

Response to Comments

General Permit for
Idaho Drinking Water Treatment Facilities
NPDES Permit Number: IDG380000
August 12, 2016

On April 25, 2016, the U.S. Environmental Protection Agency (EPA) Region 10 issued a public notice for the proposed issuance of the National Pollutant Discharge Elimination System (NPDES) General Permit for Idaho Drinking Water Treatment Facilities (DWGP) (NPDES Permit No. IDG380000). The DWGP covers facilities and equipment that discharge from operations related to the manufacture of drinking water. The public comment period closed on May 25, 2016.

During the public comment period, EPA received comments from the City of Pierce (City) dated May 17, 2016, Wilderness Ranch Water Treatment Plant (WTP) dated May 17, 2016, and the Idaho Conservation League (ICL) dated May 24, 2016. The following summarizes the comments that were received along with EPA's corresponding responses. The comment letters are in the Appendix of this document.

Comments received from the City

Comment #1: Request for compliance schedule for compliance with Total Residual Chlorine limits

"The City of Pierce has reviewed the draft NPDES permit for the water treatment plant dischargers, and have the following comments and request. Our water treatment facility has struggled to reliably achieve NPDES permit compliance in the past. The City is planning and has pursued funding to upgrade the backwash handling and treatment system at our water treatment plant to meet NPDES discharge requirements. We are currently in the planning phases of the project, and our goal is that we will receive funding, and complete construction of the water treatment plant upgrades by the end of 2020. Our current backwash system is not capable of reliably achieving the new total residual chlorine limits. We request a 5-year compliance schedule (from the time the final permit is issued) with the EPA to allow time for the planned project to be funded, constructed, and operational prior to final implementation of the proposal total residual chlorine limits contained in the draft permit."

Response: The limits for Total Residual Chlorine (TRC) for the City in the DWGP (Table 7, page 21) are the same as the City's current permit (Average Monthly Limit of 0.01 mg/l; and, Maximum Daily Limit of 0.02 mg/l). EPA cannot provide a compliance schedule for the TRC effluent limits because the effluent limits have not changed. In fact, the City was given a compliance schedule for the limits in the existing permit. A compliance schedule may only be considered when the limits are in the permit for the first time.

The DWGP does contain a new compliance evaluation level, which has changed from 0.1 mg/l to 0.05 mg/l. The compliance evaluation level is a function of the analytical detection level, not the treatment system.

No change to the General Permit resulted from this comment.

Comments received from Wilderness Ranch WTP

Comment #2: Request to replace the monitoring for hardness with the monitoring for alkalinity

“Wilderness Ranch request that the draft general permit that states hardness as the parameter to be monitored be replaced with alkalinity in mg/l as CaCo₃ as also requested by the Idaho Department of Environmental Quality.”

Response: Data for the hardness parameter is necessary to calculate hardness-dependent water quality criteria for metals. The Idaho Department of Environmental Quality (DEQ) did not request that hardness be replaced with alkalinity. Both the draft DWGP and DEQ’s draft and final certification, require monitoring for hardness not alkalinity. A copy of DEQ’s Draft 401 Certification was included in Appendix E (Page 51) of the Fact Sheet.

No changes to the General Permit resulted from this comment.

Comment #3: Request for reduction of monitoring frequency for trihalomethanes

“The draft general permit that states total trihalomethanes be tested quarterly. Wilderness Ranch requests that the quarterly testing be replaced with an annual testing schedule as required in the previous permit.”

Response: Due to a lack of data points generated from the previous permit cycle, EPA determined that a quarterly monitoring frequency is appropriate to characterize the waste streams. Particular to the Wilderness Ranch WTP, Discharge Monitoring Reports (DMRs) do not indicate that EPA received monitoring data for trihalomethanes during the previous permit cycle.

No changes to the General Permit resulted from this comment.

Comments received from ICL

Comment #4: Request for daily effluent monitoring frequency for TSS and TRC

“We are concerned that the monitoring frequencies required by this general permit do not provide adequate resolution to regulate permitted thresholds. We are primarily concerned with total suspended solid (TSS) and Total Residual Chlorine (TRC) contamination. TSS and TRC have permissible daily maximum limits of 45 µg/L and 18 µg/L, respectively, yet neither is required to be monitored on a daily basis. Monitoring of TSS is only required on a monthly basis while TRC monitoring is required on a weekly basis. It seems erroneous to evaluate compliance with a daily maximum limit using data collected on a monthly or weekly time scale. It would be more appropriate for EPA to include daily monitoring provisions as part of this general permit to more accurately assess regulated facilities compliance with the 45 µg/L daily maximum limit for TSS and the 18 µg/L daily maximum limit for TRC.”

