Fact Sheet

The U.S. Environmental Protection Agency (EPA)

Proposes to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit to Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) to:

City of Kamiah

City of Kamiah Wastewater Treatment Plant

Public Comment Start Date: January 25, 2023

Public Comment Expiration Date: February 24, 2023

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EPA Proposes to Reissue the NPDES Permit

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

This Fact Sheet (FS) includes:

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

CWA § 401 Certification

Since this facility discharges to tribal waters and the Nez Perce Tribe does not have approved Treatment as a State (TAS), EPA is the certifying authority for the permit. See FS Section VI.C. Comments regarding the intent to certify should be directed to the EPA technical contact listed above.

CLEAN WATER ACT §401(A)(2) REVIEW

CWA Section 401(a)(2) requires that, upon receipt of an application and 401 certification, EPA notify a neighboring State or Tribe with TAS when EPA determines that the discharge may affect the quality of the neighboring State/Tribe's waters. As stated above, EPA is the certifying authority and is accepting comment regarding the intent to certify this permit. Once EPA reviews any comments received regarding the intent to certify and has signed a final certification, EPA will determine whether the discharge may affect a neighboring jurisdiction's waters. 33 U.S.C. § 1341(a)(2).

PUBLIC COMMENT

Persons wishing to comment on, or request a Public Hearing for, the draft permit may do so in writing by the expiration date of the Public Comment period. A request for a Public Hearing must state the nature of the issues to be raised as well as the requester's name, address, and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to EPA as described below.

By the expiration date of the public comment period, all written comments and requests must be submitted to whitten.hunter@epa.gov.

After the Public Notice expires, and all comments have been considered, EPA's regional Director for the Water Division will make a final decision regarding permit issuance. If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If substantive comments are received, EPA will address the comments and issue the permit. The permit will become effective no less than 30 days after the issuance date unless an appeal is submitted to the Environmental Appeals Board within 30 days pursuant to 40 CFR 124.19.

DOCUMENTS ARE AVAILABLE FOR REVIEW

The draft NPDES permit, fact sheet and other information can be downloaded from the internet at https://www.epa.gov/npdes-permits/about-region-10s-npdes-permit-program.
The draft NPDES permit, fact sheet and related documents are also available electronically upon request by contacting Hunter Whitten.

For technical questions regarding the permit or fact sheet, contact Hunter Whitten at (208) 378-5761 or whitten.hunter@epa.gov. Services can be made available to persons with disabilities by contacting Audrey Washington at (206) 553-0523.

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Acronyms

1Q10	1 day, 10-year low flow
7Q10	7-day, 10-year low flow
30B3	Biologically based design flow intended to ensure an excursion frequency of less than once every three years, for a 30-day average flow.
30Q10	30-day, 10-year low flow
AML	Average Monthly Limit
BOD_5	Biochemical oxygen demand, five-day
BOD_{5u}	Biochemical oxygen demand, ultimate
°C	Degrees Celsius
C BOD_5	Carbonaceous Biochemical Oxygen Demand
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
, CV	Coefficient of Variation
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved oxygen
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FR	Federal Register
Gpd	Gallons per day
HUC	Hydrologic Unit Code
ICIS	Integrated Compliance Information System
IDEQ	Idaho Department of Environmental Quality
lbs/day	Pounds per day
LTA	Long Term Average
mg/L	Milligrams per liter
mL	Milliliters
µg/L	Micrograms per liter
mgd	Million gallons per day
MDL	Maximum Daily Limit or Method Detection Limit
N	Nitrogen
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System

PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
POTW	Publicly owned treatment works
QAP	Quality assurance plan
RP	Reasonable Potential
RPM	Reasonable Potential Multiplier
RWC	Receiving Water Concentration
SS	Suspended Solids
SSO	Sanitary Sewer Overflow
s.u.	Standard Units
TBEL	Technology Based Effluent Limit
TMDL	Total Maximum Daily Load
TSD	Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001)
TSS	Total suspended solids
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UV	Ultraviolet
WD	Water Division
WLA	Wasteload allocation
WQBEL	Water quality-based effluent limit
WQS	Water Quality Standards
WWTP	Wastewater treatment plant

I. BACKGROUND INFORMATION

A. GENERAL INFORMATION

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

Table 1. General Facility Information

NPDES Permit #:	**ID0028002**
Applicant:	City of Kamiah Wastewater Treatment Plant
Type of Ownership	Publicly Owned Treatment Works
Physical Address:	1775 Laguna Drive Kamiah, ID 83536
Mailing Address:	P.O. Box 338 Kamiah, ID 83536
Facility Contact:	Mike Stanton Public Works Director & Wastewater Operator 208-935-8274 Mikestanton2003@yahoo.com
Facility Location:	46.23646°N 116.03202°W
Receiving Water	Clearwater River
Facility Outfall	46.23722°N 116.02833°W

B. PERMIT HISTORY

The most recent NPDES permit for the City of Kamiah Wastewater Treatment Plant (Kamiah WWTP) was issued on June 9, 2011, became effective on August 1, 2011, and expired on July 31, 2016. An NPDES application for permit issuance was submitted by the permittee on December 15, 2015, with additional information submitted on June 6, 2016. EPA determined that the application was timely and complete. Therefore, pursuant to 40 CFR 122.6, the permit has been administratively continued and remains fully effective and enforceable.

C. TRIBAL CONSULTATION

EPA consults on a government-to-government basis with federally recognized tribal governments when EPA actions and decisions may affect tribal interests. Meaningful tribal consultation is an integral component of the federal government's general trust relationship with federally recognized tribes. The federal government recognizes the right of each tribe to self-government, with sovereign powers over their members and their territory. Executive Order 13175 (November 2000) entitled "Consultation and Coordination with Indian Tribal Governments" requires federal agencies to have an accountable process to assure meaningful and timely input by tribal officials in the development of regulatory policies on matters that have tribal implications and to strengthen the government-to-government relationship with Indian tribes. In May 2011, EPA issued the "EPA Policy on Consultation and Coordination with Indian Tribes" which established national guidelines and institutional controls for consultation.

The Kamiah WWTP is located on the Nez Perce Reservation of the Nez Perce Tribe (Nez Perce or Tribe). Consistent with the Executive Order and the EPA tribal consultation policies, EPA coordinated with the Nez Perce during development of the draft permit and is inviting the Tribe to engage in formal tribal consultation.

II. FACILITY INFORMATION

A. TREATMENT PLANT DESCRIPTION

Service Area

The City of Kamiah owns and operates the Kamiah WWTP located in Kamiah, ID. The Kamiah WWTP receives domestic wastewater from three separate collection systems including the City of Kamiah, Pine Ridge and Valley View Sewer Districts, and the Nez Perce Tribe. The treatment plant provides service to a population of 1900 within these three collection systems. The collection system has no combined stormwater with sanitary wastewater sewers and there are no major industries discharging to the facility.

Treatment Process

The design flow of the facility is 0.613 mgd. The reported actual flows from the facility range from 0.1 to 0.99 mgd (average monthly flow). Exceedance of the design flow only occurred once in the past 5 years of monthly flow data; excluding this data point the next highest average monthly flow was 0.458 mgd.

The facility is a mechanical treatment plant utilizing hydrasieve screening, activated sludge treatment, clarification, and ultraviolet disinfection. The WWTP consists of a primary screen, first-stage aeration tank, second-stage aeration tank, clarifier, and in-line ultraviolet (UV) disinfection prior to discharging to the Clearwater River. In addition, the treatment of sludge generated at this facility utilizes a digester and dewatering unit. A schematic of the wastewater treatment process and a map showing the location of the treatment facility and discharge are included in Appendix A. Facility Information. Because the design flow is less than 1 mgd, the facility is considered a minor facility.

B. OUTFALL DESCRIPTION

The treated effluent from the Kamiah WWTP discharges from one outfall into the Clearwater River. The plant does not discharge into basins, ponds, or other surface impoundments; it does not land apply treated wastewater. The outfall is not equipped with a diffuser, and the point of discharge in the Clearwater River is located within the boundaries of the Nez Perce Reservation. The Clearwater River is a substantially sized waterbody and is a tributary to the Snake River.

C. EFFLUENT CHARACTERIZATION

To characterize the effluent, EPA evaluated the facility's application form, discharge monitoring report (DMR) data, and additional data provided by the Kamiah WWTP. The effluent quality is summarized in Table 2. Data are provided in Appendix B. Water Quality Data.

Table 2. Effluent Characterization

Parameter	95th percentile	Minimum	Notes
BOD, 5-day, 20 deg C	1.5 mg/L	1 mg/L	Monthly Average
BOD, 5-day, 20 deg C	2.3 mg/L	1 mg/L	Weekly Average
BOD, 5-day, % removal	99.4	94	Monthly Minimum
Solids, Total Suspended	5.3 mg/L	1.3 mg/L	Monthly Average
Solids, Total Suspended	11.1 mg/L	2 mg/L	Weekly Average
Solids, Total Suspended % removal	97.4	86.3	Monthly Minimum
E. coli, MTEC-MF	7.7 #/100 mL	1 #/100 mL	Daily Maximum
pH	7.2 SU	6.8 SU	Instant Maximum
pH	6.7 SU	6.5 SU	Instant Minimum
Dissolved Oxygen	5.4 mg/L	2.3 mg/L	Monthly Minimum
Total Phosphorus as P	4.4 mg/L	0.14 mg/L	Daily Maximum
Nitrogen, ammonia total [as N]	0.27 mg/L	0.14 mg/L	Daily Maximum
Temperature in degrees C	18.7	11	Daily Maximum
Temperature in degrees C	16	9.3	Monthly Average
Source: Data submitted by Kamiah WWTP 2017-2022			

D. COMPLIANCE HISTORY

EPA conducted an inspection of the facility on September 22, 2021. The inspection encompassed the wastewater treatment process, records review, operation and maintenance, and the collection system. Overall, the results of the inspection found that the WWTP was in very good compliance with the current discharge permit and all facets of the facility were working as intended. The only noted concern on the inspection report was a violation of total suspended solids (TSS) limits in April of 2021 due to a broken air line in the activated sludge system. The broken air line was promptly fixed upon discovery and no additional issues with TSS have occurred since then.

Additional compliance information for this facility, including compliance with other environmental statutes, is available on Enforcement and Compliance History Online (ECHO). The ECHO web address for this facility is: https://echo.epa.gov/detailed-facility-report?fid=110039886308

Table 3. Summary of Effluent Violations from June 2011 to April 2022

Parameter	Limit Type	Units	Number of Instances
BOD, 5-day, 20 deg. C	Monthly Average	mg/L	1
Solids, total suspended	Monthly Average	lb/day	2
Solids, total suspended	Monthly Average	mg/L	1
Solids, total suspended	Weekly Average	lb/day	6
Solids, total suspended	Weekly Average	mg/L	1
Information accessed in ECHO on April 6, 2022.			

III. RECEIVING WATER

In drafting permit conditions, EPA must analyze the effect of the facility's discharge on the receiving water. The details of that analysis are provided in the Water Quality-Based Effluent Limits (WQBEL) section below. This section summarizes characteristics of the receiving water that impact that analysis.

This facility discharges to the Clearwater River in the City of Kamiah, ID located at latitude 46°14'14" N and longitude 116°01'42" W. The outfall is located approximately 8 miles downstream of the confluence of the middle and south forks of the Clearwater River and 12 miles upstream of the confluence of Lolo Creek and the Clearwater River. This places the outfall within the Clearwater Subbasin of the Clearwater Basin, referenced in Idaho's Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58.01.02.120.08.).

