



FACT SHEET

The United States Environmental Protection Agency (EPA) proposes to issue a National Pollutant Discharge Elimination System (NPDES) General Permit to discharge pollutants pursuant to the provisions of the Clean Water Act, 33 USC §1251 et seq to:

**Idaho Drinking Water Treatment Facilities
Permit Number: IDG380000**

Public Comment Period

Start Date: April 25, 2016

End Date: May 25, 2016

Technical Contact

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EPA PROPOSES NPDES PERMIT ISSUANCE

The U.S. Environmental Protection Agency (EPA) proposes to issue the NPDES General Permit to discharge pollutants from Drinking Water Treatment Facilities to waters of the United States (U.S.) in Idaho. In order to ensure the protection of water quality and human health, the General Permit establishes limits on the types and amounts of pollutants that can be discharged as well as other conditions on facilities authorized to discharge under the Permit.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures;
- descriptions of the types of facilities and discharges covered under the General Permit;
- a listing of proposed effluent limitations and other conditions; and
- technical material supporting the conditions in the Permit

CLEAN WATER ACT 401 STATE CERTIFICATION

The EPA requested that the Idaho Department of Environmental Quality (IDEQ) certify this Draft Drinking Water Treatment Facilities General Permit (DWGP) under provisions of Section 401 of the Clean Water Act (CWA), 33 USC § 1341. The State of Idaho has provided a draft certification for the Draft DWGP and it is attached as Appendix E. Questions on the draft DEQ Section 401 certification may be addressed to Nicole Deinarowicz at (208) 373-0591 or at nicole.deinarowicz@deq.idaho.gov.

Comments regarding the certification should be directed to:

Nicole Deinarowicz
ATTN: Surface Water Program 401 Coordinator
State Office
Idaho Department of Environmental Quality
1410 N. Hilton Street
Boise, ID 83706

PUBLIC COMMENT

Persons wishing to comment on the Draft DWGP may do so in writing by the expiration date of the public notice. All comments must be in writing and must include the commenter's name, address, telephone number, permit name, and permit number. Comments must include a concise statement of the basis and any relevant facts the commenter believes the EPA should consider in making its decision regarding the conditions and limitations in the final permit. All written comments and requests must be submitted to the attention of the EPA Regional Director, Office of Water and Watersheds at the following address: U.S. EPA, Region 10, 1200 6th Avenue, Suite 900 (OWW-191), Seattle, WA 98101. Alternatively, comments may be submitted by facsimile to (206) 553-0165; or submitted via e-mail to Kai Shum at the above email address by the expiration date of the public comment period.

Persons wishing to request that a public hearing be held may do so, in writing, by the expiration date of this public comment period. A public hearing is a formal meeting whereby EPA officials hear the public's views and concerns about an EPA action or proposal. A request for a public hearing must state the nature of the issues to be raised, reference the NPDES permit name and permit number, and include the requester's name, address, and telephone number.

After the comment period closes, and all significant comments have been considered, the EPA will review and address all submitted comments. EPA's Regional Director for the Office of Water and Watersheds will then make a final decision regarding permit issuance. If no comments are received, the tentative conditions in the Draft DWGP will become final. Pursuant to Section 509(b)(1) of the Clean Water Act [33 USC 1369(b)(1)], any interested person may appeal the permit in the Ninth Circuit Court of Appeals within 120 days following notice of EPA's final decision for the permit.

DOCUMENTS ARE AVAILABLE FOR REVIEW

The Draft DWGP, fact sheet, and related documents can be reviewed or obtained by visiting or contacting the EPA Region 10 Operations Office in Boise between 8:30 a.m. and 4:00 p.m. (Mountain Time), Monday through Friday:

United States Environmental Protection Agency Region 10
Idaho Operations Office
950 W. Bannock Street, Suite 900
Boise, ID 83702

(208) 378-5746

The Draft DWGP and fact sheet also are available for inspection and copying at the following federal and state offices:

U.S. Environmental Protection Agency Region 10
1200 Sixth Avenue, Suite 900 (OWW-191)
Seattle, Washington 98101
(206) 553-0523 or 1-800-424-4372 and request x-0523

Idaho Department of Environmental Quality
Attn: 401 Program
State Office
1410 North Hilton Street
Boise, Idaho 83706
(208) 373-0502

Idaho Department of Environmental Quality
Boise Regional Office
1445 North Orchard Street
Boise, Idaho 83706-2239
(208) 373-0550

Idaho Department of Environmental Quality
Twin Falls Regional Office
650 Addison Avenue West, Suite 110
Twin Falls, ID 83301
(208) 736-2190

Idaho Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, #300
Pocatello, Idaho 83201
(208) 236-6160

Idaho Department of Environmental Quality
Lewiston Regional Office
1118 F. Street
Lewiston, Idaho 83501
(208) 799-4370

Idaho Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene, Idaho 83814
(208) 769-1422

Idaho Department of Environmental Quality
Idaho Falls Regional Office

900 N. Skyline Drive
Idaho Falls, Idaho 83402
(208) 528-2650

The Draft DWGP, fact sheet, and other information also can be found by visiting the Region 10 website at www.epa.gov/r10earth/waterpermits.htm.

For technical questions regarding the permit or fact sheet, contact Kai Shum at the phone number or e-mail listed above. Services can be made available to persons with disabilities by contacting Audrey Washington at (206) 553-0523.

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ACRONYMS

AML	Average Monthly limit
APA	Administrative Procedures Act
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BE	Biological Evaluation
BMPs	Best Management Practices
BO	Biological Opinion
BOD	Biological Oxygen Demand
BPJ	Best Professional Judgment
BPT	Best Practicable Control Technology Currently Available
CAA	Clean Air Act
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CF	Conversion Factor
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CV	Coefficient of Variation
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments
DF	Dilution Factor
DMR	Discharge Monitoring Report
DWS	Domestic Water Supply – use designation in Idaho Water Quality Standards
DWGP	Drinking Water Treatment Facilities General Permit
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ELG	Effluent Limitation Guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
GPD	Gallons per Day
GPM	Gallons per Minute
GC/ECD	Gas Chromatography/Electron Capture Detection
HVO	Halogenated Volatile Organic
ICIS	Integrated Compliance Information System
IDA	Idaho Department of Agriculture
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IDWR	Idaho Department of Water Resources
LA	Load Allocation
LTA	Long Term Average
MCL	Maximum Contaminant Level
MDL	Maximum Daily Limit or Method Detection Limit
µg/L	Micrograms per Liter
mg/l	Milligrams per Liter
MGD	Million Gallons per Day
ML	Minimum Level
MPRSA	Marine Protection Research and Sanctuaries Act

MSDS	Material Safety Data Sheet
NEPA	National Environmental Policy Act
NOAA-NMFS	National Oceanic and Atmospheric Administration- National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPDWR	National Primary Drinking Water Regulations
NSPS	New Source Performance Standards
O&M	Operation and Maintenance (of a treatment facility)
OMB	White House Office of Management and Budget
OWW	EPA Office of Water and Watersheds
POC	Pollutant of Concern
POTW	Publicly Owned Treatment Works
QAP	Quality Assurance Plan
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation Recovery Act
RFA	Regulatory Flexibility Act
SDWA	Safe Drinking Water Act
TAS	Treatment in a Manner Similar to a State (EPA-Tribal Government Process)
TBEL	Technology-Based Effluent Limitation
TMDL	Total Maximum Daily Load
TR	Total Recoverable (Metal Concentration)
TSD	EPA Technical Support Document for Water Quality-based Toxics Control
TSS	Total Suspended Solids
US	United States
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	Volatile Organic Compound
WLA	Wasteload Allocation
WQBEL	Water Quality-Based Effluent Limitation
WQS	Water Quality Standards

DEFINITIONS

7Q10 flow (seven-day, ten year low flow) means the lowest seven day consecutive mean daily stream flow with a recurrence interval of ten years.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative [40 CFR 122.2].

Average monthly limits 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. It may also be referred to as the "monthly average limits"[40 CFR 122.2].

Best Available Technology Economically Achievable (BAT) means the technology-based standard established by the Clean Water Act (CWA) as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. BAT effluent limitations guidelines (ELGs), in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT) means the technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

CAS registration number means the number assigned by the Chemical Abstract Service (CAS) to uniquely identify a chemical.

CFR means the Code of Federal Regulations, which is the official annual compilation of all regulations and rules promulgated during the previous year by the agencies of the United States government, combined with all the previously issued regulations and rules of those agencies that are still in effect.

Composite sample means a flow-proportioned mixture of not less than four discrete representative samples collected at the same discharge point within the same 24 hours.

Conventional filtration treatment means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

Filtration Treatment means a filtration process including slow sand filtration processes that utilizes filtration media and filters that separate suspended materials from water during the treatment train of a drinking water treatment plant.

Conventional pollutant means biochemical oxygen demand (BOD), total suspended solids (TSS), bacteria, oil and grease, and pH as defined in 40 CFR 401.16.

Continuous Discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities [40 CFR 122.2].

CWA means the Clean Water Act in the United States Code (USC) (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, 33 USC 1251 et seq. [40 CFR 122.2].

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 limits expressed as mass, "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 [40 CFR 122.2].

Designated Use means those beneficial uses assigned to identified waters in Idaho Department of Environmental Quality Rules in the Idaho Administrative Procedures Act (IDAPA), IDAPA 58.01.02, “Water Quality Standards,” Sections 110 through 160, whether or not the uses are being attained [IDAPA 58.01.02.010.24].

Diatomaceous earth filtration means a process resulting in substantial particulate removal in which (1) a precoat of diatomaceous earth filter media is deposited on a support membrane (septum), and (2) while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

The Director means the Regional Administrator of the EPA Region 10, or the Director of the EPA Region 10 Office of Water and Watersheds, the State of Idaho Department of Environmental Quality, or an authorized representative thereof.

Direct filtration means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal. *Discharge* when used without qualification means the “discharge of a pollutant.”

Discharge Monitoring Report (DMR) means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by Permittees [40 CFR 122.2].

Discharge of a pollutant means: Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger” [40 CFR 122.2].

Draft permit means a document prepared under 40 CFR 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit” [40 CFR 122.2].

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean [40 CFR 122.2].

Effluent limitations guidelines (ELG) means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise effluent limitations” [40 CFR 122.2].

Excluded Waters, or prohibited waters, means water bodies not authorized as receiving waters to be covered under this general NPDES permit.

Facility means any NPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Filtration means a process for removing particulate matter from water by passage through porous media. *Flocculation* means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

General permit means an NPDES “permit” issued under 40 CFR 122.28 authorizing a category of discharges under the CWA within a geographical area [40 CFR 122.2].

Grab sample means a single water sample or measurement of water quality taken at a specific time.

Hazardous Material is defined in the IDAPA to mean a material or combination of materials which, when discharged in any quantity into state waters, presents a substantial present or potential hazard to human health, the public health, or the environment [IDAPA 58.01.02.010.46]. It is also defined at 40 CFR 122.2 to mean any substance designated in 40 CFR 116, pursuant to Section 311 of the CWA.

Indian Country as indicated by 18 USC §1151 means: (a) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and, (c) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

Ion exchange treatment means the use of ion exchange (a reversible process in which an ion in solution in contact with a crystal replaces an ion in the lattice of that crystal) for water softening or other water-treatment processes.

Indian Tribe means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation [40 CFR 122.2].

Influent means the water from upstream that enters the facility.

Maximum means the highest measured discharge or pollutant in a waste stream during the time period of interest.

Maximum Daily Discharge limitation means the highest allowable “daily discharge” [40 CFR 122.2].

Membrane filtration is a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism,

and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis. [40 CFR 141.2]. (Also, note that reverse osmosis units are not covered by this General Permit).

Mixing Zone. A defined area or volume of the receiving water surrounding or adjacent to a wastewater discharge where the receiving water, as a result of the discharge, may not meet all applicable water quality criteria or standards. It is considered a place where wastewater mixes with receiving water and not as a place where effluents are treated. [IDAPA 58.01.02.010.61] The application of water quality standards to mixing zones shall be in accordance with Section 060. [IDAPA 58.01.02.060].

Monthly Average Limit means the average of “daily discharges” over a monitoring month, calculated as the sum of all “daily discharges” measured during a monitoring month divided by the number of “daily discharges” measured during that month [40 CFR 122.2].

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA [40 CFR 122.2].

Nonconventional Pollutants means all pollutants that are not included in the list of conventional or toxic pollutants in 40 CFR 401. This includes pollutants such as total residual chlorine, ammonia, COD, nitrogen, and phosphorous.

Notice of Intent (NOI) means a request, or application, to be authorized to discharge under a general NPDES permit.

Nuisance means anything which is injurious to the public health or an obstruction to the free use, in the customary manner, of any waters of the State [IDAPA 58.01.02.010.67].

Outstanding resource water means a high quality water, such as water of national and state parks and wildlife refuges and water of exceptional recreational significance, which has been designated by the legislature and subsequently listed in this chapter (of IDAPA 58.01.02). ORW designation constitutes an outstanding national or state resource that requires protection from point and nonpoint source activities that may lower water quality [IDAPA 58.01.02.010.72].

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials [except those regulated under the Atomic Energy Act of 1954, as amended (42 USC 2011 et seq.)], heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water [40 CFR 122.2].

Quarterly monitoring means monitoring during the quarters defined as: January to March; April to June; July to September; and, October to December.

Services means the United States Fish and Wildlife Service and/or the National Oceanic and Atmospheric Administration-National Marine Fisheries Service (NOAA Fisheries or NMFS)

Slow sand filtration means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 m/h) resulting in substantial particulate removal by physical and biological mechanisms.

Sorption means adhesion or release of molecules or ions on a particle surface including all processes associated with adsorption or absorption.

Technology-based effluent limitation (TBEL) means treatment requirements under Section 301(b) of the Clean Water Act that represent the minimum level of control that must be imposed in a permit issued under section 402 of the Clean Water Act. EPA is required to promulgate technology-based limitations and standards that reflect pollutant reductions that can be achieved by categories, or subcategories of industrial point sources using specific technologies that EPA identifies as meeting the statutorily prescribed level of control under the authority of CWA sections 301, 304, 306, 307, 308, 402, and 501 [33 USC § 1311, 1314, 1316, 1318, 1342, and 1361].

Total Maximum Daily Load (TMDL) means the sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for non-point sources, and natural background when allocating pollutant loading to a particular waterbody. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality [IDAPA 58.012.02.010.100].

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 [40 CFR 122.41(n)].

Waters of the United States or waters of the U.S. means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate “wetlands;”
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition [40 CFR 122.2].

I. Introduction

This Draft DWGP applies to backwash water, reject water, and miscellaneous wastewater disposal from drinking water treatment facilities that discharge to surface waters of the U.S. located in the State of Idaho.

Potable water treatment operations eligible for coverage under the GP include filtration treatment systems, such as conventional direct filtration, slow sand filtration, and membrane filtration. The wastewaters discharge from potable water treatment operations that are covered by this GP are: filter backwash, filter-to-waste, thickener overflows (supernatant), decant water, and from miscellaneous waste streams.

Potable water treatment facilities not covered by this general permit include: batch regenerated potassium permanganate iron removal, sodium zeolite softening and ion exchange or reverse osmosis units.

Discharges from other treatment systems not specifically listed in the GP that can meet the requirements of the GP may also be eligible for coverage under the GP upon approval by EPA. Non-drinking water treatment operations are not eligible for coverage under this GP.

A. General Permits

Section 301(a) of the Clean Water Act (CWA), 33 USC § 1311(a), provides that the discharge of pollutants to waters of the U.S. is unlawful except in accordance with terms and conditions of an NPDES permit. The EPA's implementing regulation at 40 CFR 122.28 authorizes the issuance of general permits to categories of discharges.

In accordance with 40 CFR 122.28, the Director is authorized to issue a general permit to numerous facilities when the facilities:

- Are located within the same geographic area;
- Involve the same or substantially similar types of operations;
- Discharge the same types of waste;
- Require the same effluent limits or operating conditions;
- Require the same or similar treatment technologies or monitoring requirements, and
- In the opinion of the EPA, are more appropriately controlled under a general permit rather than an individual permit.

