



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:

Confederated Tribes of Warm Springs
Wastewater Treatment Plant
Warm Springs, Oregon 97761

Public Comment Start Date: March 1st, 2021

Public Comment Expiration Date: March 31st, 2021

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EPA Proposes to Reissue 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 Confederated Tribes of Warm Springs (hereinafter referred to as the Tribe) wastewater treatment plant to Shitike Creek. 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 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 and biosolids disposal locations
- technical material supporting the conditions in the permit

Clean Water Act Section 401 Tribal Certification

Pursuant to Section 401 of the Clean Water Act (CWA), EPA may not issue a final permit until the State or Tribe (with Treatment as a State) where the discharge originates, has granted or waived 401 certification. The State and/or Tribes must either certify that the Permit complies with State or Tribal water quality standards or waive certification before the final permit is issued. The Confederated Tribes of Warm Springs are approved for Treatment as State (TAS) under the CWA.

EPA is requesting that the Confederated Tribes of Warm Springs certify the permit under Section 401 of the CWA. Comments regarding the certification should be directed to:

The Confederated Tribes of Warm Springs
Warm Springs Natural Resources Department
Attn: Mr. Robert Brunoe
P.O. Box C
Warm Springs, OR 97761

Public Comment

Because of the COVID-19 virus, access to the Region 10 EPA building is limited. Therefore, EPA requests that all comments on the draft permit or requests for a public hearing be submitted via email to earl.james@epa.gov If you are unable to submit comments via email, please call 503-326-2653.

Persons wishing to comment on or request a Public Hearing for the draft permit for this facility may do so 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 submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

After the Public Notice expires, and all comments have been considered, the 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, the 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 Permit, and other information is available on EPA Region 10 website at:

<https://www.epa.gov/npdes-permits/oregon-npdes-permits>

Because of COVID-19 response, there is no public access to the Region 10 EPA buildings at this time. Therefore, EPA cannot make hard copies available for viewing at our offices.

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For technical questions regarding the Permit listed above or this Fact Sheet, contact James Earl at the e-mail or phone number listed above. Services for persons with disabilities are available by contacting Audrey Washington at (206) 553-0523.

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I. 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
BE	Biological evaluation
BOD ₅	Biochemical oxygen demand, five-day
°C	Degrees Celsius
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
HUC	Hydrologic unit code
ICIS	Integrated Compliance Information System
IHS	Indian Health Service
I/I	Infiltration and inflow
lbs/day	Pounds per day
LTA	Long term average
mg/L	Milligrams per liter
mL	Milliliters
ML	Minimum level
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
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and maintenance
POTW	Publicly owned treatment works
QAP	Quality assurance plan
RP	Reasonable potential
RPM	Reasonable potential multiplier
SS	Suspended solids
SSO	Sanitary sewer overflow
s.u.	Standard units
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
WLA	Wasteload allocation
WQBEL	Water quality-based effluent limit
WQS	Water quality standards
WWTP	Wastewater treatment plant

II. 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 #:	OR0032638
Applicant:	Warm Springs Wastewater Treatment Plant The Confederated Tribes of Warm Springs
Type of Ownership	POTW, Tribal
Physical Address:	End of Victory Lane Warm Springs, Oregon 97761
Mailing Address:	Confederated Tribes of Warm Springs PO Box 1196 Warm Springs, Oregon 97761
Facility Contact:	Chico Holliday Water/Wastewater Supervisor 541-460-2707 (c) 541-615-0962 (w) chico.holliday@wstribes.org
Operator Name:	Chico Holliday
Facility Location:	Latitude 44.760939 N Longitude 121.260202 W
Receiving Water	Shitike Creek, The Confederated Tribes of Warm Springs
Facility Outfall	Latitude 44.761912 N Longitude 121.257757 W

B. Permit History

The most recent NPDES permit for the Warm Springs wastewater treatment plant (WWTP) was issued on 3/7/2000, became effective on 4/10/2000, and expired on 4/10/2005. Pursuant to Title 40 Code of Federal Regulations (CFR) 122.6 (b), 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 Warm Springs WWTP is located on the reservation of the Confederated Tribes of Warm Springs. Consistent with the executive order and EPA tribal consultation policies, EPA coordinated with the Tribe during development of the draft permit and is inviting the Tribe to engage in formal tribal consultation.

III. Facility Information

A. Treatment Plant Description

1. Service Area

The Confederated Tribes of Warm Springs owns and operates the Warm Springs WWTP located in Warm Springs, Oregon. The WWTP serves a resident population of approximately 1,500 people and a community consisting of approximately 450 homes and businesses. The WWTP receives residential and commercial domestic wastewater from the Warm Springs Agency Campus area. There are no industrial dischargers to the system and the collection system consists of separate sewer lines. The collection system has no known combined sewers. Appendix A includes a map of the location of the treatment plant and discharge.