A. WATER QUALITY STANDARDS (WQS)

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires that NPDES permits contain effluent limits necessary to meet water quality standards (WQS). A State/Tribe's WQS are composed of use classifications, numeric and/or narrative water quality criteria, and an antidegradation policy. The use classification system designates the beneficial uses (such as cold-water biota, contact recreation, etc.) that each water body is expected to achieve. The numeric and/or narrative water quality criteria are the criteria deemed necessary by the State/Tribe to support the beneficial use classification of each water body. The anti-degradation policy represents a three-tiered approach to maintain and protect various levels of water quality and uses.

The Nez Perce Tribe has not applied for the status of Treatment as a State (TAS) from EPA for purposes of the Clean Water Act. If the Nez Perce Tribe is granted TAS, and it has WQS approved by EPA, those tribal WQS will be used for determining effluent limitations. In the meantime, the Idaho WQS were used as reference for setting permit limits, and to protect downstream uses in the State of Idaho, 56 miles downstream.

Designated Beneficial Uses

This facility discharges to the Clearwater River in the Clearwater Subbasin (HUC 17060306) Water Body Unit C-22. At the point of discharge, the Clearwater River is protected for the following designated uses:

- Cold water aquatic life
- Primary contact recreation
- Domestic water supply
- Salmonid spawning

In addition, WQS state that all waters of the State of Idaho are protected for industrial and agricultural water supply, wildlife habitats and aesthetics (IDAPA 58.01.02.100.03.b and c, 100.04 and 100.05).

B. RECEIVING WATER QUALITY

The water quality for the receiving water is summarized in Table 4. Water quality measurements were collected from United States Geological Service (USGS) station 13340000 located in Orofino, ID.

Table 4. Receiving Water Quality Data

Parameter	Units	Percentile	Value
Temperature	°C	95th	21.5
pH	Standard units	5th – 95th	7.71-7.89
Source: Data collected by USGS station 13340000, 1973-2022			

Water Quality Limited Waters

The Idaho Department of Environmental Quality (IDEQ) 2022 Integrated Report states that this portion of the Clearwater River is Category 3T-waters, waters that are wholly or partially on Indian reservations and are not subject to the state's § 305(b)/§ 303(d) reporting requirements. This segment of the river has not been assessed by the State or the Nez Perce to determine whether beneficial uses are being attained or impaired.

Low Flow Conditions

Critical low flows for the receiving water are summarized in Table 5 and were estimated based on USGS gage data (USGS 13340000) from 1989 through 2020. The previous permit used gage data from USGS station #13339000, in Kamiah. However, data collection at this station stopped in 1965. To best portray the current flow regime of the Clearwater River, the proposed permit is based upon modern data from a downstream monitoring location. Low flows are defined in Appendix D. Reasonable Potential and WQBEL Calculations.

Table 5. Critical Flows in Receiving Water

Flows	Annual Flow (cfs)
1Q10	671
7Q10	839
30B3	1147
30Q5	1093
Harmonic Mean	3123
Source: USGS station 13340000 located at Orofino, Idaho in the Clearwater River. (1990- 2020)	

IV. EFFLUENT LIMITATIONS AND MONITORING

Table 6 below presents the existing effluent limits and monitoring requirements in the current permit. Table 7, below, presents the effluent limits and monitoring requirements proposed in the draft permit.

The draft permit includes the following changes to the effluent limits and monitoring requirements:

- Introduction of alternative *Enterococci* bacteria limit to be sampled 5 times a month. The permittee must monitor for and meet limits for *Enterococci* or *E. coli*, but not both.
- Removed weekly *E. coli* limit of 126 organisms per 100 mL.
- The temperature monitoring requirement for effluent changed from 5 times per week (grab sample) to continuous recording.
- Added upstream surface water continuous temperature monitoring.

Table 6. Existing Permit - Effluent Limits and Monitoring Requirements

Parameter	Effluent Limitations				Monitoring Requirements	
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Flow, mgd	Report	---	Report	Effluent	Continuous	Recording
Biochemical Oxygen Demand[1,2] (BOD_5)	30 mg/L	45 mg/L	---	Influent[1] and Effluent	1/week	24-hour composite
	18 lb/day[2]	28 lb/day[2]	---			Calculation[2,3]
	85% Removal (Min.)[3]	---	---		1/month	
Total Suspended Solids[1,2] (TSS)	30 mg/L	45 mg/L	---	Influent[1] and Effluent	1/week	24-hour composite
	18 lb/day[2]	28 lb/day[2]	---			Calculation[2,3]
	85% Removal (Min.)[3]	---	---		1/month	
E. coli Bacteria[4,6,8]	126/100 mL[3]	126/100 mL[3]	281/100 mL[3]	Effluent	5/month	Grab
pH[6], s.u.	Within the range of 6.5 and 9.0			Effluent	5/week	Grab
Dissolved Oxygen, mg/L	Report minimum and average monthly value			Effluent	2/week	Grab
Total Phosphorus[7] as P, mg/L	Report[7]	---	Report[7]	Effluent	1/quarter	24-hour composite
Total Ammonia[7] as N, mg/L	Report[7]	---	Report[7]	Effluent	1/quarter	24-hour composite
Temperature in degrees C	Report	---	Report	Effluent	5/week	Grab
NPDES Application Form 2A Effluent Testing Data[5], mg/L	---	---	---	Effluent	3x/5 years	---

1. Influent and effluent grab samples shall be collected during the same 8-hour period.
2. Loading is normally calculated by multiplying the concentration in mg/L by the average daily flow for the day of sampling in mgd and a conversion factor of 8.34. If the concentration is measured in µg/L, the conversion factor is 0.00834. For more information on calculating, averaging, and reporting loads and concentrations see the NPDES Self-Monitoring System User Guide (EPA 833-B-85-100, March 1985).
3. Percent removal is calculated using the following equation: ((Average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration) x 100
4. The average monthly *E. coli* bacteria counts must not exceed a geometric mean of 126/100 ml based on a minimum of five samples taken every 3 - 7 days within a calendar month. See Part VI of the permit for a definition of geometric mean.
5. Effluent Testing Data – See NPDES Permit Application Form 2A, Table B for the list of pollutants to be included in this testing. The Permittee must use sufficiently sensitive analytical methods in accordance with Part I.B.5 of the permit
6. Reporting is required within 24 hours of a maximum daily limit or instantaneous maximum limit violation.
7. The maximum ML for the parameters is as follows: Total Ammonia is 0.05 mg/l, Total Phosphorus is 0.01 mg/l.
8. *E. coli* weekly and monthly limits are geometric means, the maximum daily limit is an instantaneous maximum.

Table 7. Draft Permit - Effluent Limits and Monitoring Requirements

Parameter	Effluent Limitations				Monitoring Requirements	
	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Flow, mgd	Report	---	Report	Effluent	continuous	Recording
Biochemical Oxygen Demand[1,2] (BOD_5)	30 mg/L	45 mg/L	---	Influent[1] and Effluent	1/week	24-hour composite
	18 lb/day[2]	28 lb/day[2]	---			Calculation[2,3]
	85% Removal (Min.)[3]	---	---		1/month	
Total Suspended Solids[1,2] (TSS)	30 mg/L	45 mg/L	---	Influent[1] and Effluent	1/week	24-hour composite
	18 lb/day[2]	28 lb/day[2]	---			Calculation[2,3]
	85% Removal (Min.)[3]	---	---		1/month	
Enterococci Bacteria[4,5,6,7]	35/100 mL	---	130/100 mL	Effluent	5/month	Grab
E. coli Bacteria[4,5,6,7]	126/100 mL	---	281/100 mL	Effluent	5/month	Grab
pH[5], s.u.	Within the range of 6.5 and 9.0			Effluent	5/week	Grab

Dissolved Oxygen in mg/L	Report minimum and average monthly value			Effluent	2/week	Grab
Total Phosphorus[8] as P, mg/L	Report	---	Report	Effluent	1/quarter	24-hour composite
Total Ammonia[8] as N, mg/L	Report	---	Report	Effluent	1/quarter	24-hour composite
Temperature in degrees C	Report	---	Report	Effluent	Continuous	Recording
Per- and Polyfluoroalkyl Substances (PFAS) ng/L[9]	Report	---	Report	Influent and Effluent	Quarterly[10]	24-hour Composite
Per- and Polyfluoroalkyl Substances (PFAS) mg/kg dry weight[9]	---	---	Report	Sludge	Quarterly[10]	Grab
NPDES Application Form 2A Effluent Testing Data[11]	---	---	---	Effluent	1/year	---

1. Influent and effluent grab samples shall be collected during the same 8-hour period.
2. Loading is normally calculated by multiplying the concentration in mg/L by the average daily flow for the day of sampling in mgd and a conversion factor of 8.34. If the concentration is measured in µg/L, the conversion factor is 0.00834. For more information on calculating, averaging, and reporting loads and concentrations see the NPDES Self-Monitoring System User Guide (EPA 833-B-85-100, March 1985).
3. Percent removal is calculated using the following equation: ((Average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration) x 100
4. The average monthly *E. coli* bacteria counts must not exceed a geometric mean of 126/100 ml and the monthly *Enterococci* bacteria counts must not exceed a geometric mean of 35/100 ml based on a minimum of five samples taken every 3 - 11 days within a calendar month. See Part VI of this permit for a definition of geometric mean.
5. Reporting is required within 24 hours of a maximum daily limit or instantaneous maximum limit violation.
6. *E. coli* and *Enterococci* monthly limits are geometric means, the maximum daily limit is an instantaneous maximum.
7. The permittee is required to monitor for and meet the applicable limits for either E. coli or Enterococci, but not both.
8. The maximum ML for the parameters is as follows: Total Ammonia is 0.05 mg/, Total Phosphorus is 0.01 mg/L.
9. See Part I.B.10. in the permit
10. Monitoring for PFAS chemicals is required for 2 years (8 quarters), beginning at the start of the first complete quarter in the third year of the permit term.
11. Effluent Testing Data – See NPDES Permit Application Form 2A, Table B for the list of pollutants to be included in this testing. The Permittee must use sufficiently sensitive analytical methods in accordance with Part I.B.5 of this permit.

A. BASIS FOR EFFLUENT LIMITS

In general, the CWA requires that the effluent 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. A WQBEL is designed to ensure that the WQS applicable to a waterbody are being met and may be more stringent than TBELs.

Pollutants of Concern

Pollutants of concern are those that either have TBELs or may need WQBELs. EPA identifies pollutants of concern for the discharge based on those which:

- Have a TBEL
- Have an assigned wasteload allocation (WLA) from a TMDL
- Had an effluent limit in the previous permit
- Are present in the effluent monitoring. Monitoring data are reported in the application and DMR and any special studies
- Are expected to be in the discharge based on the nature of the discharge

The wastewater treatment process for this facility includes both primary and secondary treatment, as well as UV disinfection. Pollutants expected in the discharge from a facility with this type of treatment, include but are not limited to: five-day biochemical oxygen demand (BOD_5), TSS, *E. coli* bacteria, *Enterococci* bacteria, pH, ammonia, temperature, and phosphorus.

Based on this analysis, pollutants of concern are as follows:

- BOD_5
- TSS
- *E. coli* bacteria
- *Enterococci* bacteria
- pH
- Temperature
- Ammonia
- Phosphorus
- PFAS

Technology-Based Effluent Limits (TBELs)

Federal Secondary Treatment Effluent Limits

The CWA requires POTWs to meet performance-based requirements based on available wastewater treatment technology. CWA § 301 established a required performance level, referred to as "secondary treatment," which POTWs were required to meet by July 1, 1977. EPA has developed and promulgated "secondary treatment" effluent limitations,

which are found in 40 CFR 133.102. These TBELs apply to certain municipal WWTPs and identify the minimum level of effluent quality attainable by application of secondary treatment in terms of BOD_5, TSS, and pH. The federally promulgated secondary treatment effluent limits are listed in Table 8. For additional information and background refer to Part 5.1 *Technology Based Effluent Limits for POTWs* in the Permit Writers Manual.