The EPA is issuing this Draft DWGP for drinking water treatment facilities discharging to waters of the U.S. in Idaho pursuant to EPA's authority under CWA Section 402. The Draft DWGP meets the criteria for general permits as follows:

Geographic area

All of the discharges authorized by the DWGP will be into waters of the U.S. within the State of Idaho, unless otherwise restricted. See Permit Parts I.B., I.C. and I.F.

Involves the Same or Substantially Similar Types of Operations

All facilities covered by this general permit are water treatment filtration facilities. The typical water treatment plant involves conventional or direct filtration treatment to manufacture potable water such as facilities that utilize slow sand filtration processes and disinfection only facilities. These primary processes include: presedimentation; coagulation and flocculation; filtration; oxidation; and chlorination. There are variations of necessary processes depending on site specific characteristics of varying water sources; however, removing sediments and disinfection are the primary goals. To remove sediments, the typical water treatment plant employs presedimentation, and filtration. To disinfect the potable water for delivery, chlorination is commonly used. However, discharge of untreated raw water (without pollutants) that overflowed would not require permit coverage. Overflow water that has been treated or which contains pollutants requires permit coverage. Discharge from the typical water treatment plant is derived from activities that mainly involve the equipment rinses, and from the backwashing of filters. Discharge of raw water does not require a permit coverage when the raw water does not contain pollutants.

Discharge the Same Types of Waste

The facilities covered by this permit discharge the same type of waste, namely, total suspended solids (TSS) from removing sediments from the source water by settlement and filtration, and total residual chlorine, which is added to the finished product for disinfection. There are also minor amounts of additives used for coagulation and flocculation that may be present in the waste stream. Facilities covered by this GP are encouraged to conduct operationally effective best practices that utilize the minimum quantities of additives.

Require Same Effluent limits or Operating Conditions

The Draft DWGP proposes the same effluent limits, monitoring requirements and other operating conditions for all drinking water treatment facilities that have similar mixing zone authorizations. An individual facility covered under the DWGP could have effluent limits based on a mixing zone allowance, where applicable.

Require Same or Similar Treatment Technologies

Although the Draft DWGP does not propose the use of specific treatment technologies, most conventional filtration plants use a settling pond to allow quiescent settling prior to discharge, other treatment of wastewaters include mechanical clarification/sludge thickening and dewatering.

Require Same Monitoring Requirements

The DWGP includes the same monitoring requirements for all facilities with similar treatment processes.

Appropriateness

Because of these factors discussed above, the EPA has determined that the majority of the drinking water treatment plants in Idaho are more appropriately controlled under a general permit than under individual NPDES permits. The similarity of the operations and treatment resulting in the discharge of similar waste streams has prompted the EPA to issue this DWGP.

II. Background Information

The DWGP applies to facilities that produce potable water or industrial water (primary treatment or settled water) where the treatment and distribution of water is the primary function of the facility. The discharge from these facilities include backwash water, overflow water and/or reject water disposal and other wastewaters from drinking water treatment facilities that discharge to surface waters. Backwashing a drinking water treatment system involves reversing and increasing the water's flow to flush out debris

and particles that have accumulated in the drinking water treatment facility. Backwashing is a typical operation of the treatment facility and is regularly performed at water treatment facilities.

For the purposes of the DWGP, drinking water treatment facilities fall into one of three (3) categories: Conventional Direct Filtration Treatment; Ion Exchange Units; and Membrane Filtration Units. Only facilities that utilize Conventional Direct Filtration Treatment and Membrane Filtration Units are covered by this General Permit. Slow sand filtration, a commonly used type of filtration is covered under this permit. Water Treatment Plants that utilize Ion Exchange Units are NOT covered by this General Permit.

A. Water Treatment Plant Operations

Conventional Direct Filtration Treatment

EPA anticipates that all facilities initially covered by the General Permit are facilities that utilize conventional direct filtration treatment. A conventional treatment system passes raw water through a pre-sedimentation system to remove larger settleable solids, such as sand and large organic matter. After pre-sedimentation (if required), the introduction of a coagulant or flocculant mixes and reacts with the suspended particles forming a densified floc that settles by gravity in the sedimentation (settling) basin. The water then passes through a sedimentation basin to the filter. The filter subsequently removes solids that did not settle by gravity in the sedimentation basin. At differing stages of the treatment process, activated carbon may be added for taste and odor control. Chlorine or other disinfectants are added to provide residual protection during distribution. Specific processes associated with conventional treatment systems are more fully explained below.

Alum Coagulation Units

Alum coagulation is the addition of aluminum sulfate prior to the raw water entering a settling basin. Sludge is removed by periodically decanting (discharging) all water from the basin and pumping the sludge to a holding tank. Following settling in the holding tank, more water is decanted for discharge, and the sludge is disposed of in an authorized manner.

Polymer Coagulation/Flocculation Units

Dependent upon the ionic charge of the solids that need to be removed, a wide variety of polymers could be used to remove suspended solids from the raw water. Polymer coagulation/flocculation units are similar in nature to the Alum Coagulation Unit. A polymer is added prior to the raw water entering the settling basin. Sludge is removed by periodically decanting (discharging) all water from the basin and pumping the sludge to a holding tank. Following settling in the holding tank, more water is decanted for discharge and the sludge is disposed of in an authorized manner. The solids released during backwash will require removal prior to discharge. Usually, given sufficient detention time, these solids can be removed by simple settling equipment.

Granular Media Filters

Granular media filters remove suspended solids by adsorption and straining. Single media beds or multi-media beds may be used. The flow pattern through the bed may be upflow or downflow. Backwash cleaning of the media bed is always upflow. There are both dual media and three media filters. The most common dual media filters utilize ground anthracite and silica sand. A three-media filter may also include very fine grain size garnet. During the backwash operation, the filter media will classify according to size with the smallest particles at the top. The dual and triple media filters provide extended filtration capacity by using larger grain size material with lower specific gravity and very small grain size material with higher specific gravity. This causes the larger material to be deposited on the top and the very small material to be deposited on the bottom.

Slow Sand Filtration

Slow sand filtration is a commonly used water treatment process. This is a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 m/h) resulting in substantial particulate removal by physical and biological mechanisms.

Ion Exchange or Reverse Osmosis Units

Discharges to surface water of wastewaters produced from ion exchange, or reverse osmosis water treatment processes are excluded from coverage under this permit and may be required to apply for an individual permit.

Ion exchange is an exchange of ions through a resin such that undesirable or unhealthy ions are exchanged for desirable ions. Demineralizers are ion exchange units that use acids, bases, or salts to regenerate the exchange resins. Sodium or potassium cycle ion exchange units are used to “soften” hard water. Sodium chloride or potassium chloride is used to regenerate the resins from these types of systems. The regeneration waste from these processes may require additional treatment or alternate disposal methods before discharge to receiving water, such as metered disposal to a domestic wastewater treatment system.

The hydrogen-ion exchangers have cation-exchange resins that can be regenerated with sulfuric or hydrochloric acid. The hydroxide-ion exchangers have anion resins that can be regenerated with sodium hydroxide, sodium carbonate, or ammonia. The regeneration waste from these two exchangers may require additional treatment or alternate disposal methods, such as metered disposal to a domestic wastewater treatment system. Additional treatment could include capture in a neutralization tank, where final pH would be adjusted prior to discharge.

The POCs from ion exchange units may include: high pH wastewater, sodium hydroxide, sodium carbonate, and ammonia. Because the waste stream from a facility with ion exchange units have wastestreams that include other pollutants not found in a conventional plant or a WTP that utilizes membrane filtration units, EPA concludes that the waste stream from facilities that utilize ion exchange units are substantially different, and are therefore NOT covered by this General Permit.

Membrane Filtration Facility

Membrane filtration uses semi-permeable membranes to separate particulates, ions, salts or other substances from water. Water is forced across the membrane by a driving force (i.e., water pressure) leaving particulates behind on the membrane or in solution as a concentrate. The type of substances removed will be dependent on the membrane type, pore size, pressure, and quality of the raw water. The waste concentrate is regularly discharged and the membrane is flushed off with air and water. Periodically, the membrane is chemically washed with various chemical solutions in differing concentrations and orders dependent upon the material to be removed from the membranes. The chemical solution used, and therefore the wastewater could include caustic soda, citric acid, chlorine, sodium tripolyphosphate, surfactants, and sodium metabisulfate. The wastewater may be of a somewhat higher pH from the chemicals used, and is likely of a lower pH than an ion exchange facility because the differences in chemicals used. Discharges of this concentrate and cleaning wastes that meet the requirements of the GP may be discharged after treatment.

Some membrane filters are shut down for extended periods of time and the membranes are placed in storage solutions. Disposal of all storage solution must meet the requirements of the GP and authorization or alternate methods of disposal of the storage solution must occur. Approval is required before discharging a storage solution to a domestic wastewater treatment system.

Micro-filters may use chlorine to control biological growth during extended periods of shutdown. The chlorine residual of the storage solution may be above 50 milligrams per liter (mg/l) free chlorine. This solution may be re-charged monthly with more chlorine or a new storage solution is mixed and the old solution disposed in an authorized method.

Nano-filters can use a storage solution that may be generated once and recycled for the entire shutdown period. Sodium metabisulfate is one of the commonly used chemicals to create storage solutions for certain nanofilter systems.

Currently, there are no facilities in this category that would be initially covered by the General Permit. However, the General Permit may provide coverage for a membrane filtration facility having a similar waste stream as the conventional or direct filtration facility.

B. Wastewaters Generated

The principle wastewaters produced in filtration water treatment plants include filter backwash, filter-to-waste, thickener supernatant, and liquids from dewatering processes. Filter backwash and filter-to-waste account for most of the volume of wastewater discharged.

Filter Backwash

Filter media is usually cleaned by flushing with water in the reverse direction to normal flow, with sufficient force to separate particles from the media. A typical backwashing operation lasts for 10 to 25 minutes with maximum rates of 15 to 20 gallon per minute (gpm) per square foot. Because a high water flow is used, a large volume of filter backwash water is produced in a relatively short amount of time. Small plants may produce spent filter backwash sporadically; but larger plants with numerous filters may produce backwash continuously as filters are rotated for backwashing. Spent filter backwash can comprise 2 to 10 percent of the total plant production of finished water. The quality of spent filter backwash varies from plant to plant. Filter backwash may contain chlorine, if the facility backwashes with chlorinated water. Relative to raw water, spent backwash shows higher concentrations of *Giardia*, *Lambia* and *Cryptosporidium*, dissolved organic carbon, zinc, total trihalomethanes (TTHMs), turbidity, total organic carbon and total suspended solids (TSS). In addition, filter backwash may have higher concentrations of aluminum and iron (from aluminum and iron based coagulants). The average TSS concentrations of spent filter backwash typically fall within the range of 50 to 400 mg/l.

Filter-to-Waste

Filter-to-waste is generated by filters immediately after being placed back on-line following backwashing. The filter-to-waste is not considered to be of a quality that can be sent directly into the water distribution system, but is a fairly clean waste stream. It amounts to approximately 0.5 percent of the total amount of water filtered. At some WTPs, the filter-to-waste is returned to the head of the plant.

Thickener Overflows (Supernatant)

Thickener supernatant results from gravity thickening of solids in sedimentation basins, backwash holding tanks, lagoons, and other similar units. After settling, the clarified or decant water that exits the unit is called thickener supernatant. Sludge volumes are typically 0.1 to 3 percent of the plant flow. Thickener supernatant may be recycled or discharged at a frequency that depends on the quantity of sludge produced. Microbial, inorganic, and organic contaminants that concentrate in the sludges can remain in the supernatant, if sludge is not properly settled, treated, and/or removed.

Decant Water

Some filtration plants prepare waste solids for disposal by concentrating solids to remove excess water, thereby reducing the volume of waste for disposal. Such processes concentrate sludges as high as 50 percent solids content. Liquids from dewatering processes are produced from a lagoon or sludge drying bed as decant and underflow, or as filtrate or centrate from mechanical processes. Small, intermittent wastewater streams are produced as a result of the dewatering process. Such waste streams can contain elevated levels of turbidity, TOC, TTHMs, as well as aluminum, iron, and manganese.

Miscellaneous Wastewaters

Miscellaneous waste sources may include, but are not limited to: overflow water, processed potable water, contact and noncontact cooling water, dehumidifier water, sump drainage water, disinfection of water supply pipelines and tanks, hydraulic valve operator water and /or pump seal water.

III. Applicability and Coverage

A. Facilities Eligible for Coverage

The General Permit provides coverage for discharges of treated wastewater from drinking water treatment processes (filter backwash, sedimentation/pre-sedimentation washdown, sedimentation/clarification, or filter-to-waste), and their delivery systems to surface water of the state. Process flows contributing to the discharge include: filter backwash, filtration reject, decanted sludge dewatering, influent screen backwash and/or miscellaneous waste sources associated with potable water facility operation. Miscellaneous waste sources may include, but are not limited to: processed potable water, disinfection of water supply pipelines, from tanks, and from holding tanks of treated water.

B. Facilities Excluded from Coverage

1. Potable water treatment facilities not covered by this general permit include: batch regenerated potassium permanganate iron removal, sodium zeolite softening and reverse osmosis.
2. Any facility that discharges to a receiving water with an EPA-approved TMDL is ineligible for coverage unless that facility is identified in Appendix C of the General Permit.
3. New discharges are not eligible for coverage under this permit to discharge to a water body listed as “impaired” on IDEQ’s most recent EPA-approved Integrated Report unless:
 - a. For discharges to waters without an EPA approved or established TMDL
In advance of submitting an NOI, the permit applicant must provide data sufficient to demonstrate that the discharge of the pollutant for which the water body is impaired will meet in-stream water quality criteria for the pollutant at the point of discharge to the waterbody. The applicant must receive written confirmation from the EPA that the discharge will not contribute to the existing impairment; or,
 - b. For discharges to waters with an EPA approved or established TMDL
These facilities are excluded from coverage unless such facilities are identified in Appendix C of the General Permit - *Facilities allowed to discharge into impaired waters*. New Facilities may be included in Appendix C of the General Permit after EPA and IDEQ determine that permit coverage is appropriate, and, the public participation

requirements in the regulations have been met. New Facilities identified in Appendix C of the General Permit may be subject to additional conditions and/or limitations due to TMDLs in receiving waters.

C. Facilities Requiring an Individual NPDES Permit

In accordance with 40 CFR 122.28(b)(3)(i), the EPA may determine that providing coverage under a general permit is inappropriate for particular facilities and may require such facilities to apply for an individual NPDES permit.

In accordance with federal regulations at 40 CFR 122.28(b)(3)(iii), if a facility is eligible for coverage under an NPDES general permit and then decides that an individual permit is desired, the facility may request to be excluded from the coverage under the general permit by applying for an individual NPDES permit.

The owner or operator must submit the appropriate NPDES permit application forms to EPA Region 10, with the justification supporting a request for an individual NPDES permit, no later than 180 days prior to the anticipated date of commencing to discharge. The request for an individual NPDES permit will be reviewed and processed in accordance with federal regulations at 40 CFR Part 124, once the application is deemed timely and complete. The request will be granted by the issuance of an individual NPDES permit if the reasons cited by the owner or operator clearly demonstrate that inclusion under the general permit is inappropriate.

The Director may also require any person authorized by a general permit to apply for and obtain an individual permit. In accordance with federal regulations at 40 CFR 122.28(b)(3)(iv), the applicability of the general permit is automatically terminated on the effective date of the individual permit.

D. Pollutants Authorized by this General Permit

The DWGP will authorize discharges of specified pollutants in limited amounts to the waters of the U.S. within the State of Idaho. Appendix B of this fact sheet contains a detailed discussion of the pollutants limited by the DWGP.

E. Pollutants Not Authorized by this General Permit

The DWGP does not authorize the discharge of any waste streams, including spills and other unintentional or non-routine discharges of pollutants, that are not part of the normal operation of the facility as disclosed in the permit application and/or NOI. In instances where discharges include chemicals other than the pollutants covered by the DWGP, the owner/operator may need to submit an application for an individual NPDES permit. See Part I.C.

F. Receiving Waters Covered by this Permit

This General Permit authorizes discharges of specified pollutants in limited amounts to the waters of the U.S. within the State of Idaho except for waters within reservations or Indian Country.