2. Treatment Process

The design flow of the facility is 0.87 mgd. The average flow reported from February 2005 to March 2020 is 0.25 MGD. The maximum and minimum facility flows in this time period range from 0.00882 (1/31/2015) to 0.767 MGD (12/21/2015). The WWTP has a treatment capacity maximum flow rate of 0.86 MGD. The treatment process consists of proprietary technology patented by Parkson, the Biolac® long sludge age treatment process. Biolac® is an extended aeration, activated sludge treatment system. The WWTP utilizes a grinder and trash removal screen at the headworks but does not utilize separate primary clarification. The WWTP has parallel secondary treatment trains for aeration and clarification, each capable of treating a maximum combined flow 0.435 MGD. The average flow into the plant is approximately 0.25 mgd, so only one of the treatment trains is routinely used while the other is maintained in a stand-by status. Effluent from the secondary clarifier is disinfected in a UV basin and discharged to Shitike Creek. Wasted sludge from the secondary clarification process is pumped to the aerated solids digester. Treated biosolids are discharged from the digester to the drying beds on a periodic basis. A schematic of the wastewater treatment process and a map showing the location

of the treatment facility and discharge are included in Appendix A. Because the design flow is less than 1 mgd, the facility is considered a minor facility.

3. Outfall Description

The outfall is submerged in Shitike Creek and located near lat/long 44.761912 N, 121.257757 W. Discharge is continuous.

4. Effluent Characterization

To characterize the effluent, EPA evaluated discharge monitoring report (DMR) data, and additional data provided by the Warm Springs WWTP. The effluent quality is summarized in Table 2. Data are provided in Appendix B.

Table 2 Effluent Characterization

Parameter	Minimum	Maximum	Notes
BOD, 5-day, 20 deg. C Apr 1 - Oct 31 Monthly Average	0.4 mg/L 0.7 lbs/day	82.8 mg/L 555 lbs/day	
BOD, 5-day, 20 deg. C Apr 1 - Oct 31 Weekly Average	2.0 mg/L 2.9 lbs/day	270 mg/L 622 lbs/day	
BOD, 5-day, 20 deg. C Nov 1 - Mar 31 Monthly Average	0.3 mg/L 0.6 lbs/day	65.3 mg/L 708 lbs/day	
BOD, 5-day, 20 deg. C Nov 1 - Mar 31 Weekly Average	1.0 mg/L 2.3 lbs/day	90 mg/L 1126 lbs/day	
Solids, total suspended Apr 1 - Oct 31 Monthly Average	1.0 mg/L 1.9 lbs/day	442 mg/L 2280 lbs/day	
Solids, total suspended Apr 1 - Oct 31 Weekly Average	3.3 mg/L 5.8 lbs/day	533 mg/L 3584 lbs/day	
Solids, total suspended Nov 1 - Mar 31 Monthly Average	1.21 mg/L 2.56 lbs/day	334 mg/L 5048 lbs/day	

Solids, total suspended Nov 1 - Mar 31 Weekly Average	1 mg/L 2.56 lbs/day	450 mg/L 1660 lbs/day	
E. coli bacteria Daily Maximum	0.18 #/100 ml	2420 #/100 ml	
E. coli bacteria Monthly Average	0.01 #100/ml	283#100/ml	
Nitrogen, ammonia total [as N] Daily Maximum	0.057 mg/L 0.16 lbs/day	101 mg/L 89.8 lbs/day	
Nitrogen, ammonia total [as N] Monthly Average	0.057 mg/L 0.16 lbs/day	24.9 mg/L 89.8 lbs/day	
Effluent temperature Monthly	0.6 C	28.1 C	
Effluent pH Twice Weekly	6	10.5	

Source: DMR data from 1/31/2005 to 6/30/2020 submitted electronically by permittee.

5. Compliance History

A summary of effluent violations is provided in Table 3 below. The facility has had difficulty meeting permit limits.

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=110055021453>

Table 3. Summary of Effluent Violations (accessed October 2020)

Parameter	Limit	Units	Number of Violations	Number of Instances
BOD, 5-day, 20 deg. C Apr 1 - Oct 31	Monthly Average	mg/L	25	750

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BOD, 5-day, 20 deg. C Apr 1 - Oct 31	Monthly Average	lb/day	9	270
BOD, 5-day, 20 deg. C Apr 1 - Oct 31	Weekly Average	mg/L	28	196
BOD, 5-day, 20 deg. C Apr 1 - Oct 31	Weekly Average	lb/day	10	70
BOD, 5-day, 20 deg. C Nov 1 - Mar 31	Monthly Average	mg/L	1	30
BOD, 5-day, 20 deg. C Nov 1 - Mar 31	Monthly Average	lb/day	9	270
BOD, 5-day, 20 deg. C Nov 1 - Mar 31	Weekly Average	mg/L	2	14
BOD, 5-day, 20 deg. C Nov 1 - Mar 31	Weekly Average	lb/day	4	28
Solids, total suspended Apr 1 - Oct 31	Monthly Average	mg/L	40	1200
Solids, total suspended Apr 1 - Oct 31	Monthly Average	lb/day	14	420
Solids, total suspended Apr 1 - Oct 31	Weekly Average	mg/L	55	385
Solids, total suspended Apr 1 - Oct 31	Weekly Average	lb/day	14	98
Solids, total suspended Nov 1 - Mar 31	Monthly Average	mg/L	8	240
Solids, total suspended Nov 1 - Mar 31	Monthly Average	lb/day	13	390
Solids, total suspended Nov 1 -	Weekly Average	mg/L	6	42