Table 8. Secondary Treatment Effluent LimitsParameter

Parameter	30-day average	7-day average
BOD_5	30 mg/L	45 mg/L
TSS	30 mg/L	45 mg/L
Removal for BOD_5 and TSS (concentration)	85% (minimum)	--
pH	within the limits of 6.0 - 9.0 s.u.	
Source: 40 CFR 133.102		

Mass-Based Limits

40 CFR 122.45(f) requires that effluent limits be expressed in terms of mass, except under certain conditions. 40 CFR 122.45(b) requires that effluent limitations for POTWs be calculated based on the design flow of the facility. The mass-based limits are expressed in pounds per day and are calculated as follows:

Mass based limit = concentration limit (mg/L) × design flow (mgd) × 8.341[a]

Since the design flow for this facility is 0.613 mgd, the technology-based mass limits for BOD_5 and TSS are calculated as follows:

Average Monthly Limit = 30 mg/L × 0.613 mgd × 8.34 = 153 lbs/day

Average Weekly Limit = 45 mg/L × 0.613 mgd × 8.34 = 230 lbs/day

Due to a miscalculation, the initial 2002 permit erroneously applied mass based monthly limits of 18 lbs/day and weekly limits of 28 lbs/day for TSS and BOD_5. These limits were retained in the 2011 discharge permit but were identified as being incorrect at that time. In the 2011 reissuance, EPA acknowledged that the previous permit limit for loading was miscalculated by a factor of 8.34, and the modification of the loading limits would be considered, either through a permit modification or at the time of reissuance of the next permit.

Current and past discharge records of TSS and BOD_5 indicate that although there are occasional exceedances of the current load limit, they are not frequent. The effluent consistently achieved by the facility is well below the current loading limits. Therefore, EPA is not proposing any changes to BOD_5 and TSS mass-based effluent limits for this reissuance and is maintaining the current monthly limits of 18 lbs/day and weekly limits of 28 lbs/day for TSS and BOD_5.

[a] 8.34 is a conversion factor with units (lb ×L)/ (mg × gallon×10^6)

Water Quality-Based Effluent Limits (WQBELs)

Statutory and Regulatory Basis

CWA § 301(b)(1)(C) requires the development of limitations in permits necessary to meet WQSs. Discharges to State or Tribal waters must also comply with conditions imposed by the State or Tribe as part of its certification of NPDES permits under CWA § 401. 40 CFR 122.44(d)(1) implementing CWA § 301(b)(1)(C) requires that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State or Tribal WQS, including narrative criteria for water quality. Effluent limits must also meet the applicable water quality requirements of affected States other than the State in which the discharge originates, which may include downstream States (40 CFR 122.4(d), 122.44(d)(4), see also CWA § 401(a)(2)).

The regulations require the permitting authority to make this evaluation using procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant in the effluent, species sensitivity (for toxicity), and where appropriate, dilution in the receiving water. The limits must be stringent enough to ensure that WQS are met and must be consistent with any available wasteload allocation (WLA) for the discharge in an approved TMDL. If there are no approved TMDLs that specify wasteload allocations for this discharge; all the WQBELs are calculated directly from the applicable WQSs.

Reasonable Potential Analysis and Need for WQBELs

EPA uses the process described in the *Technical Support Document for Water Quality-based Toxics Control* (*TSD*) 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, 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 WQBEL must be included in the permit.

In some cases, a dilution allowance or mixing zone is permitted. A mixing zone is a limited area or volume of water where initial dilution of a discharge takes place and within which certain water quality criteria may be exceeded (EPA, 2014). While the criteria may be exceeded within the mixing zone, the use and size of the mixing zone must be limited such that the waterbody as a whole will not be impaired, all designated uses are maintained, and acutely toxic conditions are prevented.

The Idaho Water Quality Standards at IDAPA 58.01.02.060 provides Idaho's mixing zone policy for point source discharges. The proposed mixing zones are summarized in Table 9. All dilution factors are calculated with the effluent flow rate set equal to the design flow of 0.613 mgd.

Table 9. Mixing Zones

Criteria Type	Critical Low Flow (cfs)	Mixing Zone (% of Critical Low Flow)	Dilution Factor
Acute Aquatic Life	671	0	1
Chronic Aquatic Life (except ammonia)	839	0	1
Chronic Aquatic Life (ammonia)	1147	0	1

The reasonable potential analysis and WQBEL calculations were based on mixing zones shown in Table 9.

The equations used to conduct the reasonable potential analysis and calculate the WQBELs are provided in Appendix D. Reasonable Potential and WQBEL Calculations. The Idaho water quality standards are listed in Table 10, below.

Table 10. Relevant Idaho Water Quality Standards

Parameter	Relevant Standards from IDAPA 58.01.02.250		
E. coli	No greater than 126 organisms/100 mL (Geometric Mean) over a 45 day period, based on at least 5 samples every 3-11 days	OR	No greater than 410 organisms/100 mL in more than 10% of all samples over a 45 day period
Enterococci	No greater than 35 organisms/100 mL (Geometric Mean) over a 45 day period, based on at least 5 samples every 3-11 days	OR	No greater than 130 organisms/100 mL in more than 10% of all samples over a 45 day period
pH	Maintain constant level of pH values from 6.5 - 9 s.u		
Dissolved Oxygen	Greater than 6.0 mg/L at all times		6.0 mg/L (daily minimum, water column) 5.0 mg/L (daily minimum, intergravel)
Temperature	13 ^{o}C or less		Maximum daily average no greater than 9 ^{0}C
Ammonia	Not to exceed acute criteria for cold water or chronic criteria for cold water, early life stages present (see Figure 1. Ammonia Criteria Calculation for equations to calculate criteria)		
Nutrients	No visible slime growths or other nuisance aquatic growths impairing designated beneficial uses due to excess nutrients		
Source: IDAPA 58.01.02 – Idaho Water Quality Standards			

Reasonable Potential and WQBELs

The reasonable potential and WQBEL for specific parameters are summarized below. The calculations are provided in Appendix D. Reasonable Potential and WQBEL Calculations.

Ammonia

Ammonia criteria are based on a formula which relies on the pH and temperature of the receiving water, because the fraction of ammonia present as the toxic, un-ionized form increases with increasing pH and temperature. Therefore, the criteria become more stringent as pH and temperature increase. Figure 1 below details the equations used to determine ammonia water quality criteria for acute cold and warm water toxicity and chronic toxicity for cold water with and without the presence of early life stages. The calculated criteria are 6.89 mg N/L acute and 1.81 mg N/L chronic.

Figure 1. Ammonia Criteria Calculation

Total ammonia nitrogen criteria (mg N/L):

Annual Basis

Based on IDAPA 58.01.02

INPUT	
1. Receiving Water Temperature (deg C):	21.5
2. Receiving Water pH:	7.89
3. Is the receiving water a cold water designated use?	Yes
4. Are non-salmonid early life stages present or absent?	Present
OUTPUT	
Total ammonia nitrogen criteria (mg N/L):	
Acute Criterion (CMC)	**6.89**
Chronic Criterion (CCC)	**1.81**

Acute Criteria Equation: Cold Water

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

Acute Criteria Equation: Warm Water

$$CMC = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

Chronic Criteria: Cold Water, Early Life Stages Present

$$CCC = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \bullet MIN(2.85, 1.45 \cdot 10^{0.028(25-T)})$$

Chronic Criteria: Cold Water, Early Life Stages Absent

$$CCC = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) \bullet 1.45 \cdot 10^{0.028(25-T)})$$

The maximum daily concentration of total ammonia as nitrogen in the effluent was 1.49 mg/L. A reasonable potential calculation showed that the WWTP discharge would have no reasonable potential to cause or contribute to a violation of the water quality criteria for ammonia. Therefore, the draft permit does not contain WQBELs for ammonia. Effluent monitoring for ammonia is again required in the proposed permit to calculate reasonable potential during the next permit reissuance. See Appendix D. Reasonable Potential and WQBEL Calculationsfor reasonable potential calculations for ammonia.

Temperature

The Idaho water quality standards at IDAPA 58.01.02.250.02(f) establish criteria for the protection of salmonid spawning, outlined below in Figure 2. The 95th percentile maximum receiving water temperature in the Clearwater River is 21.5 ^{o}C and the 95th percentile maximum effluent temperature from the discharge is 18.7 ^{o}C. A reasonable potential calculation showed that the WWTP discharge would have no reasonable potential to cause or contribute to a violation of the water quality criteria for temperature. However, the facility is currently only sampling temperature 5 times a week via grab sampling. To calculate the reasonable potential more accurately during the next permit resissuance, EPA has included a monitoring provision that requires continuous temperature monitoring in both the effluent and surface water immediately upstream of the discharge.

Figure 2: Reasonable Potential Calculation for Temperature

Freshwater Temperature Reasonable Potential and Limit Calculation

ID 58.01.02 250

02.b	Cold Water	*22.0 °C*	*or less with maximum daily average temperature of*	*19.0 °C*	
02.f.	Salmonid Spawing	*13.0 °C*	*or less with maximum daily average temperature of*	*9.0 °C*	As determined by IDEQ "Water Body Assessment Guidance"
03.a.	Seasonal Cold	*26.0 °C*	*or less with maximum daily average temperature of*	*23.0 °C*	
04.a.	Warn Water	*33.0 °C*	*or less with maximum daily average temperature of*	*29.0 °C*	

	Cold Water Critera	
INPUT		Data Source
Chronic Dilution Factor at Mixing Zone Boundary	1.0	High River Flow
Ambient Temperature (T) (Upstream Background)	21.5 °C	95th Percentile based on permittee or USGS data
Effluent Temperature	18.7 °C	95th Percentile of **monthly daily max effluent** based on daily max per DMR data
Aquatic Life Temperature WQ Criterion in Fresh Water	19.0 °C	Lowest daily max criteria
OUTPUT		
Temperature at Chronic Mixing Zone Boundary:	18.7 °C	Mass balance
Incremental Temperature Increase or decrease:	-2.8 °C	WQS 401.c - allow for maximum of 0.3°C rise in receiving water temperature.

pH

The Idaho WQS at IDAPA 58.01.02.250.01.a require pH values of the river to be within the range of 6.5 to 9.0. Mixing zones are generally not granted for pH, therefore the most stringent water quality criterion must be met before the effluent is discharged to the receiving water. Effluent pH data were compared to the water quality criteria. The effluent pH values at the WWTP range from 6.5 to 7.8, within the Idaho water quality standards of 6.5 to 9.0. Therefore, there is no reasonable potential for the discharge to cause or contribute to a violation of the water quality criteria for pH.

Phosphorus

The Idaho WQS state that surface waters of the State of Idaho shall be free from excess nutrients, including phosphorus, that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses. The section of the Clearwater River where the facility is discharging is designated as 3T tribal waters (waters that are wholly or partially on tribal lands and are not subject to state required reporting) and has not been assessed for any potential nutrient degradation.

There is no indication that the discharge from this facility has the reasonable potential to cause or contribute to an exceedance of the narrative criteria. Accordingly, no nutrient limits are proposed. The proposed permit retains quarterly phosphorus monitoring to assess nutrient reasonable potential in the next permitting cycle.

Bacteria

IDAPA 58.01.02.251.02.a and b express both *E. coli* and *Enterococci* bacteria as indicators of potential fecal contamination in waters that are designated for recreation. Either *E. coli* or *Enterococci* may be monitored and used to determine the potential impact of the water quality on human health.