G. Receiving Waters Excluded from Permit Coverage

Although the conditions in the DWGP were developed to meet IDEQ water quality criteria for protection of aquatic life and human health uses, there are certain protected, special, or at-risk water resources within the State of Idaho which are excluded from DWGP coverage. Therefore, the DWGP does not authorize discharges to the following protected, special, or at-risk receiving waters.

1. Receiving waters not supporting their designated uses as identified within IDEQ's most recent EPA-approved Integrated Report, where the discharges to that receiving water contain the pollutant(s) for which the waterbody is impaired and contributes to the impairments. For new dischargers, Part I.B. of this permit requires the discharger to demonstrate its ability to comply with 40 CFR 122.4(i) (prohibiting the issuance of permits to new dischargers that will cause or contribute to the violation of water quality standards) prior to coverage under the permit.
2. "Outstanding Resource Waters" identified in the WQS [IDAPA 58.01.02]. Idaho provides for designation of waters or river segments by the Idaho legislature after nomination of waters by the public and review of those nominations by the Idaho Board of Environmental Quality [IDAPA 58.01.02.052.09]. The Board gives special consideration to stream segments "generally recognized as constituting an outstanding national resource . . . , or of exceptional recreational or ecological significance." Outstanding resource water (i.e. Tier 3) designations constitute outstanding national or state resources that require protection from point and nonpoint source activities that may lower water quality [IDAPA 58.01.02.051].
3. Receiving waters one hundred (100) yards or less upstream of, or within a reservation or Indian Country.
4. Receiving waters which flow into other states or Canada one hundred (100) yards or less upstream from the relevant state or international boundary.
5. Receiving waters designated under the Wild and Scenic Rivers Act.

H. Continuation of Permit Coverage

In accordance with 40 CFR 122.46(a), NPDES permits shall be effective for a fixed term not to exceed five (5) years. Therefore, this DWGP will expire five years from the effective date of the final permit. If the DWGP is not reissued prior to the expiration date, it may be eligible for an administrative extension of coverage in accordance with the Administrative Procedures Act (APA) and will remain in full force. However, the EPA cannot provide coverage under this general permit to any Permittee who submits the NOI for administrative continuance of coverage to the EPA after the permit expiration date.

Therefore, any Permittee granted coverage under the DWGP prior to the expiration date that submits an NOI for administrative continuance of coverage within the proper time frame, and receives notice from the EPA that the NOI is deemed timely and complete, will remain covered by this DWGP until the earlier of:

- Authorization for coverage under reissuance or replacement of this GP following timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with requirements of the new permit;
- The Permittee's submittal of a Notice of Termination;
- The issuance of an individual NPDES permit; or,
- A formal permit decision by the Director not to reissue this general permit, at which time the Permittee must seek coverage under an alternative general or individual permit (Part VI.D of the DWGP).

IV. Notification Requirements

New dischargers seeking coverage under this DWGP must submit to EPA a written NOI to be covered. In accordance with 40 CFR 122.28(b)(2)(i), a discharger who fails to submit a timely and complete NOI in accordance with the terms of a general permit is not authorized to discharge. A complete and timely NOI fulfills the requirements of a permit application for purposes of 40 CFR 122.6 and 122.21.

When a drinking water treatment facility is owned by one person or company, and is operated by another person or company, it is the operator's responsibility to apply for and obtain permit coverage [40 CFR 122.21(b)]. For owners/operators of multiple facilities, a separate NOI must be completed for each facility.

A. Facilities Not Required to Submit an NOI

Pursuant to 40 CFR 122.28(b)(2)(vi), EPA intends to cover some facilities under the DWGP without requiring that the facility submit an NOI for coverage. EPA finds that an NOI requirement is inappropriate for purposes of this permit, as the facilities have already submitted the necessary and required information to determine eligibility for DWGP coverage. There are seven WTPs currently operating under an administrative extension of their individual permits. These facilities are listed in Table 1, below. Each of the facilities has submitted a complete application for reissuance of their individual permit. EPA intends to treat the permit applications as NOIs, since the information provided in the applications is equivalent to the information required for an NOI.

Table 1 Existing Water Treatment Plants

Facility	NPDES Number
City of Bonners Ferry WTP	ID0020451
City of Sandpoint Sand Creek WTP	ID0024350
Laclede Water District WTP	ID0027944
City of Lewiston WTP	ID0026531
City of Pierce WTP	ID0020893
City of Weiser WTP	ID0001155
Wilderness Ranch Water WTP	ID0028312

B. Notice of Intent (NOI)

Any discharger seeking coverage under the DWGP must submit an NOI to the EPA, IDEQ State Office and applicable IDEQ Regional Office. Depending on the information provided, additional time may be necessary for EPA to authorize a discharge. The NOI must include certain information in order to receive EPA authorization to discharge under this NPDES permit. The NOI requirements are found in Part I.J. of the Draft DWGP. The following information is for a perspective new permittee to request a mixing zone.

a. Request for mixing zone

If a facility is requesting that IDEQ consider a mixing zone for one or more pollutant required to be limited by the category, the following additional information must be included in the NOI:

- i. A request, in writing, that IDEQ consider a mixing zone;
- ii. The analytical results from a minimum of one (1) representative ambient background sample for each pollutant for which a mixing zone is requested, collected from the receiving water at a location immediately upstream of the outfall. If additional data is available on the pollutant(s) included in the mixing zone request, submit it with the NOI information; and,

- iii. Calculate the applicable critical low flow of the receiving water and identify the source of the flow data. Calculate dilution factors for the receiving water as described in Section V.E. of the fact sheet accompanying this DWGP and show the calculations performed.
- iv. The dilution factors must be submitted to, and approved by the State Office and the appropriate Regional Office of IDEQ in Appendix B. The approved acute dilution factor must be a minimum of 30, and the approved chronic dilution factor must be a minimum of 52, to be eligible for consideration for requesting a mixing zone. Granting of a mixing zone is not limited to the dilution factors alone, but also include compliance with all applicable State laws and regulations, and subject to appropriateness after a public comment period, as determined by IDEQ.

b. Recommendation of Effluent Limits from IDEQ

When IDEQ grants a mixing zone for a facility requesting a mixing zone, notice of such determination shall be in writing, with a recommendation and rationale to EPA of the appropriate effluent limits for the facility.

C. Submitting the NOI and Supporting Information to EPA and Relevant Offices

The NOI must be sent to the following locations as well as to the appropriate IDEQ Regional Office address. See Appendix D for the latest addresses:

U.S. Environmental Protection Agency, Region 10
Office of Water and Watersheds, NPDES Permits Unit
1200 Sixth Avenue, Suite 900 (OWW-191)
Seattle, Washington 98101

Idaho Department of Environmental Quality, State Office
ATTN: 401 Program
1410 North Hilton Street
Boise, Idaho 83706

D. Authorization to Discharge

Applicants will be authorized to discharge as of the date of the written notification that the EPA has granted coverage under the DWGP. The state certification with a mixing zone authorization will be attached to EPA's written authorization, as necessary.

E. Notice of Termination of Discharge

In accordance with 40 CFR 122.64, EPA may terminate coverage or deny a renewal of coverage under the DWGP, for the following reasons:

- Noncompliance by the Permittee with any condition of the permit;
- The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time;
- A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or

- A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit (for example, plant closure or termination of discharge by connection to a POTW).

The Permittee may also request termination of coverage under the DWGP in accordance with 40 CFR 122.62, 122.64 and 124.5. The request must include a certification that the Permittee is not subject to any pending State or Federal enforcement actions including citizen suits brought under State or Federal law. The notification must be in writing and signed in accordance with the signatory requirements identified in 40 CFR 122.22. The notification must include the date that the discharger ceased operation, and the permit number assigned by the EPA. In cases of temporary shutdowns, a facility should not submit a notice of discharge termination, as this action results in the termination of NPDES coverage.

Termination of permit coverage under the DWGP will become effective 30 days after the Permittee receives written notification from EPA.

V. Rationale for Effluent Limitations and Standards

A. Statutory Requirements for Determining Effluent Limitations

Section 301(a) of the CWA, 33 USC § 1311(a), prohibits the discharge of pollutants to waters of the U.S. unless the discharge is authorized pursuant to an NPDES permit. Section 402 of the CWA, 33 USC § 1342, authorizes the EPA, or an approved state NPDES program, to issue an NPDES permit authorizing discharges subject to limitations and requirements imposed pursuant to CWA Sections 301, 304, 306, 401 and 403, 33 USC §§ 1311, 1314, 1316, 1341 and 1343.

In general, the CWA requires that the limits for a particular pollutant be the more stringent of either technology-based effluent limits (TBELs) or water quality-based effluent limits (WQBELs). TBELs are set according to the level of treatment that is achievable using available technology. WQBELs are designed to ensure that the state adopted, EPA approved, WQS of a waterbody are being met and they may be more stringent than TBELs.

EPA first determines which TBELs apply to a discharge in accordance with applicable national effluent limitation guidelines (ELGs) and standards. EPA further determines which WQBELs apply to a discharge based upon an assessment of the pollutants discharged and a review of state WQS. Monitoring requirements must also be included in the permit to determine compliance with effluent limitations. Effluent and ambient monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Technology-based Effluent Limitations

Section 301(b) of the CWA, 33 USC § 1311(b), requires technology-based controls on effluents. All NPDES permits must contain effluent limitations which: (a) control toxic pollutants and nonconventional pollutants through the use of “best available technology economically achievable” (BAT), and (b) control conventional pollutants through the use of “best conventional pollutant control technology” (BCT). In no case may BAT or BCT be less stringent than the “best practical control technology currently achievable” (BPT), which is the minimum level of control required by Section 301(b)(1)(A) of the CWA, 33 USC § 1311(b)(1)(A).

The intent of a TBEL is to require a minimum level of treatment for industrial point sources based on currently available treatment technologies while allowing a discharger to choose and use any available control technique to meet the limitations. Accordingly, every individual member of a discharge class or category is required to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices.

Note that, EPA has selected the “drinking water treatment point source category” as a candidate for effluent guidelines rulemaking. At this time, EPA has made no decisions about whether any discharge controls are necessary for residuals produced by drinking water treatment facilities. Additional information on this rulemaking may be found at: <http://www.epa.gov/waterscience/guide/dw/>

Where EPA has not yet developed effluent limitation guidelines, pursuant to Section 301(b) of the CWA, for a particular industry or a particular pollutant, technology-based limitations must be established using best professional judgment (BPJ) (40 CFR § 122.43, 12.44, and 125.3). Because there are no ELGs developed by EPA for discharges from the water treatment industry, EPA established technology-based effluent limitations based on BPJ for TSS and total residual chlorine.

Total Suspended Solids

For the discharge authorized by the permit, EPA is establishing TSS effluent limits of 30 mg/l (average monthly limit) and 45 mg/l (maximum daily limit). EPA is establishing these technology-based effluent limits in the permit utilizing BPJ to meet the requirements of BCT/BAT.

Existing individual permits for water treatment plants in Idaho have limits of 30 mg/l and 45 mg/l (monthly average and daily maximum). The facilities have been in compliance with these limits. In establishing the TSS limitations for this permit, EPA is also relying on research performed for the EPA in 1987. (SAIC, Model Permit Package for the Water Supply Industry, EPA Contract No. 68-01-7043) This study considered sedimentation lagoons as the model treatment for BCT based on a finding that 76 percent of WTPs surveyed had used this technology for wastewater treatment. Analysis of 76 individual NPDES permits for WTPs determined that limitations of 30 mg/l and 45 mg/l were representative of current permitting practice for average monthly and daily maximum TSS limits, respectively. And, analysis of monitoring data for sedimentation lagoons within the industry resulted in calculation of 95th percent occurrence (monthly average) and 99th percent occurrence (daily maximum) levels of treatment of 28.1 mg/l and 44.4 mg/l, respectively. These levels of treatment performance were considered Best Practicable Technology Currently Available (BPT), and subsequent analysis determined that BPT was equal to BCT. The study identified 30 mg/l and 45 mg/l to be the monthly average and daily maximum TSS limits for a model NPDES permit.

Total Residual Chlorine

There are no applicable ELGs for total residual chlorine in discharges from water treatment plants. The EPA established TBELs for total residual chlorine based on BPJ in individual permits of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit). EPA established chlorine limits in the draft DWGP based on these TBELs when mixing zones are granted (see discussion below).

B. Water Quality-based Effluent Limitations for pH and Total Residual Chlorine

Section 301(b)(1)(C) of the CWA and implementing regulations at 40 CFR § 122.44(d) require permits to include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. If such WQBELs are necessary, they must be stringent enough to ensure that water quality standards are met, and they must be consistent with any available waste load allocation. For pollutants with technology-based limits, EPA must also determine whether the technology-based limits will be protective of the corresponding water quality criteria.

The draft permit includes WQBELs for pH and for total residual chlorine. Appendix C provides a discussion of the steps involved in developing WQBELs for total residual chlorine.

Total Residual Chlorine

The State of Idaho, has established applicable water quality criteria of 19 µg/l and 11 µg/l total chlorine residual for acute and chronic concentrations, respectively, for the protection of aquatic life. EPA conducted a Reasonable Potential analysis to determine if the TBEL would violate Idaho Water Quality Standards.

The results of the analysis show that the TBEL for Total Residual Chlorine would cause a violation of Idaho Water Quality Standards (see Appendix C) if a mixing zone is not granted. This indicates that a water quality based effluent limit is necessary when a mixing zone is not granted by IDEQ.

Therefore, the draft permit includes the TBELs for total residual chlorine of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit) for facilities that are granted a mixing zone, and when a mixing zone is not granted, the effluent limit for chlorine is 9 µg/l for the Average Monthly Limit and 18 µg/l for the Maximum Daily Limit. Please note that the laboratory method for quantification of Total Residual Chlorine (Minimum Level or ML) has improved from 0.1 mg/L to 0.05 mg/L. Since the water quality based effluent limits for Total Residual Chlorine are much lower than the ML, the EPA will use 50 µg/l as the compliance evaluation level for this parameter (see footnote 1 in Table 2).

pH

At IDAPA 58.01.02.250, the State has established applicable water quality criteria for pH in receiving waters of 6.5 to 9.0. To assure protection of the applicable water quality criteria, the pH range of 6.5 to 9.0 is being established as an end of pipe discharge limitation by the draft permit.

Table 2 Proposed Effluent Limitations

Parameter	Units	AML	MDL	Designated Use in Idaho WQS Linked to Specific Water Quality Criteria Used as Basis for Limits or BPJ
TSS	mg/l	30	45	BPJ
Total Residual Chlorine (TRC) ¹	mg/L	0.01	0.02	Water Quality Based
pH	standard units	Not less than 6.5 or greater than 9.0 standard units (s.u.)		Water Quality Based
Total Phosphorus	Mg/l	1.75	3.5	Based on WLA in TMDL for City of Weiser only
Note: 1. The limits for chlorine are not quantifiable using EPA-approved analytical methods. The minimum level (ML) for chlorine is 50 µg/l for this parameter. The EPA will use 50 µg/l as the compliance evaluation level for this parameter. The permittee will be in compliance with the total residual chlorine limitations if the average monthly and maximum daily concentrations are less than 50 µg/l. If a mixing zone is approved, the final effluent limitation shall not exceed the TBEL effluent limitation of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit) 2. The City of Weiser WTP has a WLA for Total Phosphorus (AML = 1.75 mg/l and 6.1 lbs/day; and, MDL = 3.5 mg/l and 12 lb/day) and must also comply with those limitations.				

C. Calculation of Effluent Limits

There are only three numerical effluent limits required by this General Permit: TSS, pH, and Total Residual Chlorine. City of Weiser also has limits for TP per TMDL. Among these three numerical effluent limitations, only Total Residual Chlorine limits are calculated based on site-specific Idaho WQS that included as applicable, an allowable mixing zone. Limitations of TSS and pH are “end of pipe”

limits, and no mixing zone is allowed. Information on how Total Residual Chlorine limits are derived is shown in the paragraphs below.

D. Minimum Levels

The water quality based effluent limits for total residual chlorine are not quantifiable using the most sensitive method for analysis under 40 CFR Part 136.

The Minimum Level (ML) for Total Residual Chlorine is 50 µg/l. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The permittee will be in compliance with the water quality based effluent limit for chlorine provided the concentration of chlorine is at or below 50 µg/L.