Response: The DWGP includes monthly monitoring frequency for Total Suspended Solids (TSS) and weekly monitoring frequency for Total Residual Chlorine (TRC). This monitoring frequency is sufficient to characterize the effluent quality and detect events of noncompliance. EPA based this decision considering the following:

1. A monthly TSS monitoring frequency would generate a minimum of 60 sampling data over a 5-year permit period. A weekly TRC monitoring frequency would generate a minimum of 260 sampling data over a 5-year permit period. EPA determined that this number of samples are sufficient to characterize the effluent quality and to detect events of noncompliance, considering the need for data and as appropriate, the potential cost to the permittee.
2. To ensure proper operation, the DWGP requires that a Best Management Practices (BMP) Plan be developed, and certified by the permittee. Through implementation of the BMP Plan, the permittee must: (a) prevent or minimize the generation and the potential for the release of pollutants to waters of the U.S. through normal operations and ancillary activities; and, (b) ensure the methods of pollution prevention, control, and treatment will be applied to all wastes and other substances discharged, which includes TSS and TRC.
3. Part V.A of the DWGP requires that the Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this general NPDES permit. This requirement helps permittees to stay within compliance of their permitted limits.
4. The permittee has the option to sample more frequently than required. Further, the permittee is required to collect additional samples whenever any discharge occurs that may reasonably be expected to violate the effluent limit. (See Paragraph IV.A.2 of the permit.)

Accordingly for this case, a less than daily monitoring frequency is appropriate to determine compliance with maximum daily effluent limits for TSS and TRC.

No changes to the General Permit resulted from this comment.

Comment #5: Request for case-by-case Endangered Species Act Consultation

“EPA’s Fact Sheet states that a Biological Evaluation (BE) was performed to address potential impacts to ESA species and concluded that the proposed permit would have no effect on endangered species. However, neither EPA’s Technical Fact Sheet nor the Draft General Permit provides details regarding the thoroughness of the BE. We are concerned that this is a generalized determination that lacks the specificity necessary to appropriately address impacts to endangered species. For instance, there are a number of stream and facility-specific variables that would need to be quantified prior to determining that no impact would occur. An example of these variables include, but are not limited to, an assessment of which ESA species are present and the size and health of their population, what are the current water quality conditions of the

specific receiving water body, and what are the constituents and concentrations that will be present in a drinking water facilities discharge. These specific variables would all need to be quantified prior to making an accurate determination as to what effect a permitted action would have on an ESA listed species.”

“In order to comply with Section 7(a)(2) of the Endangered Species Act the EPA should require an ESA consultation to be performed on a case-by-case basis for applicants of this general permit. This case-by-case approach would ensure that the analysis of impacts to endangered species includes the specific details necessary to make an informed and accurate determination.”

Response: Based on the nature of the discharge characteristics, and the discontinuous nature of the discharge, EPA determined that there is no effect to 24 species that either have critical habitat, or are listed as endangered or threatened in Idaho. The chlorine in the discharge is at low levels from the finished potable water source, and the dose of chlorine for drinking water purposes is minimized. In addition there are TRC and TSS limits, and to ensure compliance there is monitoring, recording, and reporting to EPA. In addition, the permit requires non-compliance reporting. Trace amounts of other possible pollutants are also required to be monitored and reported. In general, drinking water treatment plants discharge low levels of pollutants compared to other sources such as sewage treatment plants, food processors, and other industrial manufacturing facilities. EPA determined pursuant to Section 7 of the Endangered Species Act that there is no effect because the issuance of the General Permit is not expected to change the environmental baseline or affect listed species. In addition, EPA intended for this General Permit to provide coverage for similar-types of drinking water treatment plants with similar circumstances within the State of Idaho. EPA determined that there is no effect to Endangered Species from the discharge of similar drinking water treatment plants that are eligible for coverage under this General Permit.