Waters that are designated for recreation are not to contain either *E. coli* bacteria in concentrations exceeding a geometric mean of 126 organisms per 100 mL or *Enterococci* bacteria in concentrations exceeding a geometric mean of 35 organisms per 100 mL of water. Both criteria are based on a minimum of five samples taken every three to eleven days over a 45-day period. Further, IDAPA 58.01.02.251.02.c states that the averaging period for bacteria criteria within permits is to be 30 days or less based on a minimum of 5 samples.

The Idaho WQS also state that a water sample that exceeds certain "single sample maximum" values indicate a likely exceedance of the geometric mean criterion, although it is not, in and of itself, a violation of WQS. For waters designated for primary contact recreation, the "single sample maximum" value is 410 *E. coli* organisms per 100 mL and 130 *Enterococci* organisms per 100 mL (IDAPA 58.01.02.251.02. a. (2), IDAPA 58.01.02.251.02.b.ii.). The facility has had no issues attaining the existing *E. coli* maximum daily limits, further, the CWA and NPDES regulations generally prohibit the resissuance of NPDES permits with less stringent limits (see antibacksliding discussion below). Therefore, the draft permit will retain the previous *E. coli* maximum daily limit of 281/100 ml. For *Enterococci* the draft permit applies the WQS value of 130/100 ml as the maximum daily limit.. Consistent with the criteria, either the *E. coli* OR the *Enterococci* limits and monitoring requirements must be met by the facility, not both.

40 CFR 122.45(d)(2) requires that effluent limitations for continuous discharges from POTWs be expressed as average monthly and average weekly limits, unless impracticable. Additionally, the terms "average monthly limit" and "average weekly limit" are defined in 40 CFR 122.2 as being arithmetic (as opposed to geometric) averages. It is impracticable to properly implement a 30-day geometric mean criterion in a permit using monthly and weekly arithmetic average limits.

The geometric mean of a given data set is equal to the arithmetic mean of that data set if and only if all the values in that data set are equal. Otherwise, the geometric mean is always less than the arithmetic mean. To ensure that the effluent limits are "derived from and comply with" the geometric mean water quality criterion, as required by 40 CFR 122.44(d)(1)(vii)(A), it is necessary to express the effluent limits as a monthly geometric mean and an instantaneous maximum limit.

A mixing zone is not appropriate for bacteria for waters designated for contact recreation and IDAPA 58.01.02.251.02.c states that the averaging period for bacteria criteria within permits is to be 30 days or less based on a minimum of 5 samples. Therefore, the draft permit requires either *E. coli* or *Enterococci* to be sampled at least 5 times a month and contains a monthly geometric mean effluent limit of 126 organisms per 100 mL for *E. coli* (IDAPA 58.01.02.251.02.a.i.) and 35 organisms per 100 mL for *Enterococci* (IDAPA 58.01.02.251.02.b.i.).

The goal of a WQBEL is to ensure a low probability that WQS will be exceeded in the receiving water because of a discharge, while considering the variability of the pollutant in the effluent. Because a single sample value exceeding the single sample maximum indicates a likely exceedance of the geometric mean criterion, this limit, in addition to a monthly geometric mean limit, ensures that the discharge will have a low probability of exceeding WQS for *E. coli* and *Enterococci*.

Consistent with the criteria, either the *E. coli* OR the *Enterococci* limits and monitoring requirements must be met by the facility, not both.

The previous permit imposed an additional weekly *E. coli* limit of 126 organisms per 100 mL of water that is not included in the proposed permit. Therefore, the draft permit has a less stringent effluent limit than the previous permit. However, as explained above, Idaho has updated their bacteria criteria since the previous permit was issued. The draft permit limits are consistent with the current water quality criteria (See also the Antibacksliding discussion below).

Residues

The Idaho WQS require that surface waters of the State be free from floating, suspended, or submerged matter of any kind in concentrations impairing designated beneficial uses. The draft permit contains a narrative limitation prohibiting the discharge of such materials.

Dissolved Oxygen

Idaho WQS state that waters with cold water designations must always maintain a level of dissolved oxygen greater than 6.0 mg/L (IDAPA 58.01.02.250.02.a). Additionally, waters designated as salmonid spawning habitats must meet a daily minimum intergravel concentration 5.0 mg/L (IDAPA 58.01.02.250.02.f.i(a)). The monthly average DO discharge for this facility is 6.3 mg/L with a 5th percentile value of 6.2 mg/L. The monthly average minimum DO discharge for this facility is 5.4 mg/L with a 5th percentile value of 5.3 mg/L. The proposed permit addresses DO concerns by imposing BOD_5 limits, which the facility has met and can continue to meet. EPA concludes that this will be effective at controlling DO impacts from the facility.

Antibacksliding

CWA § 402(o) and 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. For explanation of the antibacksliding exceptions refer to Chapter 7 of the Permit Writers Manual *Final Effluent Limitations and Anti-backsliding*.

E. coli

Backsliding of a WQBEL is allowed as long as the provisions of CWA section 303(d)(4) are met. Where the quality of the water meets or exceeds water quality standards, an effluent limit may be relaxed as long as the revision is consistent with the State's antidegradation policy. See CWA § 303(d)(4)(B).

The draft permit is proposing less stringent effluent limits for *E. coli.* The existing 2011 permit has a maximum daily effluent limit of 281 organisms/100 mL, and both weekly and monthly geometric mean limits of 126 organisms/100 mL. The draft permit removes the existing weekly limit. Removal of the weekly limit in the draft permit is consistent with current Idaho WQS which were approved by EPA in February 2022. As explained above, EPA did not provide a mixing zone. Thus, the effluent limits meet the *E. coli* water quality criteria at the end of pipe.

The Clearwater River is designated as 3T waters, the water quality is unassesed, and there is no indication that the waterbody is not meeting Idaho WQS. As explained in Appendix F. Antidegradation Analysis, the permit is consistent with Idaho's antidegradation policy. Therefore, the provisions of CWA § 303(d)(4) for this proposed action are met and the *E.coli* effluent limits can be relaxed.

B. MONITORING REQUIREMENTS

Section 308 of the CWA and 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 permit also requires the permittee to perform effluent monitoring required by the NPDES Form 2A application, so that these data will be available when the permittee applies for a renewal of its NPDES permit.

The permittee is responsible for conducting the monitoring and for reporting results on DMRs or on the application for renewal, as appropriate, to EPA.

Effluent Monitoring

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 EPA-approved test methods (generally found in 40 CFR 136) or as specified in the permit.

Monitoring Changes from the Previous Permit

Temperature

The draft permit proposes a switch in temperature monitoring from a grab sample 5 days per week to a continuous recording of the effluent. Temperature is a key criterion of fish population viability and is identified as a vital attribute in bull trout, Chinook salmon, and steelhead recovery plans.

This discharge currently has no reasonable potential to violate the state WQS for temperature based on the available DMR data. However, continuous data will be used to assess reasonable potential analysis in the next permit reissuance.

Enterococci

The same monitoring requirements that are currently in place for *E. coli* will apply to *Enterococci.*

PFAS

Per- and polyfluoroalkyl substances (PFAS) are a group of synthetic chemicals that have been in use since the 1940s. PFAS are found in a wide array of consumer and industrial products. Due to their widespread use and persistence in the environment, most people in

the United States have been exposed to PFAS. Discharges of PFAS above certain levels may cause adverse effects to human health effects or aquatic life.[2,3]

Since PFAS chemicals are persistent in the environment and may lead to adverse human health and environmental effects, the draft permit requires that the permittee conduct quarterly influent, effluent, and sludge sampling for PFAS chemicals for two years. The monitoring requirements for PFAS chemicals are deferred until the third and fourth years of the permit term (beginning during the first complete quarter[4] of the third year). This will give the permittee time to plan for this new monitoring requirement (e.g., to obtain funding, train employees, and find a suitable contract laboratory).

The purpose of these monitoring and reporting requirements is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits. EPA is authorized to require this monitoring and reporting by CWA section 308(a). The permit conditions reflect EPA's commitments in the PFAS Strategic Roadmap, which directs the Office of Water to leverage NPDES permits to reduce PFAS discharges to waterways "at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources."

EPA notes that there is currently not an analytical method approved in 40 CFR Part 136 for PFAS. As stated in 40 CFR 122.44(i)(1)(iv)(B), in the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR Part 136 or methods are not otherwise required under 40 CFR chapter I, subchapter N or O, monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters. Therefore, the Permit specifies that until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Draft Method 1633.

Surface Water Monitoring

In general, surface water monitoring may be required for pollutants of concern to assess the assimilative capacity of the receiving water for the pollutant. In addition, surface water monitoring may be required for pollutants for which the water quality criteria are dependent and to collect data for TMDL development if the facility discharges to an impaired water body.

In order to better assess the potential impact that the temperature of this discharge may have on the Clearwater River surface water monitoring for temperature is included in the proposed permit. Continuous temperature monitoring must be conducted upstream of the

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[2] EPA, *EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan*, EPA 823R18004, February 2019. Available at: https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf

[3] EPA, *Fact Sheet: Draft 2022 Aquatic Life Ambient Water Quality Criteria for Perfluorooctanoic acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS)*. Available at: https://www.epa.gov/system/files/documents/2022-04/pfoa-pfos-draft-factsheet-2022.pdf

[4] Quarters are defined as: January 1 to March 31; April 1 to June 30; July 1 to September 30; and October 1 to December 31.

discharge, outside the influence of the discharge for the duration of the permit. No other surface water monitoring is required.

Electronic Submission of Discharge Monitoring Reports

The permit requires that the permittee submit DMR data electronically using NetDMR. NetDMR is a national web-based tool that allows DMR data to be submitted electronically via a secure Internet application.

EPA currently conducts free training on the use of NetDMR. Further information about NetDMR, including upcoming trainings and contacts, is provided on the following website: https://netdmr.epa.gov. The permittee may use NetDMR after requesting and receiving permission from EPA Region 10.

Part III.B of the Permit requires that the Permittee submit a copy of the DMRs to the Nez Perce Tribe. Currently, the permittee may submit a copy to the Nez Perce Tribe by one of three ways: (1) a paper copy may be mailed, (2) the email address for the Nez Perce Tribe may be added to the electronic submittal through NetDMR, or (3) the permittee may provide the Nez Perce viewing rights through NetDMR.

C. SLUDGE (BIOSOLIDS) REQUIREMENTS

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

Until future issuance of a sludge-only permit, sludge management and disposal activities at each facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503 and any requirements of the State's biosolids program. The Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a permit has been issued.

V. OTHER PERMIT CONDITIONS

A. QUALITY ASSURANCE PLAN

The City of Kamiah is required to update the quality assurance plan (QAP) within 180 days of the effective date of the final permit. The QAP must include standard operating procedures the permittee will 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 EPA and the Nez Perce upon request.

B. OPERATION AND MAINTENANCE PLAN

The permit requires the City of Kamiah to properly operate and maintain all facilities and systems of treatment and control. Proper operation and maintenance is essential to meeting discharge limits, monitoring requirements, and all other permit requirements at all times. The permittee is required to develop and implement an operation and maintenance plan for their facility within 180 of the effective date of the permit. The plan must be retained on site and made available to EPA and the Nez Perce upon request.

C. SANITARY SEWER OVERFLOWS (SSOS) AND PROPER OPERATION AND MAINTENANCE OF THE COLLECTION SYSTEM

SSOs are not authorized under this permit. The permit contains language to address SSO reporting and public notice and operation and maintenance of the collection system. The permit requires that the permittee identify SSO occurrences and their causes. In addition, the permit establishes reporting, record keeping and third-party notification of SSOs. Finally, the permit requires proper operation and maintenance of the collection system.

