim Limit not to exceed 600 µg/L, seasonal average       |
| May 1 through September 30, 2017       | Interim Limit not to exceed 500 µg/L, <b>monthly</b> average |
| 10 years from effective date of permit | See Table 1, Part I.B.3                                      |

- b) The permittee must complete the tasks and reports described below.
  - (i) No later than April 26, 2013 the permittee must complete construction of the Struvite Production Facility. The permittee must submit a letter to EPA and IDEQ stating when construction is complete.
  - (ii) No later than July 1, 2013 UV Disinfection improvements must be complete. The permittee must submit a letter to IDEQ and EPA stating when construction is complete and when it is operational.
  - (iii) No later than April 30, 2016 the Enhanced Biological Nutrient Removal Modifications must be complete and operational. These modifications include the following:
    - Modifications to chemical addition facility
    - South plant primary clarifier mechanism replacements and modifications
    - South plant secondary clarifier mechanisms and weirs
    - New 400,000 gallon primary sludge fermentation tank
    - New 250,000 gallon phosphate release tank

- Four new rotary drum thickeners
  - Piping interconnects for return activated sludge, mixed liquor, primary influent, and primary effluent
- (iv) The permittee must submit a letter to IDEQ and EPA stating when construction is complete and when it is operational.
- (v) Evaluate options available to achieve the final effluent limitation, including, but not limited to, treatment plant upgrades, seasonal re-use of effluent, effluent trading projects, and the decommissioning the Lander Street wastewater treatment facility and consolidating all operations at the West Boise wastewater treatment facility.
- (vi) Starting in 2013 and continuing through 2017 the permittee must submit a Report of Progress to IDEQ and EPA detailing the evaluation of each available option. Reports must be submitted by December 31 of each year.
- (vii) No later than December 31, 2018 the permittee must decide on the final option that will be used to achieve the final effluent limits. At this time, the permittee must provide, to IDEQ and EPA, a preliminary schedule of design upgrades and a preliminary construction schedule that will be used to achieve compliance with the final limits.

Thereafter, by December 31st of each year, the permittee must provide a Report of Progress to IDEQ and EPA which details the progress made toward achieving the final effluent limitation, and the series of actions that will be taken in the coming year.

- (viii) No later than 10 years from the effective date of the permit, the permittee must be in compliance with the final effluent limit. The permittee must notify IDEQ and EPA in writing when the final effluent limit is achieved.

2. **Temperature:** The permittee must comply with the following Compliance Schedule requirements for Temperature.

- a) The following interim Maximum Daily Average and final limitations must be achieved by the dates cited.

- Interim Limits<sup>1</sup>:
 

|                  |          |
|------------------|----------|
| January – March: | 17.2 ° C |
| April – June:    | 22.1 ° C |

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<sup>1</sup> Interim Temperature limits were developed based on the last nine years of operational and climatic conditions and the assumption that conditions during the Schedule of Compliance would be consistent with observed conditions during the last decade. These limits are not applicable if the Boise Airport Temperature for the annual, seasonal, or monthly period observed and reported by NOAA (<http://www.wrh.noaa.gov/boi/climo.php>) establishes a new high temperature record.

July – September: 24.1 ° C

October –December: 22.4 ° C

- The final effluent limits listed in Part I. B. or limits based on Idaho WQS natural background provision (IDAPA 58.01.02.200.09) must be achieved no later than 10 years after the effective date of the permit.

b) The permittee must complete the tasks and reports described below

- (i) No later than December 31, 2017 complete an alternatives evaluation of methods the City may use to achieve the final effluent limits. The evaluation should consider facility improvements, re-use of effluent, and possible trading mechanisms such as offsite mitigation, including wetland and habitat restoration. Starting in 2013 and continuing through 2017 the permittee must submit a Report of Progress to EPA and IDEQ detailing the evaluation of each available option. The Reports must be submitted by December 31 of each year.

If the City determines to pursue limits based on the natural background provision in the WQS, the City must, no later than December 31, 2017, complete and submit an updated natural conditions model for temperature that is reviewed and approved by EPA and DEQ.

- (ii) No later than December 31, 2018 provide a preliminary schedule of design upgrades and a preliminary construction schedule that will be used to achieve compliance with the final limits. By December 31<sup>st</sup> of each year thereafter the permittee must provide a Report of Progress to IDEQ and EPA which details the progress made toward achieving the final effluent limitation, and the series of actions that will be taken in the coming year.
- (iii) No later than 10 years from the effective date of the permit, the permittee must be in compliance with the final effluent limits for temperature. The permittee must notify IDEQ and EPA in writing when the final effluent limit is achieved.