EPA considered the nature of typical discharges from similar facilities before making this determination. However, not all drinking water treatment facilities are eligible for coverage under this General Permit (see Part I of General Permit for eligibility requirements). Facilities ineligible for coverage are described in Part I.C., and would require an application for an individual permit for authorization to discharge. In the case when an individual permit is required, a case-by-case determination would be performed.

No changes to the General Permit resulted from this comment.

Comment #6: Mixing Zone Considerations

“EPA’s Reasonable Potential Analysis determined that technology based effluent limits (TBEL) for TRC would result in a violation of Idaho Water Quality Standards of 19 µg/L and 11 µg/L for acute and chronic concentrations, respectively, in place to protect aquatic life. This general permit proposes permitting TBEL limits for TRC of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit) for facilities that are granted a mixing zone. We remind the EPA that IDAPA 58.01.02.060.01.d prohibits mixing zones that could result in unreasonable interference with, or danger to, beneficial uses. This includes the impairment to the integrity of the aquatic community, as stated in IDAPA 58.01.02.060.01.d.i. We believe the EPA should

explicitly state or cite these rules within the general permit to inform facilities proposing discharges into water bodies that support aquatic life since the proposed TBELs for TRC fail to comply with standards set for the protection of aquatic life. This should decrease the likelihood of facilities spending excess amounts of time during the application process seeking a mixing zone to which they are categorically excluded from receiving.”

Response: Facilities eligible for a mixing zone are required to comply with TBELs for TRC which would not violate Idaho’s Water Quality Standards. On page 47 of the Fact Sheet, EPA determined that there is no reasonable potential to violate Idaho’s Water Quality Standards when a permittee has sufficient dilution for Idaho DEQ to grant a mixing zone. Idaho regulations allow DEQ to grant authorizations of mixing zones as appropriate. DEQ’s 401 Certification states that these discharges will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (IDAPA 58.01.02) and other appropriate water quality requirements of state law which include protection of beneficial uses.

No changes to the General Permit resulted from this comment.

Comment #7: Inclusion of Arsenic Effluent Limits

“This general permit requires three numerical effluent limits: TSS, pH, and total residual chlorine (TRC). This general permit also requires treatment facilities discharging into impaired waters to include effluent limitations for pollutants identified as the cause of impairment. We believe this permit should also include provisions requiring effluent limitations for pollutants that are present in raw influent water regardless of the impairment status of the receiving water body. We are particularly concerned about arsenic, which is a known carcinogen and prevalent throughout Idaho, particularly in southwestern Idaho where DEQ has measured arsenic concentrations in groundwater of up to 1000 µg/L¹. Drinking water facilities utilizing and treating arsenic laden groundwater will build up high concentrations of arsenic in their treatment filter or membrane media². This build up will then be released as pulses of arsenic contaminated water when these facilities perform backwashes to clean out the system.”

“EPA should include provisions in this general permit requiring drinking water treatment facilities located in regions with high arsenic concentrations to monitor and comply with arsenic thresholds listed in Idaho’s Water Quality Rules. These include acute and chronic effluent limits of 340 µg/L and 150 µg/L, respectively, for streams supporting aquatic life and an effluent limit of 10 µg/L for water bodies supporting recreational or domestic uses.”

¹ See Arsenic Levels in Idaho map, available: http://www.deq.idaho.gov/media/496557-arsenic_idaho_map.pdf

² See proposed improvements to the City of Filer’s drinking water treatment plant necessary to mitigate high concentrations of arsenic in raw water, available through Idaho DEQ: <http://www.deq.idaho.gov/>

Response: The General Permit requires permittees to perform annual monitoring for 12 metals, including Arsenic. This requirement would generate data during the next permit cycle to

determine if additional effluent limits (including effluent limits for arsenic) are necessary. During the previous permit cycle, monitoring for arsenic was required for existing permittees covered by this General Permit. The highest reported arsenic concentration during the last permit cycle was 3 µg/l. This concentration of arsenic (i.e., 3 µg/l) is below the Idaho Water Quality Standard of 10 µg/l for Human Health protection, and for the protection of Aquatic Life, below the acute and chronic criteria (340 µg/l, and 150 µg/l, respectively). Accordingly, there is no reasonable potential to exceed Idaho's Water Quality Standards, therefore, no arsenic effluent limits are warranted at this time. Every permittee covered by this General Permit (including permittees with high background concentrations of arsenic in its source water) are required to perform monitoring for arsenic, and to meet effluent limitations described in Part II.A.1-3, which prohibit impairment to beneficial uses of the receiving water. In addition, every permittee must also develop and implement a specifically individualized best management practices (BMP) plan as required in Part III.B. Therefore, the requirements in the General Permit would provide reasonable assurance of environmental protection from permittees that would source water with higher than normal concentrations of contaminants, including, arsenic.