The following specific permit conditions apply:

Immediate Reporting – The permittee is required to notify EPA of an SSO within 24 hours of the time the permittee becomes aware of the overflow. (See 40 CFR 122.41(l)(6))

Written Reports – The permittee is required to provide EPA a written report within five days of the time it became aware of any overflow that is subject to the immediate reporting provision. (See 40 CFR 122.41(l)(6)(i)).

Third Party Notice – The permit requires that the permittee establish a process to notify specified third parties of SSOs that may endanger health due to a likelihood of human exposure; or unanticipated bypass and upset that exceeds any effluent limitation in the permit or that may endanger health due to a likelihood of human exposure. The permittee is required to develop, in consultation with appropriate authorities at the local, county, tribal and/or state level, a plan that describes how, under various overflow (and unanticipated bypass and upset) scenarios, the public, as well as other entities, would be notified of overflows that may endanger health. The plan should identify all overflows that would be reported and to whom, and the specific information that would be reported. The plan should include a description of lines of communication and the identities of responsible officials. (See 40 CFR 122.41(l)(6)).

Record Keeping – The permittee is required to keep records of SSOs. The permittee must retain the reports submitted to EPA and other appropriate reports that could include work orders associated with investigation of system problems related to a SSO, that describes the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the SSO. (See 40 CFR 122.41(j)).

Proper Operation and Maintenance – The permit requires proper operation and maintenance of the collection system. (See 40 CFR 122.41(d) and (e)). SSOs may be indicative of improper operation and maintenance of the collection system. The permittee may consider the development and implementation of a capacity, management, operation, and maintenance (CMOM) program.

The permittee may refer to the Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems (EPA 305-B-05-002). This guide identifies some of the criteria used by EPA inspectors to evaluate a collection system's management, operation, and maintenance program activities. Owners/operators can review their own systems against the checklist (Chapter 3) to reduce the occurrence of sewer overflows and improve or maintain compliance.

D. ENVIRONMENTAL JUSTICE

As part of the permit development process, EPA Region 10 conducted a screening analysis to determine whether this permit action could affect overburdened communities. "Overburdened" communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. 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.

The City of Kamiah WWTP is located within or near a Census block group that is potentially overburdened based on environmental justice indexes for particulate matter, Ozone, air toxics, lead paint, traffic proximity, proximity to superfund sites, underground and storage tanks. These hazards are unlikely to be associated with the discharge from the Kamiah WWTP.

The Census block group near the Kamiah WWTP is also overburdened due to demographics; it is over the state 80th percentile for those older than 65, those with less than a high school education, and those with low income. In order to ensure that individuals near the facility are able to participate meaningfully in the permit process, EPA will work collaboratively with the Tribe to conduct enhanced outreach activities such as posting the draft permit and fact sheet in public places, the Tribe's website, and other media the Tribe feels is necessary to ensure membership are able to participate in the review and comment period.

Regardless of whether a facility is located near a potentially overburdened community, 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/d/2013-10945). 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, etc.

For more information, please visit https://www.epa.gov/environmentaljustice and Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

E. DESIGN CRITERIA

The permit includes design criteria requirements. This provision requires the permittee to compare influent flow and loading to the facility's design flow and loading and prepare a facility plan for maintaining compliance with NPDES permit effluent limits when the flow or loading exceeds 85% of the design criteria values for any two months in a twelve-month period. The design flow is 0.613 mgd; 85% of design flow is 0.521 mgd. This value was exceeded only one time in the past 5 years (0.99 mgd in October 2019). Flow did not exceed 85% of design criteria for any two months in a twelve-month period.

F. PRETREATMENT REQUIREMENTS

The Nez Perce Tribe does not have an approved pretreatment program. Thus, EPA is the Approval Authority for POTWs located on tribal land; and since the City of Kamiah does not have an approved pretreatment program per 40 CFR 403.8, EPA is also the Control Authority for industrial users that might introduce pollutants into the City of Kamiah WWTP.

The Permittee may not authorize discharges which may violate the national specific prohibitions of the General Pretreatment Program under 40 CFR 403.5(b).

Although, not a permit requirement, the Permittee may wish to consider developing the legal authority enforceable in Federal, State, or local courts which authorizes or enables the POTW to apply and to enforce the requirement of CWA §§ 307 (b) and (c) and 402(b)(8), as described in 40 CFR 403.8(f)(1). Where the POTW is a municipality, legal authority is typically through a sewer use ordinance, which is usually part of the city or county code. EPA has a Model Pretreatment Ordinance for use by municipalities operating POTWs that are required to develop pretreatment programs to regulate industrial discharges to their systems (EPA, 2007). The model ordinance should also be useful for communities with POTWs that are not required to implement a pretreatment program in drafting local ordinances to control nondomestic dischargers within their jurisdictions.

G. STANDARD PERMIT PROVISIONS

Permit Parts III., IV. and V. contain standard regulatory language that must be included in all NPDES permits. The standard regulatory language covers requirements such as monitoring, recording, and reporting requirements, compliance responsibilities, and other general requirements.

VI. OTHER LEGAL REQUIREMENTS

A. ENDANGERED SPECIES ACT

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.

A review of the threatened and endangered species located in Idaho finds that bull trout (*Salvelinus confluentus*), Snake River fall-run Chinook salmon (*Oncorhynchus tshawytscha*), and Snake River Basin steelhead (*Oncorhynchus mykiss*) are threatened and have the potential to be impacted by the discharge of the Kamiah WWTP. Based on the following considerations EPA concludes that this permit has *no effect* on endangered or threatened species under the jurisdiction of NOAA or USFWS.

Bull Trout

1. High dilution ratios between the facility and the Clearwater River.
2. Low overall flows: the design flow is low at 0.613 mgd and the average flow for the past 5 years is 0.163 mgd.

3. There is no reasonable potential to violate the water quality standard for pH, ammonia, or temperature.
4. Compliance with water quality standards for pH and bacteria at the point of discharge.
5. This permit requires compliance with the State of Idaho Surface WQS and meets Federal Secondary Treatment Standards that protect aquatic organisms including threatened and endangered species.
6. Toxic chemicals that are identified as significant stressors upon fish populations are persistent and accumulative pollutants such as mercury, dichlorodiphenyltrichloroethane (DDTs), polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and polycyclic aromatic hydrocarbons (PAHs). There is not any evidence to suggest that the facility is currently discharging these pollutants in concentrations that would impact aquatic life.
7. The USFWS *Mid-Columbia Recovery Unit Implementation Plan for Bull Trout* (USFWS 2015) identified causes of the bull trout listing. They are operation and maintenance of dams and other diversion structures, forest management practices, livestock grazing, agriculture, agricultural diversions, road construction and maintenance, mining, and introduction of nonnative species. No sewage treatment plant is identified as a contributing factor to the decline in bull trout.

Steelhead and Chinook Salmon (Snake River fall run)

Similar factors that contribute to bull trout declines have likely also caused the decline of steelhead and Chinook salmon. The National Marine Fisheries Service ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon & Snake River Basin Steelhead (NMFS 2017) identifies the major causes of salmon and steelhead declines as historical overharvest, dam operations/change in flow regime, natural resource extraction (logging, mining, irrigation), and agricultural practices. The no effect findings for steelhead and Chinook salmon are based on the same reasons as those listed for bull trout, above.

B. 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 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). A review of the EFH documents shows that the area of discharge is EFH for coho salmon and Chinook salmon (Snake River fall run). For the same reasons provided above, EPA concludes that the issuance of this permit will *not have an adverse effect* on EFH.

C. CWA § 401 CERTIFICATION,

Section 401 of the Clean Water Act (CWA) requires the State in which the discharge originates to certify that the discharge complies with the appropriate sections of the CWA, as well as any appropriate requirements of State law. See 33 USC § 1341(d). This includes water quality standards that have been approved for Tribes with TAS. Since this facility discharges to tribal waters and the Tribe has not been approved for TAS for

purposes of the Clean Water Act, EPA is the certifying authority. EPA is taking comment on EPA's intent to certify this permit.

D. ANTIDEGRADATION

EPA has completed an antidegradation review which is shown in Appendix F.

E. PERMIT EXPIRATION

The permit will expire five years from the effective date.

VII. REFERENCES

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US Fish and Wildlife Service. 2015. *Mid-Columbia Recovery Unit Implementation Plan for Bull Trout*

Water Pollution Control Federation. 1976. *Chlorination of Wastewater*. Water Pollution Control Federation, Subcommittee on Chlorination of Wastewater. Washington, D.C.