E. Mixing Zone Considerations

A mixing zone is an allocated impact zone where state WQS can be exceeded so long as acutely toxic conditions are prevented. It is a defined area or volume of the receiving water adjacent to or surrounding a wastewater discharge where the receiving water, as a result of the discharge, may not meet all applicable water quality criteria. Mixing zones should be as small as practicable. A mixing zone is considered a place where wastewater mixes with receiving water and is based upon the dilution available and the assimilative capacity of the receiving water.

IDEQ's Policy

The EPA allows states to adopt mixing zone regulations as part of the state's WQS [40 CFR 131.13]. IDEQ's mixing zone policy is stated in IDAPA 58.01.02.060.

Request for Mixing Zone

While the proposed WQBELs are applied at the end-of-pipe, facilities seeking coverage under this DWGP may apply for and obtain a mixing zone through submission of the required NOI information to the EPA and IDEQ. In order to receive a mixing zone for a specific POC, a facility must first request on the NOI that IDEQ and the EPA consider a mixing zone. See Part I.J.2.h. of the Draft DWGP.

In the NOI, the Permittee requesting a mixing zone also must calculate a dilution factor (DF) as follows:

Figure 1. Dilution Factor Equation

$$DF = \frac{Q_e + Q_u \times \%MZ}{Q_e}$$

Where:

- DF = Dilution Factor
- Q_e = Maximum flow rate of the discharge in cubic feet per second (cfs)
(1 gpm = 0.00223 cfs)
- Q_u = Receiving water low flow rate upstream of the discharge (1Q10, 7Q10, 30B3, etc)
- %MZ = Percent Mixing Zone

Low flows for the receiving water may be estimated by use of available information such as nearby USGS stream gauging station, using historic stream flow data, calculations based on drainage area, information from state water quality offices, or other means. Whichever method is selected, the source of the low flow value(s) used by the applicant must be included on NOI. Stream flow data from USGS

gauge sites can be downloaded at the following web site:

<http://nwis.waterdata.usgs.gov/usa/nwis/discharge>. In addition, the computer software program DFLOW is a flow analysis tool for calculating 7Q10 and other critical low flow values, and can be downloaded at <http://water.epa.gov/scitech/datait/models/dflow/index.cfm>

After the proper information for the mixing zone request is submitted on the NOI, IDEQ will consider this request and determine if a mixing zone is appropriate for the particular receiving water and POC(s). IDEQ may also require biological information about the receiving water in order to determine if a mixing zone is appropriate. If IDEQ determines a mixing zone is appropriate, it provides the CWA § 401 certification that grants the Permittee the mixing zone.

Comments on the state 401 certification may be directed to IDEQ (See Page 2 of this fact sheet). The mixing zone decision document/401 certification will be attached to EPA's written authorization to discharge.

Mixing zones are available on a case-by-case basis for TRC. TBELs do not address water quality considerations, and therefore, mixing zones do not apply to TBELs. They represent the minimum level of treatment that must be imposed in a permit under CWA § 402 [40 CFR 125.3(a)].

In the draft certification, IDEQ has provided mixing zones for the following facilities, thereby allowing the facilities to have TBELs for chlorine: City of Bonners Ferry WTP, City of Lewiston WTP, City of Weiser WTP, Wilderness Ranch WTP, and Laclede WTP. IDEQ has implemented a policy to minimize the size of mixing zones so that they are as small as possible. See Idaho's policy on mixing zones at IDAPA 58.01.02.060. The minimum allowable mixing zone was calculated for each facility. (See Appendix B.) The Laclede Water District WTP was not provided a mixing zone in the existing permit. The facility discharges to the ground, the discharge flows approximately one-third mile before reaching the Pend Oreille River. IDEQ considers the Pend Oreille River the receiving water for this facility and is authorizing a mixing zone.

F. Antidegradation and Clean Water Act Section 401 Certification

In addition to TBELs or WQBELs for pollutants that could cause or contribute to exceedances of numeric or narrative criteria, EPA must consider the state's antidegradation policy which is included in the state's CWA §401 certification of the permit.

Except for the Laclede Water District WTP, no effluent limits in the draft DWGP are less stringent than in the existing individual permits. IDEQ authorized a mixing zone for the Laclede Water District WTP in the Pend Oreille River resulting in less stringent limits for Total Residual Chlorine. Antidegradation justifications in connection to less stringent effluent limitations for Total Residual Chlorine are found in Idaho's Section 401 Certification. See also the anti-backsliding discussion below.

Under Idaho's Antidegradation Policy [IDAPA 58.01.02.051], a water body is afforded Tier 1, Tier 2, or Tier 3 protections depending on the support status of the beneficial uses that are either designated in Idaho's Water Quality Standards [IDAPA 58.01.02, Sections 110-160] or have been determined to exist in that water body [IDAPA 58.01.02.010.37].

The IDEQ employs a water body-by-water body approach to implementing its antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality [IDAPA 58.01.02.052.05.a]. Any water body 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].

- **Tier 1 Protection.** The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected [IDAPA 58.01.02.051.01; 58.01.02.052.01]. The proposed permit would allow discharges to Tier 1 waters as long as the discharge meets the appropriate water quality standards at the point of discharge, prior to mixing with the receiving waters.
- **Tier 2 Protection.** The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development [IDAPA 58.01.02.051.02; 58.01.02.052.08]. Discharges to Tier 2 waters can only be covered under this general permit if DEQ provides an individual CWA §401 certification to the applicant. The individual certification will include an evaluation of the effect of the discharge on water quality in the receiving water body (IDAPA 58.01.02.052.06) and will be included in EPA's discharge authorization letter to the applicant.
- **Tier 3 Protection.** The third level of protection applies to water bodies that have been designated outstanding resource waters (ORWs) and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09). The State of Idaho has not yet designated any waters as ORWs; however, should waters become designated as such during the five year cycle of this permit, those waters shall be excluded from coverage under the permit. Discharges to Tier 3 waters will be required to obtain an individual NPDES permit by EPA, and individual § 401 certification by IDEQ.

See Appendix E for the State's draft 401 water quality certification. The EPA has reviewed Idaho's antidegradation review and finds that it is consistent with the CWA § 401 certification requirements and the State's antidegradation implementation procedures. Comments on the § 401 certification, including the antidegradation review, can be submitted to the IDEQ as set forth above (see the State Certification Section at the beginning of this document).

G. Antibacksliding

Section 402(o)(2) of the Clean Water Act and federal regulations at 40 CFR 122.44(l) generally prohibit the renewal, reissuance or modification of an existing NPDES permit that contains effluent limits, permit conditions or standards that are less stringent than those established in the previous permit (i.e., anti-backsliding) but provides limited exceptions. Section 402(o)(1) of the CWA states that a permit may not be reissued with less stringent limits established based on Sections 301(b)(1)(C), 303(d) or 303(e) (i.e. WQBELs or limits established in accordance with state treatment standards) except in compliance with Section 303(d)(4). Section 402(o)(1) also prohibits backsliding on TBELs established using BPJ [i.e. based on Section 402(a)(1)(B)].

Section 303(d)(4) of the CWA states that, for water bodies where the water quality meets or exceeds the level necessary to support the water body's designated uses, WQBELs may be revised as long as the revision is consistent with the State's antidegradation policy and as long as the provisions at CWA 303(d)(4) are met.

This is a new general permit. EPA compared the proposed effluent limitations in the Draft DWGP to effluent limits established in individual permits for the drinking water treatment plants. The Total Residual Chlorine limits for the Laclede Water District WTP are the only effluent limits in the draft DWGP that are less stringent than an existing individual permit. The less stringent limits are consistent with the State’s antidegradation analysis (see Draft 401 certification). Therefore, backsliding of the limit is allowed.

VI. Monitoring and Reporting Requirements

A. Basis for Effluent and Surface Water Monitoring

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

The Permittee is responsible for conducting the monitoring and for reporting results on DMRs or on the application for renewal, as appropriate, to the EPA. Permittees must analyze water samples using a sufficiently sensitive EPA approved analytical method.

B. Monitoring Location(s)

Discharges authorized by this permit must be monitored at each outfall identified in the NOI.

C. Monitoring Frequencies

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 must be used for averaging if they are conducted using the EPA-approved test methods (generally found in 40 CFR 136) or as specified in the permit.

Table 3 Effluent Monitoring

Parameter	Units	Monitoring Frequency	Type of Sample
Outfall Flow	gpd	Daily ¹	Estimate
pH	pH units	Weekly	Grab
TSS	mg/l	Monthly	Grab
Total Residual Chlorine ²	mg/l	Weekly	Grab
Metals ^{3,4}	µg/l	Annually	Grab
THHMs ^{4,5}	µg/l	Quarterly	Grab
Turbidity	NTUs	Monthly	Grab
Aluminum ⁶	µg/l	Annually	Grab
Temperature	°C	Weekly	Grab
Hardness ⁷	mg/l as CaCO ₃	Monthly	Grab

1. Report average monthly and maximum daily gallons per day (gpd)
2. Chlorine monitoring is only required for those facilities that use chlorine in the treatment process.
3. Metals include: antimony, arsenic, beryllium, cadmium, total chromium, copper, lead, nickel, selenium, silver, thallium, and zinc. These parameters must be measured and reported as total recoverable.
4. A minimum of 10 samples required within 5 years. Quarters are defined as: January to March; April to June; July to September; and, October to December.
5. Analysis for chloroform, chlorodibromomethane, dichlorobromomethane, and bromoform.
6. Monitoring only required where alum is used in the drinking water treatment process.
7. Hardness shall be sampled at the same time metal samples are collected.

Table 4 Additional Effluent Monitoring for Weiser WTP			
Parameter	Units	Monitoring Frequency	Type of Sample
Total Phosphorus	mg/l	Annually ¹	Grab
1. Collected in July.			

D. Submission of Discharge Monitoring Reports

Facilities covered by the DWGP will be required to submit DMRs to EPA Region 10 and the appropriate IDEQ Regional Office. The Draft DWGP includes a provision to require the Permittee to submit DMR data electronically via a secure internet application using NetDMR, a national web-based tool, within six months of the effective date of the Permit. NetDMR allows participants to discontinue mailing in the paper forms that are required under 40 CFR 122.41. Once a Permittee begins submitting reports using NetDMR, it is no longer required to submit paper copies of DMRs or other reports to the EPA or the State of Idaho. The Permittee may use NetDMR after requesting and receiving permission from EPA Region 10.

VII. Special Conditions

A. Quality Assurance Plan (QAP)

Federal regulations at 40 CFR §122.41(e) require Permittees to properly operate and maintain their facilities, including “adequate laboratory controls and appropriate quality assurance procedures.” In order to implement this requirement, the draft DWGP Part III.A, requires that the Permittee develop or update a Quality Assurance Plan (QAP) that ensures that the monitoring data submitted to EPA are complete, accurate, and representative of the environmental or effluent conditions and to explain data anomalies if they occur. The permittee is required to complete the QAP (or update an existing QAP) within 180 days of receiving authorization to discharge under the DWGP. The QAP must include standard operating procedures the permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting. The plan must be retained on site and be made available to the EPA and the IDEQ upon request.

B. Best Management Practices (BMP) Plan

The EPA regulations at 40 CFR §122.44(k) provide for requirements to include best management practices (BMPs) in NPDES permits to control or abate the discharge of pollutants whenever necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

The Draft DWGP, Part III.B, requires the development and implementation of a BMP Plan, which prevents or minimizes the generation and potential release of pollutants from the facility to the waters of the United States through best management practices. This includes, but is not limited to, material storage areas, site runoff, storm water, in-plant transfer, process and material handling areas, loading or unloading operations, spillage or leaks, sludge and waste disposal, or drainage from raw material storage. The BMP Plan should incorporate elements of pollution prevention as set forth in the Pollution Prevention Act of 1990 (42 U.S.C. § 13101).

New Permittees under this DWGP must certify and notify EPA in writing that the BMP Plan has been developed and will be implemented on-site prior to any authorized discharge under this Permit. The certification must be signed in accordance with the Signatory Requirements in Part VI.G of this DWGP. Existing Permittees without a previous BMP Plan in place must develop a BMP Plan within 90 days of

the effective date of this DWGP and certify to EPA and IDEQ in writing, in accordance with Part III.B, the development and implementation of the BMP Plan. The BMP Plan must be amended whenever there is a change in the facility or in the operation of the facility which materially increases the potential for an increased discharge of pollutants. The BMP Plan is an enforceable condition of the DWGP; therefore, a violation of the BMP Plan is a violation of the Permit.

VIII. Environmental Justice Considerations

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities.” The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. “Overburdened” communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. As part of an agency-wide effort, the EPA Region 10 has considered implementing enhanced public involvement opportunities for EPA-issued permits where facilities’ discharge to waters in overburdened communities. For more information, please visit <http://www.epa.gov/compliance/ej/plan-ej/>.

As part of the General Permit development process, the EPA Region 10 conducted a screening analysis to determine whether this permit action could affect overburdened communities. The EPA used a nationally consistent geospatial tool that contains demographic and environmental data for the United States at the Census block group level. This tool is used to identify permits for which enhanced outreach may be warranted. As part of the screening process, it was determined that one of the seven facilities (City of Weiser WTP) which is already permitted and is expected to be covered by this general permit is located near an assumed overburdened community.

Region 10 Environmental Justice and NPDES permits staff conducted a more in-depth review of the facility, including such factors as fishing/shellfish/subsistence activities nearby, proximity to overly burdened communities, and whether the facility poses a threat to public health. In short, the EPA does not believe that conventional water treatment plants present an environmental justice concern. WTPs do not pose a health threat, and are not considered to be sources of pathogens that threaten human health.

Regardless of whether a facility is located near a potentially overburdened community, the EPA encourages Permittees to review (and to consider adopting, where appropriate) “Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways to Engage Neighboring Communities” (see <https://www.federalregister.gov/articles/2013/05/09/2013-10945/epa-activities-to-promote-environmental-justice-in-the-permit-application-process#p-104>). Examples of promising practices include thinking ahead about community’s characteristics and the effects of the permit on the community, engaging the right community leaders, providing progress or status reports, inviting members of the community for tours of the facility, providing informational materials translated into different languages, setting up a hotline for community members to voice concerns or request information, follow up, and other activities.

IX. Other Legal Requirements

A. Endangered Species Act [16 USC § 1531 et al.]

Section 7 of the Endangered Species Act (ESA) requires federal agencies to consult with National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) and the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered species. The EPA developed a draft Biological Evaluation (BE) to address potential impacts to ESA species. The EPA believes that the proposed permit would have no effect on endangered species.

B. National Environmental Policy Act (NEPA) [42 USC § 4321 et seq.] and Other Federal Requirements

Regulations at 40 CFR § 122.49, list the federal laws that may apply to the issuance of permits i.e., ESA, National Historic Preservation Act, the Coastal Zone Act Reauthorization Amendments (CZARA), NEPA, and Executive Orders, among others. The NEPA compliance program requires analysis of information regarding potential impacts, development and analysis of options to avoid or minimize impacts; and development and analysis of measures to mitigate adverse impacts.

Due to the fact that drinking water treatment facilities do not have any EPA-approved ELGs or new source performance standards (NSPS) specific to their operation, EPA determined that no Environmental Assessments (EAs) or Environmental Impact Statements (EISs) are required under NEPA. Idaho is not located in the U.S. coastal zone, so CZARA does not apply either. In addition, the DWGP will not authorize the construction of any water treatment facility on historical property, and does exclude receiving waters with Wild and Scenic River designations. Therefore, EPA has determined that the National Historic Preservation Act and the Wild and Scenic Rivers Act do not apply to the issuance of the DWGP.

C. State Certification

Section 401 of the CWA, 33 USC 1341, requires EPA to seek a certification from the state that the conditions of the Draft DWGP are stringent enough to comply with Idaho WQS, including the state antidegradation policy, before issuing the final permit. Federal regulations at 40 CFR § 124.53 allow for the state to stipulate more stringent conditions in the permit, if the certification cites the CWA or state law upon which that condition is based.

In addition, the regulations require that the State certification include statements on the extent to which each condition of the permit may be made less stringent without violating the requirements of State law. EPA previously required that the IDEQ review the Draft DWGP and provide a draft certification pursuant to 40 CFR § 124.53. The IDEQ provided EPA with its draft CWA § 401 certification for the draft DWGP on April 21, 2016. See Appendix E.