## **MIXING ZONES**

Pursuant to IDAPA 58.01.02.060, DEQ authorizes the following mixing zones:

- 25% mixing zone for zinc (October through April);
- 10% mixing zone for zinc (May through September);
- 25% mixing zone for ammonia and whole effluent toxicity (year round); and a
- 10% mixing zone for copper (year round).

## **Temperature**

DEQ is in the process of modifying state water quality standards to address site-specific conditions for the lower Boise River. Because it is unknown what the outcome of that process will be, DEQ is authorizing the following mixing zones based on the existing and the proposed water quality standards.

Existing Water Quality Standards:

- 25% of the critical flow volume of the Boise River for water temperature (December through February).

Proposed Water Quality Standards:

- 50% of the critical flow volumes of the Boise River for water temperature (November through March); and a
- 25% mixing zone for water temperature (April 1 through July 15), and the month of October.

## **TEMPERATURE LIMITS**

The permit contains alternative temperature limits set to achieve either Idaho's existing salmonid spawning criteria, or the proposed new site specific salmonid spawning criteria for the Boise River. DEQ certifies that there is a reasonable assurance that both sets of limits shall comply with applicable WQS.

## **ANTIDegradation**

Idaho WQS (IDAPA 58.01.02.051.01) provide that existing uses and the water quality necessary to protect the existing uses shall be maintained and protected (Tier 1 protection). In addition, where water quality exceeds levels necessary to support uses, that quality shall be maintained and protected unless the Department finds, after intergovernmental coordination and public participation, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located (Tier 2 protection).

The West Boise WWTF discharges to the Boise River (assessment unit ID17050114SW005\_06). This Boise River assessment unit (AU) has the following designated beneficial uses: cold water aquatic life; primary contact recreation; salmonid spawning, agricultural water supply, industrial water supply; wildlife habitat; and aesthetics. There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated.

Idaho has established a water body-by-water body approach for identifying what level of antidegradation protection DEQ will provide when reviewing whether activities or discharges will comply with Idaho's antidegradation policy. This approach relies upon Idaho's most recent federally-approved Integrated Report (IR) of water quality status and its supporting data. The cold water aquatic life use in this Boise River AU is not fully supported due to excess sedimentation, temperature, habitat and flow alteration (DEQ, 2008 IR). The primary contact beneficial use is not fully supported due to bacteria. As

such, DEQ will provide Tier 1 protection only for the aquatic life use and recreational use. (Idaho Code §39-3603(20(b)(i)).

In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with the WQS, which contain narrative and numeric criteria. The numeric and narrative criteria are set at levels for the protection of existing and designated beneficial uses. Furthermore, a permitted discharge must comply with any applicable EPA-approved TMDLs. The EPA-approved *Lower Boise TMDL* (DEQ 1999) establishes wasteload allocations for TSS, and bacteria. These allocations are designed to ensure the Boise River will achieve the quality necessary to support existing and designated aquatic life and recreational beneficial uses and comply with the applicable numeric and narrative criteria.

The effluent limitations and associated requirements contained in the West Boise WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS as well as the wasteload allocations established in the *Lower Boise River TMDL*. Therefore, DEQ has determined the permit will ensure that existing beneficial uses and the water quality necessary to protect the existing uses shall be maintained and protected in compliance with IDAPA 58.01.02.051.01, IDAPA 58.01.02.052.05 and 40 CFR 131.12(a)(1). (Please see attached Antidegradation Review for more information).

#### **OTHER CONDITIONS**

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities, including without limitation, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site specific criteria, variances, or other new information, shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to §401.

#### **RIGHT TO APPEAL FINAL CERTIFICATION**

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5), and the Rules of Administrative Procedure Before the Board of Environmental Quality, IDAPA 58.01.23, within 35 days of the date of the final certification.

Questions regarding the actions taken in this certification should be directed to Lauri Monnot, Boise Region, 208-373-0550, Lauri.Monnot@deq.idaho.gov.