Mar 31				
Solids, total suspended Nov 1 - Mar 31	Weekly Average	lbs/day	6	42
E. coli bacteria	Daily Maximum	#/100 ml	46	46
E. coli bacteria	Monthly Average	#/100 ml	23	690
Nitrogen, ammonia total [as N]	Daily Maximum	mg/L	75	75
Nitrogen, ammonia total [as N]	Daily Maximum	lbs/day	2	2
Nitrogen, ammonia total [as N]	Monthly Average	mg/L	96	2880
Nitrogen, ammonia total [as N]	Monthly Average	lbs/day	55	1650
Effluent pH Twice Weekly	6.5 to 8.5		13	13

Source: DMR data from 1/31/2005 to 6/30/2020 submitted electronically by permittee.

EPA has not conducted an inspection of the facility in conjunction with the permit renewal, however documents relating to current condition and operation of the Warm Springs WWTP were provided to EPA by Indian Health Service (IHS) as part of project documentation for IHS project PO-19-M63 Warm Springs Community Wastewater Treatment Plant Improvements. As part of project scope development, the IHS with assistance from Rural Community Assistance Corp (RCAC) and TSS Consultants, completed detailed inspections and technical reports. The reports encompassed the wastewater treatment process, records review, operation and maintenance, and the collection system. TSS Consultants was hired by the Tribe in 2018 to review current and historical permit compliance for all the water and wastewater systems owned and operated by the Tribe. In a memo to the Tribe dated June 2018, TSS Consultants noted the Warm Springs WWTP is under a 2013 EPA Administrative Order on Consent to provide required documents and corrective action plans for the facility. TSS Consultants also noted the Warm Springs WWTP had numerous discharge violations. At the Tribe’s request, IHS and RCAC conducted a condition assessment and review of discharge monitoring reports (DMRs) in September 2018. Equipment failures were observed in each of the major unit processes. Review of the DMRs found persistent discharge violations for total suspended solids (TSS), biochemical oxygen demand (BOD₅), ammonia, and *E. coli*. In 2019, IHS and the Tribe agreed to cooperatively fund IHS Project PO-19-M63 to provide approximately 2.6 million dollars in rehabilitation and upgrades to the WWTP.

IV. 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 section below. This section summarizes characteristics of the receiving water that impact that analysis.

A. Receiving Water

This facility discharges to Shitike Creek in the City of Warm Springs, Oregon near lat/long 44.761912 N, 121.257757 W. The outfall is located upstream of Shitike Creek's confluence with the Deschutes River at approximately lat/long 44.761636 N, 121.228897 W. The discharge is located approximately 1.5 miles from the Deschutes River which is subject to both Oregon and Tribal water quality standards.

B. Water Quality Standards

1. Overview

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. 40 CFR 122.4(d) requires that the conditions in NPDES permits ensure compliance with the water quality standards of all affected States and Tribes. A State's or Tribe's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each water body is expected to achieve, such as drinking water supply, contact recreation, and aquatic life. The numeric and narrative water quality criteria are the criteria deemed necessary 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 Confederated Tribes of Warm Springs received treatment in a manner similar to a state (TAS) status for administering water quality standards (WQS) over Shitike Creek and the portions of the Deschutes River that lie within the boundaries of the Confederated Tribes of Warm Springs Reservation. These waters are referred to as "Reservation TAS Waters".

The facility is located within the exterior boundaries of the Confederated Tribes of Warm Springs Reservation and discharges to Reservation TAS waters. Oregon State waters are located downstream of the point of discharge. EPA used the Reservation TAS water quality standards in developing permit conditions and effluent limitations. EPA also considered Oregon water quality standards because Oregon State waters are located approximately 1.5 river miles downstream. This will ensure that the permit conditions are protective of the downstream uses.

The current applicable water quality standards were compared between the Confederated Tribes of Warm Springs Reservation and the State of Oregon. For all pollutants of concern, the water quality standards for Confederated Tribes of Warm Springs Reservation were either equivalent to or more stringent than the State of Oregon water quality basin specific standards with the exception of the ammonia acute criteria for pH of 8.5 and temperature of 21 C. Current State of Oregon water quality standards Table 30(a) gives an acute criterion of 1.4 mg/L total ammonia nitrogen vs. 1.9 mg/L total ammonia nitrogen given by the current Tribal standard. This difference does not impact the proposed limits, due to the limiting long-term average (LTA)

being used to calculate the proposed limits is based on the Tribal ammonia chronic criteria, which is 0.26 mg/L total ammonia nitrogen vs. 0.33 mg/L given by current State of Oregon water quality standards Table 30(c).