Appendix A. Facility Information

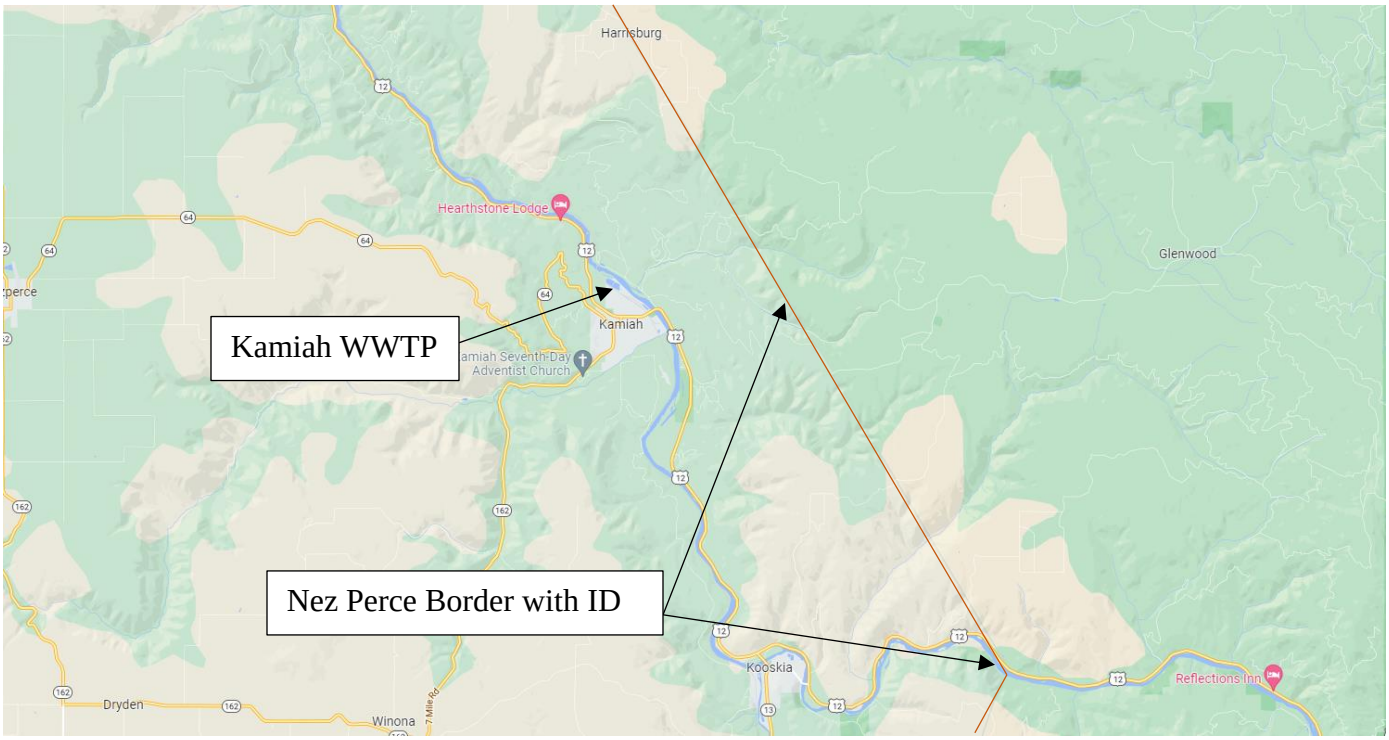
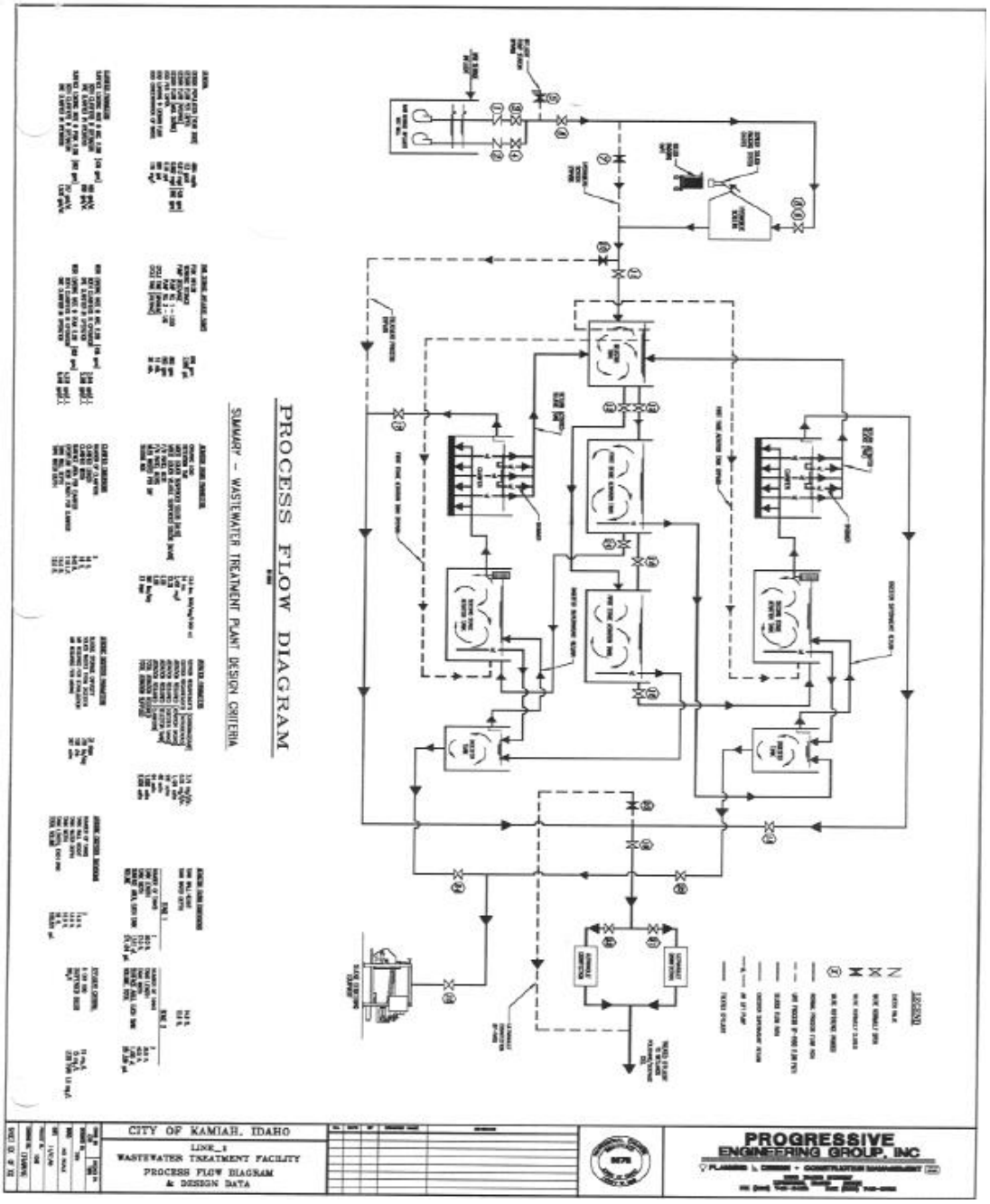