After the public comments have been evaluated and addressed, a preliminary final DWGP will be sent to the State to begin the final certification process. If the state authorizes different or additional conditions as part of the certification, the permit may be changed to reflect these conditions.

D. Essential Fish Habitat

Essential fish habitat (EFH) is the waters and substrate (sediments, etc.) necessary for fish to spawn, breed, feed, or grow to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (January 21, 1999) requires the EPA to consult with NOAA Fisheries when a proposed discharge has the potential to adversely affect EFH (i.e., reduce quality and/or quantity of EFH).

The EFH regulations define an adverse effect as any impact which reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The EPA has determined that based on the nature of the discharge there would be No Effect to EFH.

The EPA has determined that issuance of this permit is not likely to adversely affect EFH within the State of Idaho. The EPA has provided NOAA Fisheries with copies of the draft permit and fact sheet during the public notice period. Any comments received from NOAA Fisheries regarding EFH will be considered prior to reissuance of this permit.

E. Permit Expiration

This general permit will expire five (5) years from the effective date of the permit.

F. Standard Permit Provisions

Specific regulatory management requirements for NPDES permits are contained in 40 CFR §122.41. These conditions are included in the Draft DWGP in Parts V-VII as standard regulatory language that must be included in all NPDES permits. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

X. REFERENCES

EPA. 1991. Technical Support Document for Water Quality-Based Toxics Control. U.S. Environmental Protection Agency, Office of Water, EPA/505/2-90-001, March 1991.
<http://www.epa.gov/npdes/pubs/owm0264.pdf>

EPA. 2010. U.S. EPA NPDES Permit Writers' Manual. U.S. Environmental Protection Agency, Office of Water, EPA-833-K-10-001, September 2010.
http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45

IDEQ. 2013. Idaho Water Quality Standards (IDAPA 58.01.02) web site.
<http://adminrules.idaho.gov/rules/current/58/0102.pdf>. Accessed September 3, 2013.

APPENDIX A. EXISTING CONVENTIONAL FILTRATION DISCHARGERS

The following are facilities that EPA intends to provide coverage for under the DWGP. Each of these facilities currently has administrative coverage under an individual permit. Some of the facilities have sufficient dilution to have TBELs for total residual chlorine, with their previously determined dilution factors as shown below.

Table A-1: Existing Water Treatment Facilities

Water Treatment Facility	NPDES Number	Outfall		Max. Daily Effluent Flow ^{1,2} (gpd)	Dilution Factors at 25% MZ	
		Latitude	Longitude		Acute	Chronic
City of Bonners Ferry WTP	ID0020451	48° 41' 44"	116° 18' 13"	131,100 (was 30,000)	5,375	5,537
City of Sandpoint Sand Creek WTP	ID0024350	48° 19' 13"	116° 34' 14"	152,000 (was 77,950)	1	1
Laclede Water District WTP	ID0027944	48° 9' 41"	116° 45' 14"	53,000 (was 20,000)	14,578	16,343
City of Lewiston WTP	ID0026531	46° 25' 15"	116° 59' 24"	1,820,000 (was 550,000)	200.4	219.9
City of Pierce WTP	ID0020893	46° 29' 43"	115° 47' 49"	108,000 (was 36,000)	1	1
City of Weiser WTP ²	ID0001155	44° 14' 22"	116° 58' 16"	736,000 ² (was 185,000)	5,172	5,370
Wilderness Ranch WTP ³	ID0028312	43° 40' 23"	115° 58' 51"	No Data (was previously 20,000)	200	219.5

Notes:

1. Maximum Daily Effluent Flow based on Discharge Monitoring Reports during the previous permit cycle, and information from the permittee.
2. City of Weiser WTP was upgraded in 2007, currently discharges only for backup purposes. 736,000 gallons per day was discharged for a day in Aug. 2009 due to an operating systems failure.
3. Maximum Daily Effluent Flow for Wilderness Ranch WTP is based on the previous fact sheet. The facility did not report any value in the previous permit cycle DMRs, and estimates that any discharge is very small. 20,000 gpd is a conservative assumption for this facility.
4. Dilution Factors are based on 25% Mixing Zone, and Maximum Daily Effluent Flow.

Table A-2: Receiving Water Information					
Facility	Receiving Water	Hydrologic Unit Code (HUC)	Tribal Waters	Beneficial Uses	Impairment
City of Bonners Ferry WTP	Kootenai River	17010104 P-29	No	cold, ss, pcr, dws	Temperature
City of Sandpoint Sand Creek WTP	Little Sand Creek	17010214 P-53	No	cold, pcr	Pend Oreille River, sediment
Laclede Water District WTP	Pend Oreille River	17010214 P-2	No	cold, pcr, dws	Pend Oreille River, sediment, temperature, total dissolved gas
City of Lewiston WTP	Clearwater River	17060306 C-1	No	cold, pcr, dws	Not Listed – Tier II Waters
City of Pierce WTP	Canal Creek	17060306	No	cold, pcr	Not Listed – Tier II Waters
City of Weiser WTP	Snake River	1705115 SW-1	No	cold, pcr, dws	Nutrients, TSS TMDL Complete https://www.deq.idaho.gov/media/454498-snake_river_hells_canyon_entire.pdf
Wilderness Ranch WTP	Mores Creek	17050112 SW-9	No	cold, ss, pcr, dws	Temperature and sediment
Beneficial Uses: cold = cold water aquatic life, ss = salmonid spawning, pcr = primary contact recreation, dws = drinking water source					

Table A-3: Receiving Water Low Flows Information			
Facility	Information Source	1Q10 (cfs)	7Q10 (cfs)
City of Bonners Ferry WTP	Upstream USGS Gauge: #12305000	4,360	4,500
City of Sandpoint Sand Creek WTP	None Available	---	---
Laclede Water District WTP	Upstream USGS Gauge: #12395500	4,790	5,370

City of Lewiston WTP	Upstream USGS Gauge: #3342500	2,250	2,470
City of Pierce WTP	Not Available	---	---
City of Weiser WTP	Downstream USGS Gauge: #13269000	5,900	6,126
Wilderness Ranch WTP	Downstream USGS Gauge: #13200000	6.2	6.8

Table A-4: Proposed Total Residual Chlorine Effluent Limitations

System Name	Total Residual Chlorine Effluent Limitations (mg/l)	
	Average Monthly Limit	Maximum Daily Limit
City of Bonners Ferry WTP	0.3	0.5
City of Sandpoint Sand Creek WTP	0.01	0.02
Laclede Water District WTP	0.3	0.5
City of Lewiston WTP	0.3	0.5
City of Pierce WTP	0.01	0.02
City of Weiser WTP	0.3	0.5
Wilderness Ranch WTP	0.3	0.5
Note:		
1. No mixing zone authorized for City of Sandpoint Sand Creek WTP, and City of Pierce WTP from Idaho DEQ.		

APPENDIX B. POLLUTANT SPECIFIC ANALYSIS OF EFFLUENT LIMITATIONS AND RATIONALES

This Section provides a brief discussion of the individual pollutants that are included in the Draft DWGP, the proposed effluent limitations, and the rationale for these limits. A summary of the effluent limitations for each pollutant, along with the bases for the limits is provided below.

1. Total Suspended Solids (TSS)

Solids are considered a “conventional pollutant” (as opposed to toxic). Suspended materials in water can cause turbidity, discoloration, interruption of light passage for aquatic growth, coating of fish gills, and sedimentation on stream bottoms interfering with egg laying and feeding.

EPA is establishing technology-based effluent limits of 30 mg/l (average monthly limit) and 45 mg/l (maximum daily limit) for TSS utilizing BPJ to meet the requirements of BCT/BAT. Existing individual permits for water treatment plants in Idaho have limits of 30 mg/l and 45 mg/l (monthly average and daily maximum). The facilities have been in compliance with these limits. In establishing the TSS limitations for the permits, EPA is relying on research performed for the EPA in 1987. (SAIC, Model Permit Package for the Water Supply Industry, EPA Contract No. 68-01-7043). This study considered sedimentation lagoons as the model treatment for BCT based on a finding that 76 percent of WTPs surveyed had used this technology for treatment of process wastewaters. Analysis of 76 individual NPDES permits for WTPs determined that limitations of 30 mg/l and 45 mg/l were representative of current permitting practice for average monthly and daily maximum TSS limits, respectively. And, analysis of monitoring data for sedimentation lagoons within the industry resulted in calculation of 95th percent occurrence (monthly average) and 99th percent occurrence (daily maximum) levels of treatment of 28.1 mg/l and 44.4 mg/l, respectively. These levels of treatment performance were considered Best Practicable Technology Currently Available (BPT), and subsequent analysis determined that BPT was equal to BCT. The study identified 30 mg/l and 45 mg/l to be the monthly average and daily maximum TSS limits for a model NPDES permit.

2. Total Residual Chlorine:

EPA has established a technology-based effluent limit for Total Residual Chlorine (TRC) in discharges from water treatment plants. The State of Idaho has water quality criteria of 19 µg/l and 11 µg/l total chlorine residual for acute and chronic concentrations, respectively, for the protection of aquatic life.

Because of the common use of chlorine for disinfection in drinking water treatment plants, EPA has determined that there is reasonable potential for wastewater discharges from water treatment plants to cause an exceedance of the numeric criteria. Therefore, following methods presented in the *TSD*, WQBELs for total residual chlorine were developed to be protective of water quality criteria. These limitations are included in the draft permit.

For wastewaters authorized by this GP, EPA is establishing TRC effluent limits of 9 µg/l (average monthly limit) and 18 µg/l (maximum daily limit). The reasonable potential and water quality based effluent limit calculations are included in Appendix C.

Therefore, the draft permit includes the TBELs for total residual chlorine of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit) for facilities that are granted a mixing zone, and when a mixing zone is not granted, the effluent limit for chlorine is 0.01 mg/l (rounded from 9 µg/l) for the Average Monthly Limit and 0.02 mg/l (rounded from 18 µg/l) for the Maximum Daily Limit.

Pollutants of Concern		CHLORINE (Total Residual)	
Effluent Data	Number of Samples in Data Set (n)	1	
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)	0.6	
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C _e)		
	Calculated 50 th % Effluent Conc. (when n>10), Human Health Only		
Dilution Factors	Aquatic Life - Acute	1Q10	1.000
	Aquatic Life - Chronic	7Q10 or 4B3	1.000
	Ammonia	30B3 or 30Q10	-
	Human Health - Non-Carcinogen	30Q5	1.000
	Human Health - carcinogen	Harmonic Mean	1.000
Receiving Water Data	90 th Percentile Conc., µg/L - (C _u)		
	Geometric Mean, µg/L, Human Health Criteria Only		
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	19
	Aquatic Life Criteria, µg/L	Chronic	11
	Human Health Water and Organism, µg/L		--
	Human Health, Organism Only, µg/L		--
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute	0.000
		Chronic	0.000
	Carcinogen (Y/N), Human Health Criteria Only		--

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2 = \ln(CV^2 + 1)$		0.555
P _n	$= (1 - \text{confidence level})^{1/n}$ where confidence level =	99%	0.010
Multiplier (TSD p. 57)	$= \exp(2.326\sigma - 0.5\sigma^2) / \exp[\text{invnorm}(P_N)\sigma - 0.5\sigma^2]$, prob. =	99%	13.2
Statistically projected critical discharge concentration (C _d)			0.00
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone (note: for metals, concentration as dissolved using conversion factor as translator)		Acute	0.00
		Chronic	0.00
Reasonable Potential to exceed Aquatic Life Criteria			yes

Aquatic Life Effluent Limit Calculations

Number of Compliance Samples Expected per month (n)			1
n used to calculate AML (if chronic is limiting then use min=4 or for ammonia min=30)			4
LTA Coeff. Var. (CV), decimal (Use CV of data set or default = 0.6)			0.600
Permit Limit Coeff. Var. (CV), decimal (Use CV from data set or default = 0.6)			0.600
Acute WLA, ug/L	$C_d = (\text{Acute Criteria} \times MZ_a) - C_u \times (MZ_a - 1)$	Acute	19.0
Chronic WLA, ug/L	$C_d = (\text{Chronic Criteria} \times MZ_c) - C_u \times (MZ_c - 1)$	Chronic	11.0
Long Term Ave (LTA), ug/L (99 th % occurrence prob.)	WLA _c x exp(0.5σ ² -2.326σ)	Acute	6.1
	WLA _a x exp(0.5σ ² -2.326σ); ammonia n=30	Chronic	5.8
Limiting LTA, ug/L	used as basis for limits calculation		5.8
Applicable Metals Criteria Translator (metals limits as total recoverable)			--
Average Monthly Limit (AML), ug/L, where % occurrence prob =		95%	9
Maximum Daily Limit (MDL), ug/L, where % occurrence prob =		99%	18
Average Monthly Limit (AML), mg/L			0.009
Maximum Daily Limit (MDL), mg/L			0.018

Minimization of Authorized Mixing Zones for Total Residual Chlorine

Consistent with IDEQ’s policy to minimize the authorized mixing zone, IDEQ requested that EPA calculate the minimum mixing zones for the facilities initially covered by the General Permit. Initially, 5 facilities are eligible for mixing zones. These 5 water treatment facilities are: City of Bonner Ferry WTP, Laclede Water District WTP, City of Lewiston WTP, City of Weiser WTP, and Wilderness Ranch WTP. Additionally, facilities that do not have sufficient dilution are ineligible to be authorized a mixing zone.

Minimizing the authorized mixing zones for total residual chlorine would involve determining the smallest mixing zone (that is less than 25% of river flow) that would not cause reasonable potential to exceed Idaho’s water quality standards for Total Residual Chlorine having Acute Criteria of 19 µg/l; and, Chronic Criteria of 11 µg/l. EPA determined that in this case, the Chronic Criteria is the driving factor for this calculation because the Chronic Criteria of 11 µg/l is significantly smaller than the Acute Criteria of 19 µg/l, and each facility eligible for mixing zone minimization have similar acute and chronic dilution factors.

To calculate the minimum mixing zones for Total Residual Chlorine, EPA compared the facility’s chronic dilution factor (based on 25% Mixing Zone) with the minimum chronic dilution factor of 52 (as determined in Appendix C) that would not exceed Idaho WQS. For example, for the Wilderness Ranch WTP which has a Chronic dilution factor of 219.5 at 25% mixing zone; the minimum percent mixing zone for this facility is: 52 D.F. (minimum) divided by 219.5 D.F of the facility, times 25%, calculates to 5.92% of river flow; when rounded up to the nearest percentage, the minimum percent mixing zone would be 6% of river flow. Using this method of proportion, the minimum mixing zones are calculated:

Facility	Chronic Dilution Factor based on 25% Mixing Zone	Minimum Percent Mixing Zone for Total Residual Chlorine
City of Bonners Ferry WTP	5,537	0.23% (1%)
City of Lewiston WTP	219.9	5.91% (6%)
City of Weiser WTP	5,370	0.24% (1%)
Laclede Water District WTP	16,343	0.08% (1%)
Wilderness Ranch WTP	219.5	5.92% (6%)
Note: Minimum Mixing Zones for Total Residual Chlorine is rounded up to the nearest 1% per IDEQ policy. The rounded value is shown in parenthesis.		

3. pH

There are no applicable technology-based effluent guidelines for pH in discharges from water treatment plants. The State of Idaho WQS set surface water quality criteria for aquatic life use designations of the State’s surface waters. The general criteria in Section 250 of the WQS (IDAPA 58.01.02.250) apply to all surface waters with aquatic life use designations (and all undesignated surface waters default to an

aquatic life use). Section 250 states that Hydrogen Ion Concentration (pH) values must be within the range of 6.5-9.0 standard units at all times. Surface waters in Idaho are not to vary from this narrative criterion due to human activity. Therefore, the Draft DWGP sets a **pH limit not less than 6.5 and not more than 9.0 standard units.**

4. Trihalomethanes

There are no applicable technology-based effluent guidelines for trihalomethanes in discharges from water treatment plants. The State of Idaho has established the following applicable water quality criteria for protection of human health for each of the four common trihalomethanes.