2. Designated Beneficial Uses

This facility discharges to Shitike Creek in the Deschutes Basin downstream of the Pelton Dam (HUC 17070306). At the point of discharge, Shitike Creek is protected for the following designated uses according to Table 1: Beneficial Uses for the Deschutes, Clackamas, and Santiam River Basins on the Reservation found in the Confederated Tribes of Warm Springs Reservation water quality standards.

- Public and private domestic water supply
- Industrial water supply
- Irrigation
- Livestock watering
- Anadromous fish passage
- Salmonid fish rearing
- Salmonid fish spawning
- Resident fish and aquatic life
- Wildlife and fishing
- Boating/rafting
- Water contact recreation
- Aesthetic quality
- Cultural and religious practices

C. Water Quality

The water quality for the receiving water is summarized in Table 4.

Table 4. Receiving Water Quality Data

Parameter	Units	Percentile	Value
Temperature	°C	95 th	21.2
pH	Standard units	5 th – 95 th	7.0/8.51

Source:
 EPA water quality database, Water Quality eXchange, accessed October 2020.
 Data date range 2010 to 2017.
 Data collected by permittee 2010-2017
<https://www.waterqualitydata.us/portal/#within=10&lat=44.762222&long=-121.256667&huc=17070306&providers=STORET&mimeType=csv>

D. Water Quality Limited Waters

Shitike Creek is entirely under the jurisdiction of the Tribe and is not currently listed by the Tribe as a CWA section 303(D) impaired water for any parameter.

E. Low Flow Conditions

Critical low flows* for the receiving water are summarized in Table 5. Critical Flows in Receiving Water. Low flows were calculated with USGS Surface Water Toolbox software using Shitike Creek streamflow data from USGS station 14093000 downstream of the discharge.

Table 5. Critical Flows in Receiving Water

Flows	Annual Flow (cfs)
1Q10	29.0
7Q10	33.9
30Q10	37.3
30Q5	40.4
Harmonic Mean	80.1

*Low flows used in calculations are shown in Appendix D.

V. Effluent Limitations and Monitoring

Table 6 below presents the existing effluent limits and monitoring requirements in the Warm Springs WWTP permit.

Table 7 below presents the proposed effluent limits and monitoring requirements in the draft proposed permit.

Table 6. Existing Permit - Effluent Limits and Monitoring Requirements

Parameter	Units	Effluent Limitations			Monitoring Requirements		
		Average Monthly	Average Weekly	Maximum Daily	Sample Location	Sample Frequency	Sample Type
Parameters with Effluent Limits							
Biochemical Oxygen Demand (BOD ₅) April 1 - October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite
	lbs/day	73	109	--			Calculation ¹
Biochemical Oxygen Demand (BOD ₅) November 1 - March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite
	lbs/day	218	327	--			Calculation ¹
Biochemical Oxygen Demand (BOD ₅) Percent Removal	%	85% (minimum)	--	--	--	1/month	Calculation ²
Total Suspended Solids (TSS) April 1 - October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite
	lbs/day	73	109	--			Calculation ¹
Total Suspended Solids (TSS) November 1 - March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite
	lbs/day	218	327	--			Calculation ¹
TSS Percent Removal	%	85 (minimum)	--	--	--	1/month	Calculation ²
<i>E. coli</i> ³	CFU/ 100 ml	126	--	406 (instant. max) ⁴	Effluent	5/month	Grab
Total Ammonia (as N)	mg/L	2.4	--	6.8 ⁴	Effluent	1/month	24-hour composite
	lbs/day	17.4	--	49.3			Calculation ¹
pH	std units	Between 6.5 – 8.5			Effluent	2/week ⁵	Grab
Temperature	°C	--	Report	Report	Effluent	1/month	Grab