Figure A-2: Process Flow Diagram



Appendix B. Water Quality Data

A. Treatment Plant Effluent Data

Parameter	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, percent removal	E. coli, MTEC-MF	E. coli, MTEC-MF	Flow	Flow	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	Oxygen, dissolved [DO]	Oxygen, dissolved [DO]	pH	pH	Phosphorus, total [as P]	Phosphorus, total [as P]	Solids, suspended percent removal	Solids, total suspended	Solids, total suspended	Temperature	Temperature
Monitoring Location	Effluent Gross	Effluent Gross	Percent Removal	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Percent Removal	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross
Statistical Base	MO AVG	MO AVG	MO AV MN	DAILY MX	MO AVG	DAILY MX	MO AVG	DAILY MX	MO AVG	MO AVG	MO MIN	INST MAX	INST MIN	DAILY MX	MO AVG	MO AV MN	MO AVG	MO AVG	DAILY MX	MO AVG
Limit Units	mg/L	lb/Day	Percent	Number per 100 ml	Number per 100 ml	Million Gallons per Day	Million Gallons per Day	mg/L	mg/L	mg/L	mg/L	Standard Units	Standard Units	mg/L	mg/L	Percent	mg/L	lb/Day	°C	°C
Current Limit	30	18	85% min	281	126	Report	Report	Report	Report	Report	Report	6.5-9.0	6.5-9.0	Report	Report	85% min	30	18	Report	Report
04/30/2017	1.7	3.4	98.7	4.1	1.5	0.356	0.241	0.26	0.22	7.9	7.3	7.5	6.7	9.6	9.6	99.3	1.5	3	14.6	13.3
05/31/2017	1.7	2.6	99.4	1	1	0.277	0.183	0.22	0.16	6.9	6.4	6.8	6.7	9.6	9.6	99.3	2	3	18.3	16.1
06/30/2017	1.7	1.9	99.1	7.2	3.2	0.165	0.136	0.3	0.27	5.7	5.2	7.4	6.6	9.61	9.61	99	3	3.4	21.5	19.1
07/31/2017	1.5	1.4	99.3	8.3	2.1	0.141	0.109	0.26	0.21	5	4.2	7.4	6.7	0.57	0.57	98.8	2	1.8	22.6	21.9
08/31/2017	1.2	1.1	99.6	10.6	3.9	0.132	0.109	0.22	0.22	4.3	2.3	7.2	6.6	0.57	0.57	99	2.6	2.4	23.4	21.9
09/30/2017	2.6	2.5	99.3	10.5	1.6	0.143	0.113	0.22	0.22	4.6	2.6	6.8	6.7	0.57	0.57	96.9	2.4	2.3	22.4	20.7
10/31/2017	1	0.97	99.6	9.7	2.3	0.143	0.116	0.29	0.29	6.6	6.1	7.1	6.6	9.5	9.5	97	3.5	3.4	17.9	15.5
11/30/2017	1	1.2	99.7	4.1	1.6	0.188	0.14	0.22	0.22	8.1	6.9	7	6.6	0.57	0.57	98.3	3.2	3.7	15.1	13.5
12/31/2017	2	2.4	99.4	1	1	0.315	0.141	0.29	0.29	8.5	7.5	7.3	6.7	9.5	9.5	97.2	3.5	4.1	12.8	11.2
01/31/2018	1.6	3.8	99.4	5.2	1.7	0.449	0.285	0.31	0.31	9	8.3	7.3	7	5.1	5.1	99	1.8	4.3	12.6	12
02/28/2018	1.8	3.2	99.3	4	1.3	0.318	0.216	0.31	0.31	8.9	8.5	7.6	7.2	5.1	5.1	99.2	1.5	2.7	12.2	10.5
03/31/2018	1.2	1.9	99.6	1	1	0.33	0.193	0.31	0.31	8.3	7.7	7.8	7	5.1	5.1	98	4.2	6.8	13	11.9
04/30/2018	1	2.3	99.5	1	1	0.455	0.273	0.29	0.29	7.7	7.4	7.5	6.8	11.3	11.3	98.5	3.3	7.5	14.6	13.3
05/31/2018	1.2	1.6	99.6	8.4	1.5	0.178	0.157	0.29	0.29	6.6	5.3	7	6.8	11.3	11.3	98.3	4.8	6.3	19.3	17.4
06/30/2018	1	1	99.8	3	1.4	0.146	0.121	0.29	0.29	5.9	4.9	7	6.7	11.3	11.3	98.6	5.3	5.3	21.2	19.2
07/31/2018	1	0.89	99.7	7.2	1.5	0.127	0.107	0.31	0.31	5	4.1	7.1	6.8	13.6	13.6	96	3	2.7	22.5	21
08/31/2018	1	0.88	99.7	8.4	3.4	0.143	0.106	0.31	0.31	4.7	3.8	7.1	6.6	13.6	13.6	98.4	4.8	4.2	23	22.2
09/30/2018	1	0.8	99.7	10.8	3.5	0.133	0.1	0.31	0.31	5.2	3.7	7.4	6.6	13.6	13.6	98.5	4.3	3.3	21.6	19.9
10/31/2018	1.1	0.94	99.7	4.1	1.3	0.154	0.107	0.31	0.31	7	6.7	7.2	6.7	11.37	11.37	94.5	7.6	6.8	21.4	18
11/30/2018	3	3.2	99.2	12.7	3.3	0.18	0.126	0.31	0.31	6.5	4.5	7.5	6.8	11.37	11.37	97.7	6.8	7.1	20.4	13.8
12/31/2018	1.5	1.6	99.6	13.1	5.2	0.145	0.125	0.31	0.31	7.6	6.5	7.1	6.7	11.37	11.37	99.4	2	2.1	13.6	12
01/31/2019	1.2	1.3	99.7	1	1	0.164	0.133	0.25	0.25	7.9	7.5	6.9	6.6	1.97	1.97	98.6	2.8	3.1	14.3	11.2
02/28/2019	1	1.9	99.7	9.7	1.8	0.292	0.225	0.25	0.25	8	7.5	7.1	6.8	1.97	1.97	96.3	4.8	9	13.7	11
03/31/2019	1.1	1.9	99.6	1	1	0.266	0.208	0.25	0.25	8	7.5	7.3	6.8	1.97	1.97	99.4	3.8	6.6	14.7	11.8
04/30/2019	1.1	4.2	99.5	47.3	4.1	1.025	0.458	0.25	0.25	7.7	7.1	7.7	6.9	1.97	1.97	99.1	2.3	8.8	13.7	12.3
05/31/2019	1	1.7	99.6	2	1.1	0.357	0.205	0.19	0.19	7.3	6.3	7.5	6.9	6.3	6.3	99	1.6	2.7	18.1	16.9
06/30/2019	1.2	1.3	99.6	1	1	0.201	0.131	0.19	0.19	5.7	5	7.1	6.8	6.3	6.3	99.5	3	3.3	23.3	19
07/31/2019	1	0.86	99.7	2	1.1	0.121	0.103	0.22	0.22	4.6	4.1	7	6.6	0.71	0.71	99.5	1.5	1.3	23	21.9
08/31/2019	1	0.87	99.8	5.2	1.4	0.134	0.105	0.22	0.22	4.2	3.2	6.9	6.5	0.71	0.71	99.2	2.4	2.1	25	23
09/30/2019	1	0.86	99.7	6.3	2.2	0.13	0.103	0.22	0.22	5.3	4.3	7	6.6	0.71	0.71	98.1	3.5	3	22.8	20.8
10/31/2019	1	0.82	99.6	1	1	0.11	0.99	0.22	0.22	5.3	4.1	7.1	6.6	0.71	0.71	95.1	6	5	19	16.6
11/30/2019	1.9	1.6	99.2	8.8	3.4	0.129	0.103	0.14	0.14	5	4.2	7	6.7	1.21	1.21	91	8.3	7.1	15.8	12.9
12/31/2019	1.6	1.5	99.6	5.2	1.6	0.135	0.112	0.14	0.14	7	6.3	7.2	6.6	1.21	1.21	99.2	2	1.9	15.3	12
01/31/2020	1.4	1.6	99.5	14.4	2.7	0.207	0.135	0.2	0.2	7.8	7.3	6.9	6.6	2.94	2.94	97.6	5.2	5.9	12.7	10.9
02/29/2020	1	2.2	99.6	3.1	1.4	0.576	0.261	0.2	0.2	8	7.7	7.3	6.8	2.94	2.94	97.3	3	6.5	14.1	12.2
03/31/2020	1	1	99.7	1	1	0.181	0.12	0.2	0.2	6.4	6.2	7.2	6.7	2.94	2.94	99.6	1.3	1.3	19.4	12.5
04/30/2020	1	1.2	99.6	1	1	0.173	0.139	0.14	0.14	5.1	4.5	7.3	6.7	3.64	3.64	99.3	1.8	2.1	20.5	12.4
05/31/2020	1.3	1.8	99.4	2	1.1	0.22	0.166	0.14	0.14	6	5.2	7.3	6.5	3.6	3.6	98	3	4.2	20.3	17
06/30/2020	1	1.1	99.7	1	1	0.177	0.129	0.14	0.14	4.6	3.9	7.1	6.6	3.64	3.64	99.4	1.3	1.4	20.3	17.8
07/31/2020	1	0.95	99.7	3.1	1.6	0.147	0.114	0.24	0.24	4.9	3.9	6.9	6.5	2.42	2.42	98.8	4.6	4.4	24.2	19.5
08/31/2020	1.8	1.5	99.6	2	1.1	0.131	0.102	0.24	0.24	4.5	3.7	7.2	6.6	2.42	2.42	99.6	1.3	1.1	23.3	22.9
09/30/2020	1.3	1.2	99.7	10.5	1.6	0.134	0.107	0.24	0.24	4.8	4.1	7	6.6	2.42	2.42	99.2	2.3	2.1	21.4	19.8
10/31/2020	1.1	0.95	99.5	1	1	0.143	0.104	0.17	0.17	4.1	2.5	7.1	6.6	0.46	0.46	99	2.2	1.9	20.5	17.6
11/30/2020	1.3	1.2	99.7	1	1	0.125	0.109	0.17	0.17	6.2	4.5	7.1	6.6	0.46	0.46	99	2	1.8	18.5	14.6
12/31/2020	1.7	1.5	99.5	3	1.4	0.14	0.104	0.17	0.17	5.5	3.7	7.1	6.5	0.14	0.14	98.5	5.2	4.5	20	12.5
01/31/2021	1.9	1.8	99.5	17.7	5.3	0.15	0.114	0.15	0.15	6.8	4.5	7.1	6.7	1.25	1.25	94.9	18.3	17.4	20.1	11.9
02/28/2021	3.4	4.2	99.2	12.7	2.9	0.276	0.147	0.15	0.15	5.7	4.9	7.2	6.8	1.25	1.25	92.8	26	31.9	13	10.5
03/31/2021	1.7	2.4	99.2	2	1.3	0.27	0.161	0.15	0.15	6.5	4.9	7.3	6.7	1.25	1.25	93.7	13	17.5	14.8	12
04/30/2021	1.7	1.8	99.3	16.6	5.2	0.149	0.127	0.33	0.33	6.3	5.8	7.1	6.6	3.4	3.4	96.2	9.6	9.5	17.7	14.4
05/31/2021	1.5	1.5	99.3	21.8	2.2	0.138	0.116	0.33	0.33	5.7	5	7.1	6.5	3.8	3.8	96.4	8.3	8	21.8	15.5
06/30/2021	1.8	1.7	99.4	1	1	0.143	0.113	0.29	0.29	5.2	4.9	7.3	6.5	1.37	1.37	95.3	7	6.6	24	20.2
07/31/2021	1	1	99.3	2	1.3	0.151	0.12	0.29	0.29	4.9	4.4	7.2	6.7	1.37	1.37	94.2	8.8	8.8	27	22.9
08/31/2021	1.3	1.3	99.5	3.1	1.3	0.186	0.121	0.29	0.29	4.9	3.4	7.1	6.6	1.37	1.37	97.7	6.8	6.9	25.3	23
09/30/2021	1.5	1.4	99.1	1	1	0.141	0.114	0.141	0.141	4.9	4.2	7.4	6.6	1.71	1.71	93	8.3	7.9	23.1	20.2
10/31/2021	2.3	2.5	98	20	3.1	0.158	0.13	1.49	1.49	4.5	4.1	7.3	6.6	1.71	1.71	89.8	15.3	16.6	19.8	17.3
11/30/2021	2.9	3.7	94	23.5	5.7	0.186	0.152	1.49	1.49	6.8	5.1	7.1	6.5	1.71	1.71	86.3	17.3	21.9	16.6	14.3
12/31/2021	2.6	4	97	20	5.6	0.267	0.186	0.26	0.26	7.5	6.8	7.2	6.7	1.37	1.37	94.3	6.6	10.2	14.1	12
01/31/2022	1.3	1.8	99	3.1	1.3	0.242	0.17	0.17	0.17	8.1	7.7	7.1	6.7	2.25	2.25	98.1	3.3	5	11.4	9.7
02/28/2022	1	1.5	99.3	25.9	1.9	0.237	0.176	0.17	0.17	8.1	7.7	7.1	6.8	2.25	2.25	98	6.8	10	11	9.3
Average	1.4525	1.7829	99.3305	7.4475	2.0339	0.2158	0.1630	0.2785	0.2754	6.2678	5.3831	7.1864	6.6831	4.3054	4.3054	97.3034	5.1475	6.0254	18.6034	15.8763
Minimum	1	0.8	94	1	1	0.11	0.1	0.14	0.14	4.1	2.3	6.8	6.5	0.14	0.14	86.3	1.3	1.1	11	9.3
Maximum	3.4	4.2	99.8	47.3	5.7	1.025	0.99	1.49	1.49	9	8.5	7.8	7.2	13.6	13.6	99.6	26	31.9	27	23
Count	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
Std. Dev.	0.5500	0.8982	0.8147	8.2311	1.3056	0.1404	0.1235	0.2325	0.2332	1.3728	1.5921	0.2045	0.1344	4.1007	4.1007	2.6260	4.6016	5.4032	4.1386	4.1012
Coef. Var.	0.3786	0.5038	0.0082	1.1052	0.6419	0.6509	0.7574	0.8350	0.8465	0.2190	0.2958	0.0285	0.0201	0.9525	0.9525	0.0270	0.8940	0.8967	0.2225	0.2583
95%	1.4708	1.8127	99.3576	7.7209	2.0773	0.2204	0.1671	0.2862	0.2832	6.3134	5.4359	7.1932	6.6875	4.4417	4.4417	97.3906	5.3003	6.2049	18.7409	16.0125
5%	1.4343	1.7530	99.3034	7.1740	1.9905	0.2111	0.1589	0.2708	0.2677	6.2222	5.3302	7.1796	6.6786	4.1692	4.1692	97.2162	4.9946	5.8459	18.4659	15.7400
90%	1.4679	1.8079	99.3532	7.6770	2.0703	0.2197	0.1664	0.2850	0.2819	6.3061	5.4274	7.1921	6.6868	4.4198	4.4198	97.3766	5.2758	6.1761	18.7188	15.9906

Parameter	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	E. coli, MTEC-MF	Solids, total suspend	Solids, total suspended
Monitoring Location	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross
Statistical Base	WKLY AVG	WKLY AVG	WKLY AVG	WKLY AVG	WKLY AVG
Limit Units	Milligrams per Liter	Pounds per Day	Number per 100 Milliliters	Milligrams per Liter	Pounds per Day
Current Limit	45	28	126	45	28
04/30/2017	2	3.9	1.5	2	4.1
05/31/2017	2.6	3.2	1	2	4
06/30/2017	2.7	2.4	3.2	6	7.8
07/31/2017	2.7	2.6	2.1	2	2
08/31/2017	2	2.2	3.9	5	4.4
09/30/2017	5.4	4.7	1.6	4	3.5
10/31/2017	1	1.2	2.3	6	5.4
11/30/2017	1	1.6	1.6	9	9.5
12/31/2017	3	2.1	1	7	7.1
01/31/2018	2	4.7	1.7	3	5.9
02/28/2018	2	5.3	1.3	3	7.9
03/31/2018	1.6	2.9	1	10	17.8
04/30/2018	1	3.1	1	8	12.3
05/31/2018	1.7	2.4	1.5	12	15.2
06/30/2018	1	1.2	1.4	13	12.4
07/31/2018	1	0.98	1.5	4	3.5
08/31/2018	1	0.88	3.4	16	13.2
09/30/2018	1	1	3.5	9	6.8
10/31/2018	1.5	1.7	1.3	11	12.6
11/30/2018	8	8.4	3.3	10	13.6
12/31/2018	3	3.2	5.2	4	3.9
01/31/2019	1.8	1.7	1	7	7.7
02/28/2019	1	2.3	1.8	8	16.4
03/31/2019	1.3	2	1	10	17
04/30/2019	1.5	8.2	4.1	5	18.3
05/31/2019	1	1.9	1.1	4	7.7
06/30/2019	1.6	1.1	1	4	4.1
07/31/2019	1	0.88	1.1	3	2.6
08/31/2019	1	1.1	1.4	4	3.4
09/30/2019	1	0.83	2.2	5	4.2
10/31/2019	1.2	1.1	1	17	13.2
11/30/2019	3	2.5	3.4	17	14
12/31/2019	2.4	2	1.6	4	3.4
01/31/2020	2.2	2	2.7	13	15.5
02/29/2020	1	3	1.4	7	12
03/31/2020	1	1.2	1	2	2
04/30/2020	1	1.4	1	5	5.6
05/31/2020	2	2.9	1.1	5	7.1
06/30/2020	1	1.2	1	2	1.7
07/31/2020	1	1.1	1.6	9	8.9
08/31/2020	4	3.5	1.1	2	1.7
09/30/2020	2	1.8	1.6	4	3.5
10/31/2020	1.4	1	1	3	3.1
11/30/2020	2	1.6	1	3	2.8
12/31/2020	3	2.4	1.4	10	8.3
01/31/2021	3.7	3.9	5.3	26	27.5
02/28/2021	5	4.6	2.9	90	78
03/31/2021	2.8	3.8	1.3	22	27.3
04/30/2021	3	3.7	5.2	15	18.6
05/31/2021	2	2	2.2	17	17.3
06/30/2021	3	2.6	1	20	19.2
07/31/2021	1	1.3	1.3	17	15.6
08/31/2021	2	2.1	1.3	9	9.8
09/30/2021	2	1.8	1	20	17.5
10/31/2021	5	5.8	3.1	27.4	24
11/30/2021	5.4	6.4	5.7	30	37.3
12/31/2021	6	8.6	5.6	16	20.4
01/31/2022	2	2.4	1.3	4	7.1
02/28/2022	1	1.7	1.9	18	29
Average	2.2119	2.6961	2.0339	10.6847	11.9610
Minimum	1	0.83	1	2	1.7
Maximum	8	8.6	5.7	90	78
Count	59	59	59	59	59
Std. Dev.	1.4548	1.8199	1.3056	12.3855	11.5611
Coef. Var.	0.6577	0.6750	0.6419	1.1592	0.9666
95%	2.2602	2.7566	2.0773	11.0962	12.3451
5%	2.1635	2.6356	1.9905	10.2733	11.5770
90%	2.2524	2.7468	2.0703	11.0301	12.2834

Appendix C. Reasonable Potential and WQBEL Formulae

A. Reasonable Potential Analysis

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, 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 WQBEL must be included in the permit.