Table A- 1 Trihalomethanes Human Health Criteria		
Human Health Criteria (IDAPA 58.01.02.210)		
Trihalomethane	Consumption of Water and Organisms – µg/l	Consumption of Water Only – µg/l
Chloroform	5.7	470
Chlorodibromomethane	0.41	34
Dichlorobromomethane	0.27	22
Bromoform	4.3	360

Although chlorine is commonly used for disinfection in water treatment plants, and literature suggests that trihalomethanes (THMs) can be elevated in water treatment plant residuals, reported levels are widely variable, and there are limited actual data available for a determination of reasonable potential for plants in Idaho. Therefore, the permit does not include effluent limitations for THMs, but does require monitoring. This information will be used to conduct reasonable potential analysis for THMs during development of the next permit.

5. Turbidity

There are no applicable technology-based effluent guidelines for turbidity in discharges from water treatment plants. At IDAPA 58.01.02.252, however, IDEQ has established water quality criteria for turbidity for waters designated for domestic water supply, that prohibits increases of 5 NTUs or more in receiving waters that have background turbidity of 50 NTUs or less, and increases of 10 percent above background (not to exceed 25 NTUs) are prohibited, when background turbidity is greater than 50 NTUs.

EPA has determined that limitations applied to TSS in discharges from WTPs will also control, to a great extent, the levels of turbidity in these discharges. In addition, because no data is available describing turbidity levels in discharges from the WTPs for a determination of reasonable potential, the draft permit does not include effluent limitations for turbidity, but does require monitoring. This information will be used to conduct reasonable potential analysis for turbidity during development of the next permit.

6. Aluminum

There are no applicable technology-based guidelines or State water quality criteria for aluminum. To evaluate the need for effluent limitations for aluminum, EPA has considered the EPA National Recommended Water Quality Criteria, 2002 (EPA-822-R-02-047), which recommends maximum concentrations of 87 µg/l and 750 µg/l as acute and chronic concentrations for the protection of freshwater aquatic life. IDEQ has also established a narrative water quality criterion for toxic substances, which states that surface waters of the State must be free of toxic substances in concentrations that impair designated beneficial uses.

Although a review of the literature regarding water treatment plant residuals suggests that aluminum concentrations in water treatment plant residuals can be elevated, particularly when aluminum salts are used to enhance coagulation, there is limited data to determine reasonable potential for plants in Idaho. Therefore, the draft permit does not include effluent limitations for aluminum, but does require monitoring. This monitoring is limited to those facilities which use alum in the treatment process. This information will be used to conduct reasonable potential analysis for aluminum during development of the next permit.

7. Metals

There are no applicable technology-based limits for metals. IDEQ, however, has established applicable water quality criteria. In addition, IDEQ has established a narrative water quality criterion for toxic substances, which states that surface waters of the State must be free of toxic substances in concentrations that impair designated beneficial uses.

A review of the literature regarding water treatment plant residuals suggests that metals may be present in discharges from drinking water treatment plants. In developing limitations and conditions for the permit, however, EPA had limited data available to determine if these pollutants may cause or contribute to a water quality standard violation. Therefore, the draft permit requires effluent monitoring for metals. In addition, monitoring for hardness in the discharge is also required pursuant to Idaho WQS to determine the toxicity of metals. The list of metal analysis is based partially from the National Toxics Rule at 40 CFR § 131.36. The parameters that are required to be monitored are: antimony, arsenic, beryllium, cadmium, total chromium, copper, lead, nickel, selenium, silver, thallium, and zinc. These data will be used to determine if additional limits are needed for the effluent discharge for the next permit.

Appendix C: Reasonable Potential Analysis and Water Quality-Based Effluent Limit Calculations

This appendix explains the process the EPA has used to conduct the reasonable potential analysis (RPA) and develop water quality-based effluent limitations (WQBELs). The permit includes WQBELs for total residual chlorine.

Reasonable Potential Analysis

The EPA uses the process described in the *Technical Support Document for Water Quality-based Toxics Control* (EPA, 1991) to determine reasonable potential. To determine if there is reasonable potential for the discharge to cause or contribute to an exceedance of water quality criteria for a given pollutant, the EPA compares the maximum projected receiving water concentration to the water quality criteria for that pollutant. If the projected receiving water concentration exceeds the criteria, there is reasonable potential, and a water quality-based effluent limit must be included in the permit. The following section discusses how the maximum projected receiving water concentration is determined.

Mass Balance

For discharges to flowing water bodies, the maximum projected receiving water concentration is determined using the following mass balance equation:

$$C_d Q_d = C_e Q_e + C_u Q_u \quad \text{Equation 1}$$

where,

- C_d = Receiving water concentration downstream of the effluent discharge (that is, the concentration at the edge of the mixing zone)
- C_e = Maximum projected effluent concentration
- C_u = 95th percentile measured receiving water upstream concentration
- Q_d = Receiving water flow rate downstream of the effluent discharge = $Q_e + Q_u$
- Q_e = Effluent flow rate (set equal to the design flow of the WWTP)
- Q_u = Receiving water low flow rate upstream of the discharge (1Q10, 7Q10 or 30B3)

When the mass balance equation is solved for C_d , it becomes:

$$C_d = \frac{C_e \times Q_e + C_u \times Q_u}{Q_e + Q_u} \quad \text{Equation 2}$$

The above form of the equation is based on the assumption that the discharge is rapidly and completely mixed with 100% of the receiving stream.

If a mixing zone is authorized and the mixing zone is based on less than complete mixing with the receiving water, the equation becomes:

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

Where:

% MZ = the percentage of the receiving water flow available for mixing.

If a mixing zone is not allowed, dilution is not considered when projecting the receiving water concentration and,

$$C_d = C_e \quad \text{Equation 4}$$

A dilution factor (D) can be introduced to describe the allowable mixing. Where the dilution factor is expressed as:

$$D = \frac{Q_e + Q_u \times \%MZ}{Q_e} \quad \text{Equation 5}$$

After the dilution factor simplification, the mass balance equation becomes:

$$C_d = \frac{C_e - C_u}{D} + C_u \quad \text{Equation 6}$$

If the criterion is expressed as dissolved metal, the effluent concentrations are measured in total recoverable metal and must be converted to dissolved metal as follows:

$$C_d = \frac{CF \times C_e - C_u}{D} + C_u \quad \text{Equation 7}$$

Where C_e is expressed as total recoverable metal, C_u and C_d are expressed as dissolved metal, and CF is a conversion factor used to convert between dissolved and total recoverable metal.

The above equations for C_d are the forms of the mass balance equation which were used to determine reasonable potential and calculate wasteload allocations.

Maximum Projected Effluent Concentration

When determining the projected receiving water concentration downstream of the effluent discharge, the EPA's Technical Support Document for Water Quality-based Toxics Controls (TSD, 1991) recommends using the maximum projected effluent concentration (C_e) in the mass balance calculation (see equation 3, page C-5). To determine the maximum projected effluent concentration (C_e) the EPA has developed a statistical approach to better characterize the effects of effluent variability. The approach combines knowledge of effluent variability as estimated by a coefficient of variation (CV) with the uncertainty due to a limited number of data to project an estimated maximum concentration for the effluent. Once the CV for each pollutant parameter has been calculated, the reasonable potential multiplier (RPM) used to derive the maximum projected effluent concentration (C_e) can be calculated using the following equations:

First, the percentile represented by the highest reported concentration is calculated.

$$p_n = (1 - \text{confidence level})^{1/n} \quad \text{Equation 8}$$

where,

- p_n = the percentile represented by the highest reported concentration
- n = the number of samples
- confidence level = 99% = 0.99

and

$$RPM = \frac{C_{99}}{C_{P_n}} = \frac{e^{Z_{99} \times \sigma - 0.5 \times \sigma^2}}{e^{Z_{P_n} \times \sigma - 0.5 \times \sigma^2}} \quad \text{Equation 9}$$

Where,

- σ^2 = $\ln(CV^2 + 1)$
- Z_{99} = 2.326 (z-score for the 99th percentile)
- Z_{P_n} = z-score for the P_n percentile (inverse of the normal cumulative distribution function at a given percentile)
- CV = coefficient of variation (standard deviation \div mean)

The maximum projected effluent concentration is determined by simply multiplying the maximum reported effluent concentration by the RPM:

$$C_e = (RPM)(MRC) \quad \text{Equation 10}$$

where MRC = Maximum Reported Concentration

Maximum Projected Effluent Concentration at the Edge of the Mixing Zone

Once the maximum projected effluent concentration is calculated, the maximum projected effluent concentration at the edge of the acute and chronic mixing zones is calculated using the mass balance equations presented previously.

Results of Reasonable Potential Calculations

It was determined that total residual chlorine has a reasonable potential to cause or contribute to an exceedance of water quality criteria. Since the general permit can be applicable to facilities throughout Idaho, the RPA and WQBELs were developed assuming no available dilution.

WQBEL Calculations

The following calculations demonstrate how the water quality-based effluent limits (WQBELs) in the draft permit were calculated. The draft permit includes WQBELs for total residual chlorine. The following discussion presents the general equations used to calculate the water quality-based effluent limits.

Calculate the Wasteload Allocations (WLAs)

Wasteload allocations (WLAs) are calculated using the same mass balance equations used to calculate the concentration of the pollutant at the edge of the mixing zone in the reasonable potential analysis (Equations 3 and 6). To calculate the wasteload allocations, C_d is set equal to the acute or chronic criterion and the equation is solved for C_e . The calculated C_e is the acute or chronic WLA. Equation 11 is rearranged to solve for the WLA, becoming:

$$C_e = WLA = D \times (C_d - C_u) + C_u \quad \text{Equation 11}$$

Idaho’s water quality criteria for some metals are expressed as the dissolved fraction, but the Federal regulation at 40 CFR §122.45(c) requires that effluent limits be expressed as total recoverable metal. Therefore, the EPA must calculate a wasteload allocation in total recoverable metal that will be protective of the dissolved criterion. This is accomplished by dividing the WLA expressed as dissolved by the criteria translator, as shown in Equation 7. The criteria translator (CT) is equal to the conversion factor, because site-specific translators are not available for this discharge, leading to the following equation:

$$C_e = WLA = \frac{D \times (C_d - C_u) + C_u}{CT} \quad \text{Equation 12}$$

The next step is to compute the “long term average” concentrations which will be protective of the WLAs. This is done using the following equations from the EPA’s *Technical Support Document for Water Quality-based Toxics Control* (TSD):

$$LTA_a = WLA_a \times e^{(0.5\sigma^2 - z\sigma)} \quad \text{Equation 13}$$

$$LTA_c = WLA_c \times e^{(0.5\sigma_4^2 - z\sigma_4)} \quad \text{Equation 14}$$

where,

$$\begin{aligned} \sigma^2 &= \ln(CV^2 + 1) \\ Z_{99} &= 2.326 \text{ (z-score for the 99}^{\text{th}} \text{ percentile probability basis)} \\ CV &= \text{coefficient of variation (standard deviation } \div \text{ mean)} \\ \sigma_n^2 &= \ln(CV^2/4 + 1) \end{aligned}$$

The LTAs are compared and the more stringent is used to develop the daily maximum and monthly average permit limits as shown below.

Derive the maximum daily and average monthly effluent limits

Using the TSD equations, the MDL and AML effluent limits are calculated as follows:

$$MDL = LTA \times e^{(z_m \sigma - 0.5\sigma^2)} \quad \text{Equation 15}$$

$$AML = LTA \times e^{(z_a \sigma_n - 0.5\sigma_n^2)} \quad \text{Equation 16}$$

where σ , and σ^2 are defined as they are for the LTA equations above, and,

$$\begin{aligned} \sigma_n^2 &= \ln(CV^2/n + 1) \\ z_a &= 1.645 \text{ (z-score for the 95}^{\text{th}} \text{ percentile probability basis)} \\ z_m &= 2.326 \text{ (z-score for the 99}^{\text{th}} \text{ percentile probability basis)} \\ N &= \text{number of sampling events required per month. With the exception of ammonia, if the AML is based on the } LTA_c, \text{ i.e., } LTA_{\text{minimum}} = LTA_c, \text{ the value of “n” should be set at a minimum of 4.} \end{aligned}$$

Below are the results of the reasonable potential analysis and WQBEL calculations for total residual chlorine for the two scenarios: 1) assuming no mixing zone is authorized and 2) assuming the discharge has sufficient dilution to discharge at the TBELs and not have reasonable potential to exceed the State water quality standards for total residual chlorine.

The table below is a reasonable potential calculation and effluent limits for two scenarios: when no mixing zone is granted, there is reasonable potential to exceed IDEQ’s WQS, and the appropriate limitations; and, when a mixing zone is granted, the required dilution factors that are necessary so that there is no reasonable potential to exceed IDEQ’s WQS.

For the “No Mixing Zone” scenario, EPA ran the simulation to set the Acute and Chronic Dilution Factors at 1 to simulate a situation when there is no dilution. To simulate the “Dilution Available” scenario where a mixing zone can be allowed, EPA performed a programmed simulation by trial and error, until there is no longer reasonable potential to exceed water quality standards. For both “No Mixing Zone” and “Dilution Available” scenarios, EPA used the following inputs:

- (1) Number of samples in Data Set (n) = 260. The rationale for this data input is derived from the total number samples required by the permit for weekly monitoring over a 5-year permit term (i.e., 52 weekly samples/year x 5 years = 260 samples).
- (2) Effluent Concentration = 500 µg/l. The rationale for this data input is to simulate whether there is reasonable potential to exceed Water Quality Standards when the permittee is discharging the allowed maximum daily limit concentration of 0.5 mg/l (i.e., equivalent units to 500 µg/l).

Reasonable Potential Analysis (RPA) and Water Quality Effluent Limit (WQBEL) Calculations

Facility Name Water Treatment Plant General Permit

Pollutants of Concern		No MZ	Dilution Available
		CHLORINE (Total Residual)	CHLORINE (Total Residual)
Effluent Data	Number of Samples in Data Set (n)	260	260
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)	0.6	0.6
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C _e)	500	500
Dilution Factors	Aquatic Life - Acute	1.000	30.000
	Aquatic Life - Chronic	7Q10 or 4B3	52.000
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	19
	Aquatic Life Criteria, µg/L	Chronic	11

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2 = \ln(CV^2 + 1)$	0.555	0.555
P _n	$= (1 - \text{confidence level})^{1/n}$, where confidence level = 99%	0.982	0.982
Multiplier (TSD p. 57)	$= \exp(z\sigma - 0.5\sigma^2) / \exp[\text{normsinv}(P_n) - 0.5\sigma^2]$, where 99%	1.1	1.1
Statistically projected critical discharge concentration (C _e)		564.65	564.65
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone (note: for metals, concentration as dissolved using conversion factor as translator)	Acute	564.65	18.82
	Chronic	564.65	10.86
Reasonable Potential to exceed Aquatic Life Criteria		YES	NO

Aquatic Life Effluent Limit Calculations

Number of Compliance Samples Expected per month (n)			
n used to calculate AML (if chronic is limiting then use min=4 or for ammonia min=30)		4	--
LTA Coeff. Var. (CV), decimal (Use CV of data set or default = 0.6)		0.600	--
Permit Limit Coeff. Var. (CV), decimal (Use CV from data set or default = 0.6)		0.600	--
Acute WLA, ug/L	C _d = (Acute Criteria x MZ _a) - C _u x (MZ _a -1)	Acute	19.0
Chronic WLA, ug/L	C _d = (Chronic Criteria x MZ _c) - C _u x (MZ _c -1)	Chronic	11.0
Long Term Ave (LTA), ug/L (99 th % occurrence prob.)	WLA _c x exp(0.5σ ² -zσ), Acute	99%	6.1
	WLA _a x exp(0.5σ ² -zσ); ammonia n=30, Chronic	99%	5.8
Limiting LTA, ug/L	used as basis for limits calculation		5.8
Applicable Metals Criteria Translator (metals limits as total recoverable)			--
Average Monthly Limit (AML), ug/L, where % occurrence prob =	95%	9	--
Maximum Daily Limit (MDL), ug/L, where % occurrence prob =	99%	18	--
Average Monthly Limit (AML), mg/L		0.009	--
Maximum Daily Limit (MDL), mg/L		0.018	--
Average Monthly Limit (AML), lb/day		--	--
Maximum Daily Limit (MDL), lb/day		--	--

References: Idaho Water Quality Standards <http://adminrules.idaho.gov/rules/current/58/0102.pdf>
 Technical Support Document for Water Quality-based Toxics Control, US EPA, March 1991, EPA/505/2-90-001

Filename: C:\Users\SPOULSOM\Documents\[Idaho TSD Workbook DWGP.xlsm]RP and Limits 12/8/2014

Dilution Factor Calculation

The Idaho *Water Quality Standards* at IDAPA 58.01.02.060 allow for the authorization of mixing zones of the receiving water to be used for dilution for aquatic life criteria. The flows used to evaluate compliance with the criteria are:

- The 1 day, 10 year low flow (1Q10). This flow is used to protect aquatic life from acute effects. It represents the lowest daily flow that is expected to occur once in 10 years.
- The 7 day, 10 year low flow (7Q10). This flow is used to protect aquatic life from chronic effects. It is the lowest 7 day average flow expected to occur once in 10 years.