Table 7. Draft Permit - Effluent Limits and Monitoring Requirements

Parameter	Units	Effluent Limitations			Monitoring Requirements			
		Average Monthly	Average Weekly	Maximum Daily	Sample Location	Sample Frequency	Sample Type	
Parameters with Effluent Limits								
Biochemical Oxygen Demand (BOD ₅) April 1 - October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	73	109	--			Calculation ¹	
Biochemical Oxygen Demand (BOD ₅) November 1 - March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	218	327	--			Calculation ¹	
Biochemical Oxygen Demand (BOD ₅) Percent Removal	%	85% (minimum)	--	--	--	1/month	Calculation ²	
Total Suspended Solids (TSS) April 1 - October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	73	109	--			Calculation ¹	
Total Suspended Solids (TSS) November 1 - March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	218	327	--			Calculation ¹	
TSS Percent Removal	%	85 (minimum)	--	--	--	1/month	Calculation ²	
<i>E. coli</i> ³	CFU/ 100 ml	126	--	406 (instant. max) ⁴	Effluent	5/month	Grab	
Total Ammonia (as N) (Interim Compliance Schedule)	mg/L	2.4	--	6.8 ⁴	Effluent	1/week	24-hour composite	
	lbs/day	17.4	--	49.3			Calculation ¹	
Total Ammonia (as N) ⁶	mg/L	1.4	--	3.8 ⁴	Effluent	1/week	24-hour composite	
	lbs/day	10.2	--	27.6			Calculation ¹	
pH	std units	Between 6.5 – 8.5			Effluent	1/week ⁵	Grab	
Report Parameters								
Temperature	°C	--	--	Report	Effluent	1/week	Grab	
Flow	mgd	Report	--	Report	Effluent	1/month	Grab	
Floating, Suspended, or Submerged Matter	--	See Paragraph I.B.2 in Permit.					1/month	Visual Observation

The effluent limits that changed between the existing permit and the proposed draft permit are the total ammonia limits (as N), see summary below in Table 8.

Table 8. Summary of Proposed Effluent Limit Changes

Total Ammonia (as N)	Existing Limits			Proposed Limits		
	mg /L	2.4	6.8	mg /L	1.4	3.8
	lbs/day	17.4	49.3	lbs/day	10.2	27.6
Sample Frequency and Sample Type	1/month		24-hour composite	1/week		Grab

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 limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits.

B. Pollutants of Concern

Pollutants of concern are those that either have technology-based limits or may need water quality-based limits. EPA identifies pollutants of concern for the discharge based on those which:

- Have a technology-based limit
- 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 disinfection with ultraviolet light. Pollutants expected in the discharge from a facility with this type of treatment include but are not limited to: BOD₅, TSS, E. coli bacteria, pH, ammonia, and temperature.

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

- BOD₅
- DO
- TSS
- *E. coli* bacteria
- pH

- Temperature
- Ammonia

C. Technology-Based Effluent Limits

1. Federal Secondary Treatment Effluent Limits

The CWA requires POTWs to meet performance-based requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level, referred to as “secondary treatment,” 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 technology-based effluent limits apply to certain municipal WWTPs and identify the minimum level of effluent quality attainable by application of secondary treatment in terms of BOD₅, 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 Limits

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		

2. Equivalent to Secondary Treatment Effluent Limits

EPA has additionally established effluent limitations (40 CFR 133.105) that are considered “equivalent to secondary treatment” which apply to facilities meeting certain conditions established under 40 CFR 133.101(g). The federally promulgated equivalent to secondary treatment effluent limits are listed below in Table 9.

Table 9. Equivalent to Secondary Treatment Effluent Limits

Parameter	30-day average	7-day average
BOD ₅	45 mg/L	65 mg/L
TSS	45 mg/L	65 mg/L
Removal for BOD ₅ and TSS (concentration)	65% (minimum)	--
Source: 40 CFR 133.105		

Using DMR data from 2005 to 2020, EPA evaluated the facility’s eligibility for effluent limits based on equivalent to secondary treatment standards. To be eligible, a POTW must meet all three of the following criteria:

- **Criterion #1 – Consistently Exceeds Secondary Treatment Standards:** The first criterion that must be satisfied to qualify for the equivalent to secondary standards is demonstrating that the BOD₅ and TSS effluent concentrations consistently achievable through proper operation and maintenance of the treatment works exceed the secondary treatment standards set forth in 40 CFR 133.102(a) and (b). The regulations at 40 CFR 133.101(f) define “effluent concentrations consistently achievable through proper operation and maintenance” as
 - (f)(1): For a given pollutant parameter, the 95th percentile value for the 30-day average effluent quality achieved by a treatment works in a period of at least 2 years, excluding values attributable to upsets, bypasses, operational errors, or other unusual conditions, and
 - (f)(2): A 7-day average value equal to 1.5 times the value derived under paragraph (f)(1)
- **Criterion #2 – Principal Treatment Process:** The second criterion that a facility must meet to be eligible for equivalent to secondary standards is that its principal treatment process must be a trickling filter or waste stabilization pond (i.e., the largest percentage of BOD₅ and TSS removal is from a trickling filter or waste stabilization pond system).
- **Criterion #3 – Provide Significant Biological Treatment:** The third criterion for applying equivalent to secondary standards is that the treatment works provides significant biological treatment of municipal wastewater. 40 CFR 133.101(k) defines significant biological treatment as using an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a 30-day average of at least 65 percent removal of BOD₅.

See Table 10 for the Treatment Equivalent to Secondary Treatment determinations for BOD₅ and TSS.