1. Mass Balance

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

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

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:

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

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

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

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,

$$C_d = C_e \qquad \textit{Equation 4}$$

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

$$D = \frac{Q_e + Q_u \times \%MZ}{Q_e} \qquad \textit{Equation 5}$$

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

$$C_d = \frac{C_e - C_u}{D} + C_u \qquad \textit{Equation 6}$$

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:

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

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.

2. Maximum Projected Effluent Concentration

When determining the projected receiving water concentration downstream of the effluent discharge, EPA's Technical Support Document for Water Quality-based Toxics Controls (TSD, 1991) recommends using the maximum projected effluent concentration \

(Ce) in the mass balance calculation (see equation 3, page C-5). To determine the maximum projected effluent concentration (Ce) 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 (Ce) can be calculated using the following equations:

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

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

where,

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

confidence level = 99% = 0.99

and

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

Where,

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

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

$$C_e = (RPM)(MRC) \qquad \textit{Equation 10}$$

where MRC = Maximum Reported Concentration

3. 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.

4. Reasonable Potential

   The discharge has reasonable potential to cause or contribute to an exceedance of water quality criteria if the maximum projected concentration of the pollutant at the edge of the mixing zone exceeds the most stringent criterion for that pollutant.

B. WQBEL Calculations

1. 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. 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 6 is rearranged to solve for the WLA, becoming:

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

   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, 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 __. As discussed in Appendix ___, the criteria translator (CT) is equal to the conversion factor, because site-specific translators are not available for this discharge.

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

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 EPA's *Technical Support Document for Water Quality-based Toxics Control* (TSD):

$$LTA_a = WLA_a \times e^{(0.5\sigma^2 - z\,\sigma)} \qquad \textit{Equation 13}$$

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

where,

σ^2	=	$\ln(CV^2 + 1)$
Z_{99}	=	2.326 (z-score for the 99th percentile probability basis)
CV	=	coefficient of variation (standard deviation ÷ mean)
σ_4^2	=	$\ln(CV^2/4 + 1)$

For ammonia, because the chronic criterion is based on a 30-day averaging period, the Chronic Long Term Average (LTAc) is calculated as follows:

$$LTA_c = WLA_c \times e^{(0.5\sigma_{30}^2 - z\sigma_{30})} \qquad \textit{Equation 15}$$

where,

σ_{30}^2	=	$\ln(CV^2/30 + 1)$

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

2. Derive the maximum daily and average monthly effluent limits

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

$$MDL = LTA \times e^{(z_m\sigma - 0.5\sigma^2)} \qquad \textit{Equation 16}$$

$$AML = LTA \times e^{(z_a\sigma_n - 0.5\sigma_n^2)} \qquad \textit{Equation 17}$$

where σ, and σ² are defined as they are for the LTA equations above, and,

σ_n^2	=	$\ln(CV^2/n + 1$
z_a	=	1.645 (z-score for the 95th percentile probability basis)

z_m	=	2.326 (z-score for the 99th percentile probability basis)
n	=	number of sampling events required per month. With the exception of ammonia, if the AML is based on the LTA_c, i.e., $LTA_{minimum} = LTA_c$), the value of ‘‘n’’ should is set at a minimum of 4. For ammonia, In the case of ammonia, if the AML is based on the LTA_c, i.e., $LTA_{minimum} = LTA_c$), the value of ‘‘n’’ should is set at a minimum of 30.

C. Critical Low Flow Conditions

The low flow conditions of a water body are used to determine WQBELs. In general, Idaho’s WQSs require criteria be evaluated at the following low flow receiving water conditions (See IDAPA 58.01.02.210.03) as defined below:

Acute aquatic life	1Q10 or 1B3
Chronic aquatic life	7Q10 or 4B3
Non-carcinogenic human health criteria	30Q5
Carcinogenic human health criteria	harmonic mean flow
Ammonia	30B3 or 30Q10

1. The 1Q10 represents the lowest one day flow with an average recurrence frequency of once in 10 years.
2. The 1B3 is biologically based and indicates an allowable exceedance of once every 3 years.
3. The 7Q10 represents lowest average 7 consecutive day flow with an average recurrence frequency of once in 10 years.
4. The 4B3 is biologically based and indicates an allowable exceedance for 4 consecutive days once every 3 years.
5. The 30Q5 represents the lowest average 30 consecutive day flow with an average recurrence frequency of once in 5 years.
6. The 30Q10 represents the lowest average 30 consecutive day flow with an average recurrence frequency of once in 10 years.
7. The harmonic mean is a long-term mean flow value calculated by dividing the number of daily flow measurements by the sum of the reciprocals of the flows.

Appendix D. Reasonable Potential and WQBEL Calculations

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

Facility Name	City of Kamiah WWTP
Facility Flow (mgd)	0.61
Facility Flow (cfs)	0.95

Critical River Flows (CFS)		(IDAPA 58.01.02 03. b)	Annual Crit. Flows
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)		**1Q10**	671
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)		**7Q10 or 4B3**	839
Ammonia		**30B3 or 30Q10/30Q5** (seasonal)	1147
Human Health - Non-Carcinogen		**Harmonic Mean Flow**	3123
Human Health - carcinogen		**Harmonic Mean Flow**	3123
	DF at defined percent of river flow allow	0%	**1.0**
	DF at defined percent of river flow allow	0%	**1.0**

Receiving Water Data		Notes:	Annual Crit. Flows
Hardness, as mg/L $CaCO_3$	= 100 mg/L	5th % at critical flows	
Temperature, °C	Temperature, °C	95th percentile	21.5
pH, S.U.	pH, S.U.	95th percentile	7.89

Pollutants of Concern			**AMMONIA,** default: cold water, fish early life stages present
Effluent Data	**Number of Samples in Data Set (n)**		59
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)		0.8464954
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C_e)		286.2
	Calculated 50th % Effluent Conc. (when n>10), Human Health Only		
Receiving Water Data	**90th Percentile Conc., µg/L - (C_u)**		
	Geometric Mean, µg/L, Human Health Criteria Only		
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	6,891
	Aquatic Life Criteria, µg/L	Chronic	1,808
	Acute:chronic ratio		3.81
	Human Health Water and Organism, µg/L		--
	Human Health, Organism Only, µg/L		--
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute	
		Chronic	
	Carcinogen (Y/N), Human Health Criteria Only		--
Percent River Flow Default Value = **25%**	**Aquatic Life - Acute**	**1Q10**	0%
	Aquatic Life - Chronic	7Q10 or 4B3	
		30B3 or 30Q10/30Q5	0%
	Human Health - Non-Carcinogen	Harmonic Mean	
	Human Health - Carcinogen	Harmonic Mean	
Calculated Dilution Factors (DF) (or enter Modeled DFs)	Aquatic Life - Acute	1Q10	1.0
	Aquatic Life - Chronic	7Q10 or 4B3	
	Aquatic Life - Chronic Ammonia	30B3 or 30Q10/30Q5	1.0
	Human Health - Non-Carcinogen	Harmonic Mean	
	Human Health - Carcinogen	Harmonic Mean	

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2=\ln(CV^2+1)$		0.735
P_n	$=(1\text{-confidence level})^{1/n}$, where confidence level =	**99%**	0.925
Multiplier (TSD p. 57)	$=\exp(z\sigma-0.5\sigma^2)/\exp[\text{normsinv}(P_n)\sigma-0.5\sigma^2]$, where	**99%**	1.9
Statistically projected critical discharge concentration (C_e)			549
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone		Acute	549
(note: for metals, concentration as dissolved using conversion factor as translator)		Chronic	549
Reasonable Potential to exceed Aquatic Life Criteria			**NO**

Appendix E. CWA § 401 Certification

Below is EPA's draft CWA § 401 Certification. EPA is taking comment on EPA's intent to certify this permit as described in Section VI.C.

Clean Water Act (CWA) Section 401 Certification for Discharger Located within Tribal Boundaries

Facility: City of Kamiah Wastewater Treatment Plant

NPDES Permit Number: ID-002800-2

Location: Nez Perce

Receiving Water: The Clearwater River

Facility Location: 1775 Laguna Drive, Kamiah, ID 83563

EPA hereby certifies that the conditions in the National Pollutant Discharge Elimination System (NPDES) permit for the City of Kamiah Wastewater Treatment Plant wastewater treatment plant, are necessary to assure compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA. See CWA Section 401(a)(1), 33 U.S.C. 1341(a)(1); 40 CFR 124.53(e).

The State in which the discharge originates is responsible for issuing the CWA Section 401 certification pursuant to CWA Section 401(a)(1). When a NPDES permit is issued on Tribal Land, the Tribe is the certifying authority where the Tribe has been approved by EPA for Treatment as a State (TAS) pursuant to CWA Section 518(e) and 40 CFR § 131.8. Where a Tribe does not have TAS, EPA is the certifying authority. The Nez Perce Tribe does not have TAS for the reservation. Therefore, EPA is responsible for issuing the CWA Section 401 Certification for this permit.

Daniel D. Opalski

Director

Appendix F. Antidegradation Analysis

The WQS contain an antidegradation policy providing Tier 1, Tier 2, and Tier 3 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 those water bodies where an outstanding resource water has been designated by the legislature, that water quality shall be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03).

EPA is employing a water body by water body approach in conducting the antidegradation analysis. 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 was used to determine support status and the Tier protection. (IDAPA 58.01.02.052.05).

According to the 2022 Integrated Report the Clearwater River in the vicinity of the discharge is designated as 3T waters and the water quality of the river is unassessed. Because of this EPA has no evidence to suggest the river in not fully supporting beneficial uses. Therefore, EPA will provide a Tier 2 antidegradation analysis.

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 this permit, this means determining the permit's effect on water quality based upon the limits for BOD_5, TSS, *E. coli*, total ammonia as nitrogen, and pH in the current and proposed permits. Table E-1 provides a summary of the changes between the current permit limits and the proposed reissued permit limits.

Table E-1: Comparison of Proposed and Current Permit Limits						
Parameters	**Average Monthly Limit**		**Average Weekly Limit**		**Maximum Daily Limit**	
	Draft Permit (2022)	**Current Permit (2011)**	**Draft Permit (2022)**	**Current Permit (2011)**	**Draft Permit (2022)**	**Current Permit (2011)**
E. coli[a,b]	126/100mL	126/100mL	----	126/100mL	281/100mL	281/100mL
Enterococci[a,b]	35/100mL	----	----	----	130/100mL	----

a. Either *E. coli* or *Enterococci* limits must be met and monitored, not both.

b. Bacteria measured as number of organisms per 100mL of water with the monthly average being a geometric mean.

Apart from *E. coli* and Enterococci changes, the proposed permit limits are the same as the existing permit limits. The proposed *Enterococci* limits are a new fecal indicator that may be used as an alternative to *E. coli* for determining compliance with fecal contamination. The proposed *E. coli* limit is consistent with Idaho WQS approved by EPA in February 2022. The bacteria criteria are applied at the end of pipe; thus, water quality standards will be met at the end of pipe and no degradation will occur. Since the effluent limits in the permit will ensure that water quality standards are met at the end of pipe, there will be no adverse change in water quality and no degradation will result from the discharge of these pollutants in the reissued permit and the quality of the receiving water is maintained and protected. Therefore, EPA concludes that the permit complies with the Tier 2 provisions of Idaho's WQS (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06).