In accordance with state water quality standards, only the IDEQ may authorize mixing zones.

The following dilution factors were calculated for the existing permittees:

System name	NPDES Permit Number	Calculated Dilution Factors	
		Acute	Chronic
City of Bonners Ferry WTP	ID-0020451	5,365	5,537
City of Sandpoint Sand Creek WTP	ID-0024350	1	1
Laclede Water District WTP	ID-0027944	14,578	16,343
City of Lewiston WTP	ID-0026531	200.4	219.9
City of Pierce WTP	ID-0020893	1	1
City of Weiser WTP	ID-0001155	5,172	5,370
Wilderness Ranch WTP	ID-0028312	200.0	219.5

B. TMDL WLAs for Weiser WTP

Background

A TMDL for the Snake River – Hells Canyon watershed was approved by EPA in September, 2004. The TMDL may be downloaded from the following Internet address:

http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/snake_river_hells_canyon/snake_river_hells_canyon.cfm

The TMDL provided the following WLAs for the Weiser WTP:

Weiser WTP WLA from Snake River – Hells Canyon TMDL
<u>Total Phosphorus</u> Concentration = 3.5 mg/l WLA = 5.5 kg/day
<u>TSS</u> WLA = 50 mg/l monthly average

Phosphorus

The NPDES regulations at 40 CFR 122.45(d) require that all permit limits be expressed, unless impracticable, as both average monthly limits (AMLs) and maximum daily limits (MDLs) for all discharges other than publicly owned treatment works (POTWs). The objective in setting effluent limits is to establish limits that will result in the effluent meeting the wasteload allocation (WLA) under normal operating

conditions virtually all the time. While not possible to guarantee, through permit limits, that a WLA will never be exceeded, it is possible to use procedures which can account for extreme values. Permit limits can be established that will have low statistical probability of exceeding the WLA and will achieve the desired loading. The statistical procedures used by EPA to determine effluent limitations are described in the Technical Support Document for Water Quality-based Toxics Control (EPA March 1991). EPA followed the statistical procedures of the *TSD* in developing the AML and MDL for phosphorus based on the TMDL WLA.

Permit limits were calculated by setting the maximum daily limit (MDL) equal to the WLA and calculating the average monthly limits (AML) from the following relationship from the *TSD*:

$$\frac{\text{MDL}}{\text{AML}} = \frac{\exp(z_m\sigma - 0.5\sigma^2)}{\exp(z_a\sigma_n - 0.5\sigma_n^2)}$$

Where:

CV = Coefficient of variation = 0.6

$$\sigma^2 = \ln(\text{CV}^2 + 1) = 0.307$$

$$\sigma_n^2 = \ln(\text{CV}^2/n + 1) = 0.0862$$

n = number of sampling events per month (minimum of 4 samples assumed if sample frequency is less than 4 per month)

$z_m = 2.326$ for 99th percentile probability basis

$z_a = 1.645$ for 95th percentile probability basis

This yields an MDL to AML ratio of 2.01.

Therefore:

$$\text{MDL} = 5.5 \text{ kg/day (12 lbs/day)}$$

$$\text{AML} = 5.5 \div 2 = 2.75 \text{ kg/day (6.1 lbs/day)}$$

In terms of concentration:

$$\text{MDL} = 3.5 \text{ mg/l}$$

$$\text{AML} = 3.5 \text{ mg/l} \div 2 = 1.75 \text{ mg/l}$$

It is unlikely that the WTP will cause any impact on phosphorus loading to the Snake River, because the facility does not add phosphorus as part of the treatment process. The only phosphorus being discharged in the wastestream, is from the source water (i.e. the Weiser River and Snake River). Therefore monitoring for phosphorus is limited to once per year. The sample must be taken during the month of July, since the TMDL is seasonal (May through September).

TSS

The Snake River – Hells Canyon TMDL includes a WLA for TSS for the Weiser WTP of 50 mg/l (monthly average). Because this WLA is less stringent than the technology-based limit established for the permits, the technology-based limit applies.

Appendix D. EPA and IDEQ OFFICE CONTACT INFORMATION

U.S. Environmental Protection Agency Region 10
1200 Sixth Avenue, Suite 900 (OWW-191)
Seattle, Washington 98101
206/553-0523 or 1-800-424-4EPA (within Alaska, Idaho, Oregon and Washington)

Idaho Department of Environmental Quality
State Office, ATTN: 401 Program
1410 North Hilton Street
Boise, Idaho 83706
208/373-0502

Idaho Department of Environmental Quality
Boise Regional Office
1445 North Orchard Street
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Idaho Department of Environmental Quality
Twin Falls Regional Office
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Idaho Department of Environmental Quality
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Idaho Department of Environmental Quality
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Idaho Department of Environmental Quality
Idaho Falls Regional Office
900 N. Skyline Drive
Idaho Falls, Idaho 83402
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APPENDIX E. IDEQ Preliminary CWA Section 401 Certification



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippetts, Director

April 21, 2016

Mr. Michael J. Lidgard, Manager
NPDES Permit Unit
EPA Region 10
1200 Sixth Avenue, Suite 900
Mail Code: OWW-191
Seattle, Washington 98101-3140

Subject: REVISED DRAFT §401 Water Quality Certification for the NPDES Draft
General Permit for Drinking Water Treatment Facilities (IDG380000)

Dear Mr. Lidgard:

The Idaho Department of Environmental Quality (DEQ) recently learned of a revision to the Draft U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System General Permit for Drinking Water Treatment Facilities (IDG380000). The minor revision replaced the alkalinity parameter with hardness.

On March 4, 2016 DEQ sent a Draft 401 Certification of IDG380000 that included a table listing alkalinity as a parameter to be monitored in mg/L as CaCO₃. DEQ requests that the attached revised Draft 401 certification that states hardness as the parameter to be monitored replace the previously submitted 401 certification dated March 4, 2016.

Questions or comments regarding this certification should be directed to Nicole Deinarowicz at 208-373-0591 or via email: nicole.deinarowicz@deq.idaho.gov.

Sincerely,

A handwritten signature in blue ink that reads "Barry N. Burnell".

Barry N. Burnell
Water Quality Division Administrator

BNB:SB:tg

Enclosed: REVISED Draft 401 Certification for Drinking Water Treatment Facilities
General Permit

c: Susan Poulosom – EPA, Region 10
Kai Shum – EPA, Region 10
Jerri Henry, DEQ, Drinking Water Program Manager
DEQ Regional Administrators



Idaho Department of Environmental Quality Draft §401 Water Quality Certification

April 21, 2016

NPDES Permit Number(s): Drinking Water Treatment Facilities General Permit (DWGP) IDG380000

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. 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 (NPDES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced 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, 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, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- **Tier 1 Protection.** The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- **Tier 2 Protection.** The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

- **Tier 3 Protection.** The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body 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

Drinking Water Treatment Facilities (DWTs) discharge the following pollutants of concern: total suspended solids (TSS), total residual chlorine (TRC), aluminum, metals (antimony, beryllium, cadmium, total chromium, copper, lead, nickel, selenium, silver, thallium, and zinc), temperature, total trihalomethanes (TTHMs), and turbidity. Effluent limits have been developed for TSS, TRC, pH and TP where a TMDL has determined a Waste Load Allocation (WTA) for the DWTF. No effluent limits are proposed for aluminum, metals, temperature, total TTHMs, and turbidity. Existing activities that propose no expansion or existing discharges that propose no change in their discharge upon permit renewal will not cause degradation of water quality.

Receiving Water Body Level of Protection

The Drinking Water Treatment Facilities General Permit (DWGP) provides coverage to facilities throughout the entire state of Idaho including seven previously permitted facilities. The seven facilities are:

- 1) **City of Sandpoint, Sand Creek Water Treatment Plant (WTP)** discharges to Little Sand Creek within the Pend Oreille Lake Subbasin assessment unit (AU) ID17010214PN053_02 (Little Sand Creek – Headwaters to Sand Creek). Little Sand Creek is undesignated. DEQ presumes undesignated waters in the state, that are not man-made waters, will support cold water aquatic life and primary or secondary contact recreation beneficial uses; therefore, undesignated waters are protected for these uses (IDAPA 58.01.02.101.01.a). In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use is not fully supported. The cause of impairment is sediment. The contact recreation beneficial use is fully supported. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use and Tier 2 protection (IDAPA 58.01.02.051.02) in addition to Tier 1 for the contact recreation use (IDAPA 58.01.02.052.05.c).

- 2) **City of Bonners Ferry WTP** discharges to the Kootenai River within the Lower Kootenai Subbasin assessment unit (AU) ID17010104PN029_08 (Kootenai River -

Moyie River to Deep Creek). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use is not fully supported. The cause of impairment is temperature. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use. The contact recreation beneficial use is unassessed. DEQ must provide an appropriate level of protection for the contact recreation use using information available at this time (IDAPA 58.01.02.052.05.c).

- 3) **Laclede Water District WTP** discharges to the Pend Oreille River within the Pend Oreille Lake Subbasin assessment unit (AU) ID17010214PN002_08 (Pend Oreille River - Pend Oreille Lake to Priest River). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use is not fully supported. Causes of impairment include dissolved gas supersaturation and temperature. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use. The contact recreation beneficial use is unassessed. DEQ must provide an appropriate level of protection for the contact recreation use using information available at this time (IDAPA 58.01.02.052.05.c).

- 4) **City of Lewiston WTP** discharges to the Clearwater River within the Clearwater Subbasin assessment unit (AU) ID17060306CL001_07 (Lower Granite Dam pool). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is fully supporting its assessed uses (IDAPA 58.01.02.052.05.a). As such, DEQ will provide Tier 2 protection in addition to Tier 1 for this water body (IDAPA 58.01.02.051.02; 58.01.02.051.01).

- 5) **City of Pierce WTP** discharges to Canal Gulch Creek within the Clearwater Subbasin assessment unit (AU) ID17060306CL039_02 (Shanghai Creek and tributaries). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, and primary contact recreation. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is fully supporting its assessed uses (IDAPA 58.01.02.052.05.a). As such, DEQ will provide Tier 2 protection in addition to Tier 1 for this water body (IDAPA 58.01.02.051.02; 58.01.02.051.01).

- 6) **City of Weiser WTP** discharges to the Upper Brownlee Reservoir within the Brownlee Reservoir Subbasin assessment unit (AU) ID17050201SW004_08 (Upper Brownlee Reservoir -Weiser to Porters Flat). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use is not fully supported. Causes of impairment include dissolved oxygen, TP, sedimentation/siltation, pesticides (DDD, DDE, DDT, and Dieldrin) and temperature. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use. The contact recreation beneficial use is unassessed. DEQ must provide an appropriate level of protection for the contact recreation use using information available at this time (IDAPA 58.01.02.052.05.c).

- 7) **Wilderness Ranch WTP** discharges to Mores Creek within the Boise - Mores Subbasin assessment unit (AU) ID17050112SW009_06 (Mores Creek - 6th order - Grimes Creek to mouth). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

According to DEQ's 2012 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use is not fully supported. Causes of impairment include sedimentation/siltation and temperature. The contact recreation beneficial use is fully supported. As such, DEQ will provide Tier 1 protection (IDAPA 58.01.02.051.01) for the aquatic life use and Tier 2 protection (IDAPA 58.01.02.051.02) in addition to Tier 1 for the contact recreation use (IDAPA 58.01.02.052.05.c).

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 demonstration 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 narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of designated beneficial uses.

The effluent limitations, including best professional judgment, technology-based effluent limits, and monitoring requirements contained in the DWGP, coupled with the requirements of this certification, will ensure compliance with the narrative and numeric criteria in the Idaho WQS. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in accordance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

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 those pollutants causing impairment. 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 are consistent with wasteload allocations in the approved TMDL. Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

New dischargers to impaired waters are not eligible for coverage under the DWGP unless the permit applicant provides data sufficient to demonstrate that the discharge of the pollutant for which the water body is impaired will meet in-stream water quality criteria for the pollutant at the point of discharge to the water body. In this instance, the applicant must receive written confirmation from the EPA that the discharge will not contribute to the existing impairment.

New facilities may be included in Appendix C of the General Permit after EPA and DEQ determine the appropriateness and after successful public participation. New facilities identified in Appendix C of the General Permit may be subject to additional conditions and/or limitations due to TMDLs in receiving waters.

The DWGP requires that existing dischargers to impaired waters also comply with WQS and applicable TMDLs. If existing dischargers to impaired waters plan to expand their operation, or increase their discharge, they must demonstrate that the discharge will still comply with water quality criteria.

Discharges to waters with an approved TMDL

Three facilities' receiving water bodies currently have an EPA approved TMDL.

City of Sandpoint, Little Sand Creek WTP: The EPA-approved *Pend Oreille Tributaries Sediment TMDL* (EPA Approved, January 2008) establishes wasteload allocations for sediment. These wasteload allocations are designed to ensure the Pend Oreille River Subbasin will achieve the water quality necessary to support its existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. However, the pollutant source inventory did not identify any point sources of sediment within the watersheds of concern (TMDL, page 6 of Executive Summary); Little Sand Creek was not listed as impaired by sediment (TMDL, page 8, Table 1-1); and, permitted point sources were not considered sources of sediment loading in the Pend Oreille River Subbasin (TMDL, page 57).

Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Pend Oreille River Subbasin in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

City of Weiser WTP: The EPA-approved *Snake River - Hells Canyon TMDL* (EPA Approved, January 2007) establishes wasteload allocations for sediment, temperature, and phosphorous (i.e., relevant pollutants of concern). These wasteload allocations are designed to ensure the Upper Brownlee Reservoir will achieve the water quality necessary to support the existing and designated aquatic life beneficial use and comply with the applicable numeric and narrative criteria. The WTP was identified as contributing a negligible amount of sediment (TSS)(TMDL, page 342, Table 3.5.3 a.); was not identified as a contributor of heat load; and, a total

phosphorous wasteload allocation was established at a concentration of 3.5 mg/L and 5.5 kg/day (TMDL, page 446, Table 4.0.8.). The permit limits are consistent with this wasteload allocation.

In sum, the effluent limitations and associated requirements contained in the DWGP are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *Snake River - Hells Canyon TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Upper Brownlee Reservoir in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Wilderness Ranch WTP: The EPA-approved *Boise-Mores Creek Watershed Subbasin Assessment and Total Maximum Daily Loads* (EPA Approved, February 2010) establishes wasteload allocations for sediment and temperature. These wasteload allocations are designed to ensure Mores Creek will achieve the water quality necessary to support its existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. The sediment load in Mores Creek is from mass wasting of hydraulically mined areas and stream bank erosion. The temperature load results from solar radiation and the TMDL sets a target of potential natural vegetation to reduce temperature loads. No NPDES facilities were identified as having a discharge of either sediment or temperature. A reserve for growth exists for sediment (TSS) and temperature from Wastewater Treatment Facilities. However, given the volume of effluent discharged and the size of the receiving water body, Wilderness Ranch WTP is an insignificant contributor of sediment and heat loading and therefore, there is no need to allocate a portion of the reserve for growth to this facility.

In sum, the effluent limitations and associated requirements contained in the DWGP are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *Boise-Mores Creek Watershed Subbasin TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Boise-Mores Subbasin in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Discharges to waters without an approved TMDL

Two facilities discharge to receiving water bodies in need of a TMDL for temperature, a relevant pollutant of concern: Bonners Ferry WTP and Laclede Water District WTP. Weekly temperature monitoring of the effluent is required of all facilities covered under the DWGP. This temperature data will be used to assess whether a discharge from WTPs contribute to the heat loading of a receiving water body and whether the subsequent permit establishes an effluent limit for temperature.