Table 10. Treatment Equivalent to Secondary Treatment Determinations for BOD₅ and TSS

Criterion 1: Consistently Exceeds Secondary Treatment Standards

BOD₅	95th Percentile	Secondary Treatment Standard	Exceeds Secondary Standard
Average Monthly	44 mg/L	30 mg/L	No
Weekly Average	66 mg/L × 1.5 = 99 mg/L	45 mg/L	No
TSS	95th Percentile	Secondary Treatment Standard	Exceeds Secondary Standard

Average Monthly	72 mg/L	30 mg/L	No
Weekly Average	$115 \text{ mg/L} \times 1.5 = 173 \text{ mg/L}$	45 mg/L	No

Criterion 2: Principal Treatment Process

Waste stabilization ponds are the primary treatment method; No.

Criterion 3: Provides Significant Biological Treatment

BOD₅ 30-day Average Percent Removal	5th Percentile	Secondary Treatment Standard	Provides Significant Biological Treatment
	74%	65%	Yes

The POTW does not meet the three criteria for treatment equivalent to secondary for BOD₅ and TSS, therefore the treatment equivalent to secondary/technology-based secondary limits, for BOD₅ and for TSS, do not apply.

3. Mass-Based Limits

The federal regulation at 40 CFR 122.45(f) requires that effluent limits be expressed in terms of mass, except under certain conditions. The regulation at 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:

$$\text{Mass based limit (lb/day)} = \text{concentration limit (mg/L)} \times \text{design flow (mgd)} \times 8.34^1$$

Since the design flow for this facility is 0.87 mgd, the technology-based mass limits for BOD₅ and TSS are calculated as follows:

$$\text{Average Monthly Limit} = 30 \text{ mg/L} \times 0.87 \text{ mgd} \times 8.34 = 218 \text{ lbs/day}$$

$$\text{Average Weekly Limit} = 45 \text{ mg/L} \times 0.87 \text{ mgd} \times 8.34 = 327 \text{ lbs/day}$$

4. Chlorine

The facility uses ultraviolet disinfection and does not use chlorine for disinfection. Therefore, no technology-based effluent limits for chlorine are applicable to this facility.

D. Water Quality-Based Effluent Limits

1. Statutory and Regulatory Basis

Section 301(b)(1)(C) of the CWA requires the development of limitations in permits necessary to meet water quality standards. 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 section 401 of the CWA. 40 CFR 122.44(d)(1) implementing Section 301(b)(1)(C) of the CWA requires that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State or Tribal water quality standard, 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 Section 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 water quality standards are met and must be consistent with any available wasteload allocation for the discharge in an approved TMDL. If there are no approved TMDLs that specify wasteload allocations for this discharge, all the water quality-based effluent limits are calculated directly from the applicable water quality standards.

2. Reasonable Potential Analysis and Need for Water Quality-Based Effluent Limits

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 water quality-based effluent limit 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.

Under the Tribe's water quality standards, dischargers are generally not authorized to use the entire upstream flow for dilution of their effluent. A mixing zone of 25 percent of the volume of

the stream flow was used for determining compliance with chronic and acute criteria for total ammonia because the Tribe's WQS require that mixing zones "be as small as feasible."

The 1Q10 and 7Q10 flows are 29 cfs and 34 cfs, respectively. Based on the above standards, twenty five percent of these flows (7.25 and 8.5 cfs, respectively) were used in the mass balance equations for ammonia to determine whether there was reasonable potential to cause exceedances of the acute and chronic criteria.

In accordance with Tribal Code Section 432.100(4)(c), only the Tribe may authorize mixing zones within the reservation. If the Tribe authorizes a different size mixing zone in its 401 certification, EPA will recalculate the effluent limits based on the final mixing zone. If the Tribe does not authorize a mixing zone in its 401 certification, EPA will recalculate the permit limits based on meeting water quality standards at the point of discharge.

3. Reasonable Potential and Water Quality-Based Effluent Limits

The reasonable potential and water quality-based effluent limit for specific parameters are summarized below. The calculations are provided in Appendix D.

a) DO and BOD₅

The Tribe's water quality standards at Tribal Code Section 432.100(2)(a)(A)(i) require DO in Shitike Creek to be at least 11 mg/L at all times to protect aquatic life uses and Section 432.200(1)(c) include technology-based limits for BOD for all waters within the reservation. Section 432.200(1)(c) of the Tribe's WQS also states that during periods of low stream flow (approximately April 1 to October 31), treatment is required that results in meeting monthly average concentrations of 10 mg/L of BOD and SS. This Section also requires that during periods of high stream flow (approximately November 1 to March 31), a minimum of secondary treatment or equivalent control be used unless otherwise specifically authorized by the Tribe. The BOD₅ of an effluent sample indicates the amount of biodegradable material in the wastewater and estimates the magnitude of oxygen consumption the wastewater will generate in the receiving water. The draft permit includes seasonal water quality-based limits for BOD₅ of 10 mg/L average monthly and 15 mg/L average weekly. Compliance with BOD₅ limits will be protective of DO in the receiving water.