No changes to the General Permit resulted from this comment.

Appendix: Comment Letter



May 17, 2016

Kai Shum
NPDES Permits Unit; US EPA-Region 10
1200 Sixth Avenue, Suite 900, OWW-191
Seattle, WA 98101

ATTN: OWW-191

Dear Kai Shum,

The City of Pierce has reviewed the draft NPDES permit for water treatment plant dischargers, and have the following comments and request. Our water treatment facility has struggled to reliably achieve NPDES permit compliance in the past. The City is planning and has pursued funding to upgrade the backwash handling and treatment system at our water treatment plant to meet NPDES discharge requirements. We are currently in the planning phases of the project, and our goal is that we will receive funding, and complete construction of the water treatment plant upgrades by the end of 2020. Our current backwash system is not capable of reliably achieving the new total residual chlorine limits. We are requesting a 5-year compliance schedule (from the time the final permit is issued) with the EPA to allow time for the planned project to be funded, constructed, and operational prior to final implementation of the proposed total residual chlorine limits contained in the draft permit.

We thank you for your consideration.

A handwritten signature in blue ink, appearing to read "John Stinson", is written over a light blue horizontal line.

John Stinson, City of Pierce Water/Wastewater Technician

Phone 208-464-2222 Fax 208-464-2207
E-mail~cityofpierce@qroidaho.net
404 South Main Street P.O. Box 356
Pierce, Idaho 83546

May 17, 2016



Kai Shum
NPDES Permits Unit; U.S. EPA-Region 10
1200 Sixth Avenue, Suite 900
OWW-191
Seattle, WA 98101

Re: Draft NPDES Permit IDG380000; WW Discharges from Drinking Water Treatment Facilities;
Wilderness Ranch WTP

Dear Kai:

This letter describes our comments with respect to the new NPDES permit for the Wilderness Ranch WTP.

Wilderness Ranch requests that the draft general permit that states hardness as the parameter to be monitored be replaced with alkalinity in mg/L as CaCO₃ as also requested by the Idaho Department of Environmental Quality.

The draft general permit that states total trihalomethanes be tested quarterly. Wilderness Ranch requests that the quarterly testing be replaced with an annual testing schedule as required in the previous permit.

Questions or comments regarding this comment letter should be directed to Butch Anderson at 208-424-3352 or via email: swsmc1@yahoo.com.

Respectfully,

WILLIAM LENDVAY
PRESIDENT, WROA



www.idahoconservation.org

Idaho Conservation League

PO Box 844, Boise, ID 83701
208.345.6933

5/24/16

Kai Shum
US EPA Region 10
1200 Sixth Ave, OWW-130
Seattle, WA 98101

Submitted via email: shum.kai@epa.gov

RE: Idaho Conservation League comments on the draft NPDES General Permit for Drinking Water Treatment Facilities in Idaho

Dear Mr. Shum

Thank you for the opportunity to comment on the draft NPDES General Permit for drinking water treatment facilities in Idaho. Since 1973, the Idaho Conservation League has been Idaho's leading voice for clean water, clean air and wilderness— values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting and restoring water quality throughout Idaho.

Our detailed comments are attached at the end of this letter. Please do not hesitate to contact me at 208-345-6933 ext. 23 or ahopkins@idahoconservation.org if you have any questions regarding our comments or if we can provide you with any additional information on this matter.

Sincerely,

Austin Hopkins
Conservation Assistant

Frequency of Effluent Monitoring

We are concerned that the monitoring frequencies required by this general permit do not provide adequate resolution to regulate permitted thresholds. We are primarily concerned with total suspended solid (TSS) and Total Residual Chlorine (TRC) contamination. TSS and TRC have permissible daily maximum limits of 45 µg/L and 18 µg/L, respectively, yet neither is required to be monitored on a daily basis. Monitoring of TSS is only required on a monthly basis while TRC monitoring is required on a weekly basis. It seems erroneous to evaluate compliance with a daily maximum limit using data collected on a monthly or weekly time scale. It would be more appropriate for EPA to include daily monitoring provisions as part of this general permit to more accurately assess regulated facilities compliance with the 45 µg/L daily maximum limit for TSS and the 18 µg/L daily maximum limit for TRC.