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Pete Wagner, Regional Administrator  
Boise Regional Office

**ANTIDegradation REVIEW**  
**NPDES Permit # ID-0023981**  
**West Boise Wastewater Treatment Facility**  
**City of Boise**

Idaho Department of Environmental Quality  
August 30, 2012

*Antidegradation Overview*

In March 2011, Idaho incorporated new provisions addressing antidegradation implementation in the Idaho Code. The new antidegradation provisions are in Idaho Code § 39-3603. At the same time, Idaho adopted antidegradation implementation procedures in the Idaho Water Quality Standards ("WQS"). DEQ submitted the antidegradation implementation procedures to EPA for approval on April 15, 2011.

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051). The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and assures that existing uses of a water body and the level of water quality necessary to protect the existing uses will be maintained and protected (Tier 1 protection) (IDAPA 58.01.02.051.01; 58.01.02.052.01). A Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07). The second level of protection applies to those water bodies that are considered high quality and assures that no lowering of water quality will be allowed unless it is deemed necessary to accommodate important economic or social development (Tier 2 protection) (IDAPA 58.01.02.051.02; 58.01.02.052.08). The third level of protection applies to water bodies that have been designated outstanding resource waters and requires activities to not cause a lowering of water quality (Tier 3 protection) (IDAPA 58.01.02.03; 58.01.02.052.09).

DEQ is employing a waterbody-by-waterbody approach to implementing Idaho's antidegradation policy. This approach to antidegradation implementation means that any water body fully supporting its beneficial uses will be considered high quality and provided Tier 2 protection (IDAPA 58.01.02.052.05.a). Any waterbody not fully supporting its beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met (IDAPA 58.01.02.052.05.c). The most recent federally-approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

*Pollutants of Concern*

The City of Boise, West Boise Wastewater Treatment Facility (West Boise WWTP) discharges the following pollutants of concern: biological oxygen demand (BOD), total suspended solids (TSS), *E. coli*, pH, ammonia, mercury, arsenic, cadmium, chromium III and IV, lead, nickel, selenium, silver, cyanide, total phosphorus, copper, zinc and temperature. Effluent limitations have been developed for BOD, TSS, *E. coli*, pH, ammonia, mercury, zinc, total phosphorus and temperature.

### *Receiving Water Body Level of Protection*

The West Boise WWTP discharges to the Boise River (assessment unit ID17050114SW005\_06). This Boise River assessment unit (AU) has the following designated beneficial uses: cold water aquatic life; primary contact recreation; salmonid spawning, agricultural water supply, industrial water supply; wildlife habitat; and aesthetics. There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated.

Idaho has established a waterbody-by-waterbody approach for identifying what level of antidegradation protection DEQ will provide when reviewing whether activities or discharges will comply with Idaho's antidegradation policy. This approach relies upon Idaho's most recent federally-approved Integrated Report (IR) of water quality status and its supporting data. The cold water aquatic life use in this Boise River AU is not fully supported due to excess sedimentation, temperature, habitat and flow (DEQ, 2010 IR). The primary contact beneficial use is not fully supported due to bacteria. As such, DEQ will provide Tier 1 protection only for the aquatic life use and recreational uses (58.01.02.051.01 and 58.01.02.052.01).

### *Protection and Maintenance of Existing Uses (Tier 1 Protection)*

As noted above, a Tier 1 review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires a showing that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with Idaho water quality standards (WQS), which contain narrative and numeric criteria as well as other provisions of the WQS such as Section 054 which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels which ensure protection of designated beneficial uses.

The effluent limitations and associated requirements contained in the West Boise WWTP permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS. Because there is no available information indicating the presence of any existing uses other than the designated uses discussed above, the permit ensures that the level of water quality necessary to protect both designated and existing uses is maintained and protected, in compliance with IDAPA 58.01.02.051.01, IDAPA 58.01.02.052.07 and 40 CFR 131.12(a)(1).

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for any water quality limited water body. A central purpose of TMDLs is to establish wasteload allocations for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that consistent with WLAs in the approved TMDL.

The EPA-approved *Lower Boise TMDL* (DEQ 1999) establishes wasteload allocations for TSS, and bacteria. These wasteload allocations are designed to ensure the Boise River will achieve the quality necessary to support its existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. The effluent limitations and

associated requirements contained in the West Boise WWTP permit are set at levels that are consistent with these WLAs.

In sum, the effluent limitations and associated requirements contained in the West Boise WWTP permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS as well as the wasteload allocations established in the *Lower Boise River TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Boise River.