b) TSS

The Tribe's water quality standards at Tribal Code Section 432.200(1)(c) include technology-based limits for suspended solids (SS) for all waters within the reservation. Section 432.200(1)(c) of the Tribe's WQS also states that during periods of low stream flow (approximately April 1 to October 31), treatment is required that results in meeting monthly average concentrations of 10 mg/L of SS. This Section also requires that during periods of high stream flow (approximately November 1 to March 31), a minimum of secondary treatment or equivalent control be used unless otherwise specifically authorized by the Tribe. In addition, the Tribe's water quality standards at Tribal Code Section 432.100(2)(k) require that surface waters to be free from floating, suspended or submerged matter of any kind in concentrations impairing designated beneficial uses. The draft permit contains seasonal water quality-based limits for TSS of 10 mg/L average monthly and 15 mg/L average weekly as well as a narrative limitation prohibiting the discharge of such materials.

c) *E. coli*

The Tribe's water quality standards per Tribal Code 432.100(2)(e)(A) state that waters of the reservation, are not to contain *E. coli* bacteria in concentrations exceeding 126 organisms per 100 ml based on a minimum of five samples taken every three to seven days over a thirty-day period. A mixing zone is not appropriate for bacteria for waters designated for contact recreation. Therefore, the draft permit contains a monthly geometric mean effluent limit for *E. coli* of 126 organisms per 100 ml.

The Tribe's water quality standards also state that a water sample that exceeds certain "single sample maximum" values indicates a likely exceedance of the geometric mean criterion, although it is not, in and of itself, a violation of water quality standards. For waters designated for primary contact recreation, the "single sample maximum" value is 406 organisms per 100 ml.

The goal of a water quality-based effluent limit is to ensure a low probability that water quality standards will be exceeded in the receiving water as a result of a discharge, while considering the variability of the pollutant in the effluent. Because a single sample value exceeding 406 organisms per 100 ml indicates a likely exceedance of the geometric mean criterion, EPA has imposed an instantaneous (single grab sample) maximum effluent limit for *E. coli* of 406 organisms per 100 ml, in addition to a monthly geometric mean limit of 126 organisms per 100 ml, which directly implements the water quality criterion for *E. coli*. This will ensure that the discharge will have a low probability of exceeding water quality standards for *E. coli*.

Regulations at 40 CFR 122.45(d)(2) require that effluent limitations for continuous discharges from POTWs be expressed as average monthly and average weekly limits, unless impracticable. 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 of the values in that data set are equal. Otherwise, the geometric mean is always less than the arithmetic mean. In order to ensure that the effluent limits are "derived from and comply with" the geometric mean water quality criterion, as required by 40 CFR 122.44(d)(1)(vii)(A), it is necessary to express the effluent limits as a monthly geometric mean and an instantaneous maximum limit.

d) pH

The Tribe's water quality standards per Tribal Code 432.100(2)(d) require pH values of the receiving water to be within the range of 6.5 to 8.5. 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. Monitoring of effluent pH is included in the current permit and will also be included in the proposed permit. The draft permit proposes to reduce the frequency of pH monitoring from two times per week to one time per week to be consistent with other sampling parameters. The Warm Springs WWTP consistently met pH limits for effluent discharge with few exceptions, therefore monitoring effluent pH once per week will provide sufficient representation of effluent characteristics.

e) Temperature

The Tribe’s WQS per Tribal Code 432.100(2)(b)(A) include temperature water quality criterion that state no measurable surface water increase resulting from anthropogenic activities is allowed unless a management plan is approved by the Tribe. The Tribe has specific temperature limit triggers for protection of salmonid and other native fish species. The most stringent criterion is for the protection of native Bull trout. The criterion applies to Shitike Creek when surface water temperatures exceed 10.0 °C per Tribal Code 432.100(2)(b)(A)(iii). Temperature monitoring was conducted during the summer months in Shitike Creek both upstream and downstream of the point of discharge. While the data suggest the Warm Springs WWTP effluent is not raising the receiving water temperature, Shitike Creek’s water temperature exceeds 10.0°C for a significant portion of the year. The design flow of the Warm Springs WWTP is 0.87 mgd (1.35 cfs), which is less than 5% of the 1Q10 flow (29 cfs) of Shitike Creek. Therefore, EPA does not expect that the Warm Springs WWTP discharge will have any effect upon the temperature of downstream Shitike Creek waters. Due to the limited data available however, EPA is requiring additional monitoring for temperature in order to evaluate the effluent’s impact on the temperature of Shitike Creek during the next reissuance of the permit. This draft permit includes effluent temperature monitoring requirements established by the previous permit and increases the upstream receiving water temperature monitoring requirements.

f) 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. The tables below show the parameters used to determine water quality criteria for ammonia.