Endangered Species Act Consultation

EPA's Fact Sheet states that a Biological Evaluation (BE) was performed to address potential impacts to ESA species and concluded that the proposed permit would have no effect on endangered species. However, neither EPA's Technical Fact Sheet nor the Draft General Permit provides details regarding the thoroughness of the BE. We are concerned that this is a generalized determination that lacks the specificity necessary to appropriately address impacts to endangered species. For instance, there are a number of stream and facility-specific variables that would need to be quantified prior to determining that no impact would occur. An example of these variables include, but are not limited to, an assessment of which ESA species are present and the size and health of their population, what are the current water quality conditions of the specific receiving water body, and what are the constituents and concentrations that will be present in a drinking water facilities discharge. These specific variables would all need to be quantified prior to making an accurate determination as to what effect a permitted action would have on an ESA listed species.

In order to comply with Section 7(a)(2) of the Endangered Species Act the EPA should require an ESA consultation to be performed on a case-by-case basis for applicants of this general permit. This case-by-case approach would ensure that the analysis of impacts to endangered species includes the specific details necessary to make an informed and accurate determination.

Mixing Zone Considerations

EPA's Reasonable Potential Analysis determined that technology based effluent limits (TBEL) for TRC would result in a violation of Idaho Water Quality Standards of 19 µg/L and 11 µg/L for acute and chronic concentrations, respectively, in place to protect aquatic life. This general permit proposes permitting TBEL limits for TRC of 0.5 mg/l (maximum daily limit) and 0.3 mg/l (average monthly limit) for facilities that are granted

RE: Idaho Conservation League comments on the draft NPDES General Permit for Drinking Water Treatment Facilities in Idaho

Page 2 of 3

a mixing zone. We remind the EPA that IDAPA 58.01.02.060.01.d prohibits mixing zones that could result in unreasonable interference with, or danger to, beneficial uses. This includes the impairment to the integrity of the aquatic community, as stated in IDAPA 58.01.02.060.01.d.i. We believe the EPA should explicitly state or cite these rules within the general permit to inform facilities proposing discharges into water bodies that support aquatic life since the proposed TBELs for TRC fail to comply with standards set for the protection of aquatic life. This should decrease the likelihood of facilities spending excess amounts of time during the application process seeking a mixing zone to which they are categorically excluded from receiving.

Inclusion of Arsenic Effluent Limits

This general permit requires three numerical effluent limits: TSS, pH, and total residual chlorine (TRC). This general permit also requires treatment facilities discharging into impaired waters to include effluent limitations for pollutants identified as the cause of impairment. We believe this permit should also include provisions requiring effluent limitations for pollutants that are present in raw influent water regardless of the impairment status of the receiving water body. We are particularly concerned about arsenic, which is a known carcinogen and prevalent throughout Idaho, particularly in southwestern Idaho where DEQ has measured arsenic concentrations in groundwater of up to 1000 µg/L¹. Drinking water facilities utilizing and treating arsenic laden groundwater will build up high concentrations of arsenic in their treatment filter or membrane media². This build up will then be released as pulses of arsenic contaminated water when these facilities perform backwashes to clean out the system.

EPA should include provisions in this general permit requiring drinking water treatment facilities located in regions with high arsenic concentrations to monitor and comply with arsenic thresholds listed in Idaho's Water Quality Rules. These include acute and chronic effluent limits of 340 µg/L and 150 µg/L, respectively, for streams supporting aquatic life and an effluent limit of 10 µg/L for water bodies supporting recreational or domestic uses.

¹ See *Arsenic Levels in Idaho* map, available: http://www.deq.idaho.gov/media/496557-arsenic_idaho_map.pdf

² See proposed improvements to the City of Filer's drinking water treatment plant necessary to mitigate high concentrations of arsenic in raw water, available through Idaho DEQ: <http://www.deq.idaho.gov/>

RE: Idaho Conservation League comments on the draft NPDES General Permit for Drinking Water Treatment Facilities in Idaho