High-Quality Waters (Tier 2 Protection)

As indicated previously, water bodies that fully support their beneficial uses will be provided Tier 2 protection, in addition to Tier 1 protection. As such, the quality of these waters must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important economic or social development. Water bodies identified in the Integrated Report as not assessed will be provided an appropriate level of protection on a case-

by-case basis using information available at the time of a proposal for a new or reissued permit or license (IDAPA 58.01.02.052.05.b).

For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license. For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.06.a).

New Discharges to High-Quality Waters

A new discharge to a high-quality water body is only eligible for coverage under this general permit if the permit applicant establishes in the Notice of Intent (NOI) that the discharge is considered insignificant degradation per IDAPA 58.01.02.052.08.a. As stated in the DWGP, EPA believes that the permit requirements and conditions will generally be sufficient enough to provide Tier 2 protections. DEQ has included, as a condition of the certification, an explanation for how to establish that the discharge will not result in significant degradation. If a new discharge to a high-quality water will result in significant degradation, the discharger must provide an explanation acceptable to DEQ that the degradation is necessary to accommodate important economic or social development.

Expanding an Existing Discharges to High-Quality Waters

Existing dischargers who are expanding their operations and/or increasing their discharge must submit a "Planned Changes Report" to EPA. Similar to a new discharge, an increase in a discharge may result in degradation, if it contains pollutants relevant to the use(s) for which the water is considered high quality. Therefore, DEQ is requiring as a condition of the certification that an increase in an existing discharge to a high-quality water body only be allowed under the DWGP if the discharger can establish that the increase is determined to cause insignificant degradation per IDAPA 58.01.02.052.08.a.

In order to ensure that degradation will not occur, EPA shall work cooperatively with DEQ in reviewing "Planned Changes Reports". If DEQ determines the planned changes will result in significant degradation, the permittee will need to provide an explanation acceptable to DEQ that the degradation is necessary to accommodate important economic or social development.

Existing Dischargers to High-Quality Waters

The DWGP is as stringent as the existing individual permits for drinking water facilities discharging to high-quality waters. Therefore, existing activities or discharges currently covered by the existing individual permit should not cause degradation, as long as the activity or discharge is not expanding. As noted above, for a reissued permit, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the

activity or discharge as proposed in the reissued permit or license. DEQ's comparison of permit limits must take into account limits for all those pollutants relevant to the use for which the water is deemed to be high quality.

There are seven WTPs that are currently operating under an administrative extension of their individual permits. To determine whether degradation will occur for these existing dischargers, the limits for those pollutants relevant to the use for which the water is high quality in the existing individual permits must be compared to the limits for the same pollutants in the new general permit. Five of the seven WTPs discharge to waters that are high quality waters only for recreational uses. Of the pollutants of concern, only E-coli and TP are relevant to recreational uses. (The general permit requires monitoring for metals, some of which may have human health criteria applicable to recreational uses. But, at this time, there is insufficient information to determine whether metals relevant to recreational uses are discharged at a particular facility.) None of the WTPs discharge *E. coli*, and only one, City of Weiser, discharges TP.

The other two WTPs discharge to waters that are high quality for both recreational uses and aquatic life uses. Pollutants relevant to aquatic life uses include TSS, TRC, aluminum, metals, temperature, pH and turbidity, which are discharged by the two WTPs that discharge to waters that are high quality for aquatic life uses. What this means is that a Tier 2 analysis need only be done for the City of Weiser for TP to determine whether water quality relevant to the recreational use is degraded, and for the City of Lewiston and the City of Pierce for TSS, TRC, aluminum, metals, temperature, pH and turbidity, to determine whether water quality relevant to the aquatic life use is degraded. The information regarding each WTP is set out below.

City of Sandpoint, Sand Creek WTP: Little Sand Creek is considered high quality for contact recreation. As such, the water quality relevant to uses of Little Sand Creek must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to contact recreation uses of Little Sand Creek (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU because this permitted activity will not create impacts that could affect the contact recreation use.

City of Bonners Ferry WTP: The Kootenai River is presumed high quality for primary contact recreation. The water quality relevant to contact recreation uses of the Kootenai River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to contact recreation uses of the Kootenai River (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU because this permitted activity will not create impacts that could affect the contact recreation use.

Laclede Water District WTP: The Pend Oreille River is presumed high quality for primary contact recreation. As such, the water quality relevant to contact recreation uses of the Pend Oreille River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to contact recreation uses of the Pend Oreille River (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU because this permitted activity will not create impacts that could affect the contact recreation use.

City of Lewiston WTP: Lower Granite Dam pool is considered high quality for cold water aquatic life and primary contact recreation. As such, the water quality relevant to cold water aquatic life and contact recreation uses of the Lower Granite Dam pool must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to cold water aquatic life and contact recreation uses of the Lower Granite Dam pool (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU with respect to recreational uses because this permitted activity will not create impacts that could affect the contact recreation use.

The pollutants relevant to cold water aquatic life include the following: TSS, TRC, aluminum, metals, temperature, and turbidity. Effluent limits are set in the proposed and existing permit for all these pollutants except aluminum, metals, temperature, and turbidity. The proposed permit limits for the pollutants of concern that have limits are the same as those in the current permit. Therefore, no adverse change in water quality and no degradation will result from the discharge of these pollutants.

City of Pierce WTP: Canal Gulch Creek is considered high quality for cold water aquatic life and primary contact recreation. As such, the water quality relevant to aquatic life uses and contact recreation use of Canal Gulch Creek must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to aquatic life uses and contact recreation use of Canal Gulch Creek (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU with respect to recreational uses because this permitted activity will not create impacts that could affect the contact recreation use.

The pollutants relevant to cold water aquatic life and salmonid spawning include the following: TSS, TRC, aluminum, metals, temperature, and turbidity. Effluent limits are set in the proposed and existing permit for all these pollutants except aluminum, metals, temperature, and turbidity. The proposed permit limits for the pollutants of concern that have limits are the same as those in

the current permit. Therefore, no adverse change in water quality and no degradation will result from the discharge of these pollutants.

City of Weiser WTP: The Upper Brownlee Reservoir is presumed high quality for primary contact recreation. As such, the water quality relevant to contact recreation uses of the Upper Brownlee Reservoir must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to contact recreation uses of the Upper Brownlee Reservoir (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU because this permitted activity will not create impacts that could affect the contact recreation use.

Wilderness Ranch WTP: Mores Creek is considered high quality for primary contact recreation. As such, the water quality relevant to contact recreation uses of Mores Creek must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to contact recreation uses of Mores Creek (IDAPA 58.01.02.052.05). The pollutant relevant to contact recreation is *E. coli* which is not a pollutant being discharged by the WTP. Therefore, it is unnecessary for DEQ to conduct a Tier 2 review for this AU because this permitted activity will not create impacts that could affect the contact recreation use.

For a reissued permit, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license (IDAPA 58.01.02.052.06.a). For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.06.a).

Pollutants with Limits in the Current and Proposed Permit

For pollutants that are currently limited and will have limits under the reissued permit, the current discharge quality is based on the limits in the current permit or license (IDAPA 58.01.02.052.06.a.i), and the future discharge quality is based on the proposed permit limits (IDAPA 58.01.02.052.06.a.ii). For the DWGP, this means determining the permit's effect on water quality based upon the limits for TSS, TRC, pH and TP. A DWTF will have a TP limit where a TMDL has determined a waste load allocation (WLA) for the DWTF in the current and proposed permits. Table 1 provides a summary of the current permit limits and the proposed or reissued permit limits.

Table 1. Comparison of current and proposed permit limits for pollutants of concern relevant to uses receiving Tier 2 protection.

Pollutant	Units	Current Permit			Proposed Permit			Change ^a
		Average Monthly Limit	Average Weekly Limit	Single Sample Limit	Average Monthly Limit	Average Weekly Limit	Single Sample Limit	
Pollutants with limits in both the current and proposed permit								
Total Suspended Solids	mg/L	30	45	—	30	45	—	NC
pH	standard units	6.5–9.0 all times			6.5–9.0 all times			NC
Total Residual Chlorine ^b	mg/L	0.3	0.5	—	0.3	0.5	—	NC
	mg/L	.01	.02	—	.01	.02	—	NC ^c
Total Phosphorus ^d	mg/L (lbs/day)	1.75 (6.1)	3.5 (12)	—	1.75 (6.1)	3.5 (12)	—	NC
Pollutants with no limits in both the current and proposed permit								
Flow	gallons/day	—	—	Report	—	—	Report	NC
Hardness ^e	mg/L as CaCO ₃	—	—	Report	—	—	Report	NC
Aluminum	µg/L	—	—	Report	—	—	Report	NC
Metals	µg/L	—	—	Report	—	—	Report	NC
Temperature	°C	—	—	Report	—	—	Report	NC
Total Trihalomethanes	µg/L	—	—	Report	—	—	Report	NC
Turbidity	NTUs	—	—	Report	—	—	Report	NC

^a NC = no change, I = increase, D = decrease.

^b Total Residual Chlorine limits are based on whether a receiving water body has the capacity to assimilate the pollutant. Where no assimilative capacity exists, the more stringent water quality based effluent limit is required.

^c Laclede Water District WTF's TRC limit is being modified to reflect the assimilative capacity of the Pend Oreille River.

^d City of Weiser - Based on Idaho's TMDL for the Snake River – Hells Canyon watershed was approved by EPA in September, 2004.

^e Hardness shall be sampled at the same time metals samples are collected.

As noted, there are only three facilities that discharge pollutants relevant to the uses for which the waters are high quality: City of Weiser, City of Lewiston and the City of Pierce. For these WTPs, the proposed permit limits for the pollutants of concern that have limits in Table 1 (TSS, TRC, pH and TP where a TMDL has determined a waste load allocation (WTA) for the DWTF) are the same as, or more stringent than, those in the current permit (“NC” in change column). Therefore, no adverse change in water quality and no degradation will result from the discharge of these pollutants.

Pollutants with No Limits

There are several pollutants of concern (i.e., turbidity, aluminum, metals and temperature) relevant to Tier 2 protection that currently are not limited and for which the proposed permit also contains no limit (Table 1). For such pollutants, a change in water quality is determined by reviewing whether changes in production, treatment, or operation that will increase the discharge of these pollutants are likely (IDAPA 58.01.02.052.06.a.ii).

The pollutants for which there are no limits are all pollutants relevant to aquatic life. The City of Lewiston and the City of Pierce WTPs discharge these pollutants to waters that are high quality for aquatic life. With respect to these pollutants, there is no reason to believe the pollutants will be discharged in quantities greater than those discharged under the current permit. This conclusion is based upon the fact that there have been no changes in the design flow, influent

quality, or treatment processes that would likely result in an increased discharge of these pollutants. The permit requires, however, monitoring for these parameters to gain a better understanding of whether there is a need for limits in the future to protect beneficial uses.

Because the proposed permit does not allow for any increased water quality impact from any of these pollutants, DEQ has concluded that the proposed permit should not cause a lowering of water quality for pollutants with no limit. As such, the proposed permit should maintain the existing high water quality in those water bodies identified as fully supporting its beneficial uses.

In sum, DEQ concludes that this DWGP complies with the Tier 2 provisions of Idaho's WQS (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06).

Protection of Outstanding Resource Waters (Tier 3 Protection)

The DWGP does not authorize discharges to outstanding resource waters; EPA is requiring applicants proposing to discharge to Tier 3 waters, to obtain an individual NPDES permit. Therefore, DEQ has determined that the proposed permit complies with Idaho's antidegradation provision concerning outstanding resource waters (IDAPA 58.01.02.051.03, 58.01.02.052.09).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Monitoring of Discharges to Impaired Waters

The proposed DWGP does not require monitoring on impaired waters where no pollutant has been identified as the cause of impairment. For water bodies included on the states §303(d) list (Category 5 of the Integrated Report), identified as "cause unknown", the permittee will be required to monitor for the pollutants listed in the cause comments section of the report (e.g., nutrients, metals, pesticides).

New or Expanding Discharges

New dischargers or existing dischargers wishing to expand their discharge to high-quality waters are only eligible for coverage under the DWGP if the discharger establishes, to the satisfaction of EPA and DEQ, that the new or expanded discharge will not result in an increase in the concentration of pollutants relevant to the use for which the water is considered high quality, or that the increase constitutes insignificant degradation as defined in the WQS (IDAPA 58.01.02.052.08.a).

A new discharger or an existing discharger wishing to expand must include an analysis regarding whether the new or expanded discharge will cause an increase in the pollutants relevant to the use for which the water is considered high quality, and if there is an increase, whether that increase constitutes insignificant degradation in the NOI, or in the planned changes report.

These NOIs and planned changes reports must be submitted to both EPA and DEQ. If DEQ determines the new discharge or planned changes of an existing discharger will result in significant degradation, the permittee will need to obtain DEQ's approval of an alternatives analysis (IDAPA 58.01.02.052.08.c), a socioeconomic justification (IDAPA 58.01.02.052.08.d)

and information regarding other source controls (IDAPA 58.01.02.052.08.b.) in order to obtain coverage under the permit.

Mixing Zones

Pursuant to IDAPA 58.01.02.060, DEQ authorizes mixing zones that utilize the following percentages of the critical flow volumes of each facility's receiving water body for TRC.

Facility	Receiving Water Body	% Mixing Zone
City of Bonners Ferry WTP	Kootenai River	1%
City of Lewiston WTP	Lower Granite Dam pool	6%
City of Weiser WTP	Upper Brownlee Reservoir	1%
Laclede Water District WTP	Pend Oreille River	1%
Wilderness Ranch WTP	Mores Creek	6%

Reporting of Discharges Containing Hazardous Materials or Petroleum Products

Any release that causes a sheen in the waters of the state or a spill of hazardous material that cannot be immediately controlled or contained must be reported by calling 911 and the appropriate DEQ Regional Office (Table 1).

All unauthorized releases of hazardous materials to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must:

- Make every reasonable effort to stop a continuing spill.
- Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
- Immediately notify the appropriate DEQ Regional Offices (Table 1) during normal working hours.
- If the spill occurs after normal working hours, and is immediately stopped and contained, notification must be made to the Idaho State Communications Center at 1-800-632-8000.
- If the released amount meets federal reporting criteria, notification must be made to the National Response Center at 1-800-424-8802.

Table 1. Release Reporting Phone and Fax Numbers

<i>Regional Office</i>	<i>Address</i>	<i>Phone and Fax Number</i>
Boise	1445 N. Orchard Rd., Boise, ID 83706	ph: (208) 373-0550 fx: (208) 373-0287 toll-free: (888) 800-3480
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene, ID 83814	ph: (208) 769-1422 fx: (208) 769-1404 toll-free: (877) 370-0017
Idaho Falls	900 N. Skyline, Suite B, Idaho Falls, ID 83402	ph: (208) 528-2650 fx: (208) 528-2695 toll-free: (800) 232-4635
Lewiston	1118 "F" St., Lewiston, ID 83501	ph: (208) 799-4370 fx: (208) 799-3451 toll-free: (877) 541-3304
Pocatello	444 Hospital Way #300, Pocatello, ID 83201	ph: (208) 236-6160 fx: (208) 236-6168 toll-free: (888) 655-6160
Twin Falls	650 Addison Ave. W, Suite 110, Twin Falls, ID 83301	ph: (208) 736-2190 fx: (208) 736-2194 toll-free: (800) 270-1663
State Office	1410 N. Hilton Rd., Boise, ID 83706	ph: (208) 373-0502 fx: (208) 373-0576

Other Reporting

Copies of the following information must be sent to DEQ:

- Notices of Intent and Termination (NOIs and NOTs)
- Exceedance Reports - must be sent to DEQ within 30 days of the facility receiving the analytical results
- Planned Changes Reports

The NOIs, NOTs, Exceedance Reports, and Planned Changes Reports are to be submitted electronically to DWGPreporing@deq.idaho.gov. The email subject line should include:

- The facility name
- The appropriate regional office acronym (CRO, LRO, BRO, TFRO, PRO or IFRO)
- The type of document being submitted

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 Section 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 thirty-five (35) days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Nicole Deinarowicz at (208) 373-0591 or via email nicole.deinarowicz@deq.idaho.gov.

DRAFT

Barry N. Burnell

Water Quality Administrator