Table 11 Ammonia Criteria (from Quality Criteria for Water 1986 EPA 440/5-86-001)

(2) 4-day average concentrations for ammonia.*

pH	0 C	5 C	10 C	15 C	20 C	25 C	30 C
A. Salmonids or Other Sensitive Coldwater Species Present							
Un-ionized Ammonia (mg/liter NH ₃)							
6.50	0.0007	0.0009	0.0013	0.0019	0.0019	0.0019	0.0019
6.75	0.0012	0.0017	0.0023	0.0033	0.0033	0.0033	0.0033
7.00	0.0021	0.0029	0.0042	0.0059	0.0059	0.0059	0.0059
7.25	0.0037	0.0052	0.0074	0.0105	0.0105	0.0105	0.0105
7.50	0.0056	0.0083	0.0132	0.0186	0.0186	0.0186	0.0186
7.75	0.0109	0.0153	0.022	0.031	0.031	0.031	0.031
8.00	0.0126	0.0177	0.025	0.035	0.035	0.035	0.035
8.25	0.0126	0.0177	0.025	0.035	0.035	0.035	0.035
8.50	0.0126	0.0177	0.025	0.035	0.035	0.035	0.035
8.75	0.0126	0.0177	0.025	0.035	0.035	0.035	0.035
9.00	0.0126	0.0177	0.025	0.035	0.035	0.035	0.035
Total Ammonia (mg/liter NH ₃)							
6.50	2.5	2.4	2.2	2.2	1.49	1.04	0.73
6.75	2.5	2.4	2.2	2.2	1.49	1.04	0.73
7.00	2.5	2.4	2.2	2.2	1.49	1.04	0.74
7.25	2.5	2.4	2.2	2.2	1.50	1.04	0.74
7.50	2.5	2.4	2.2	2.2	1.50	1.05	0.74
7.75	2.3	2.2	2.1	2.0	1.40	0.99	0.71
8.00	1.53	1.44	1.37	1.33	0.93	0.66	0.47
8.25	0.87	0.82	0.78	0.76	0.54	0.39	0.28
8.50	0.49	0.47	0.45	0.44	0.32	0.23	0.17
8.75	0.28	0.27	0.26	0.27	0.19	0.15	0.11
9.00	0.16	0.16	0.16	0.16	0.13	0.10	0.08

(1) One-hour average concentrations for ammonia.*

pH	0 C	5 C	10 C	15 C	20 C	25 C	30 C
A. Salmonids or Other Sensitive Coldwater Species Present							
Un-ionized Ammonia (mg/liter NH ₃)							
6.50	0.0091	0.0129	0.0182	0.026	0.036	0.036	0.036
6.75	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
7.00	0.023	0.033	0.046	0.066	0.093	0.093	0.093
7.25	0.034	0.048	0.068	0.095	0.135	0.135	0.135
7.50	0.045	0.064	0.091	0.128	0.181	0.181	0.181
7.75	0.056	0.080	0.113	0.159	0.22	0.22	0.22
8.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.25	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.50	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.75	0.065	0.092	0.130	0.184	0.26	0.26	0.26
9.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
Total Ammonia (mg/liter NH ₃)							
6.50	35	33	31	30	29	20	14.3
6.75	32	30	28	27	27	18.6	13.2
7.00	28	26	25	24	23	16.4	11.6
7.25	23	22	20	19.7	19.2	13.4	9.5
7.50	17.4	16.3	15.5	14.9	14.6	10.2	7.3
7.75	12.2	11.4	10.9	10.5	10.3	7.2	5.2
8.00	8.0	7.5	7.1	6.9	6.8	4.8	3.5
8.25	4.5	4.2	4.1	4.0	3.9	2.8	2.1
8.50	2.6	2.4	2.3	2.3	2.3	1.71	1.28
8.75	1.47	1.40	1.37	1.38	1.42	1.07	0.83
9.00	0.86	0.83	0.83	0.86	0.91	0.72	0.58

The current Tribal WQS refer to Quality Criteria for Water 1986 EPA 440/5-86-001 to determine limits for acute and chronic ammonia concentrations. The 1986 Criteria recommends not using interpolation between tabulated values due to the non-linear nature of the ammonia concentrations based on pH and temperature. From the tables above using pH of 8.5 and temperature of 20 C (closest tabulated value of receiving water temperature 95th percentile of 21.5 C), total ammonia for acute and chronic criteria are 2.3 and 0.32 mg/L NH₃ respectively. To convert NH₃ to total N, the tabular values are multiplied by 0.822 yielding 1.9 and 2.6 mg/L used in the calculation of the proposed ammonia limits.

A reasonable potential calculation showed that the Warm Springs WWTP discharge would have the reasonable potential to cause or contribute to a violation of the water quality criteria for ammonia. Therefore, the draft permit contains water quality-based effluent limits for ammonia. The draft permit requires that the permittee monitor the receiving water for ammonia, pH and temperature in order to determine the applicable ammonia criteria for the next permit reissuance. See Appendices C and D for reasonable potential and effluent limit calculations for ammonia. The proposed draft permit contains a compliance schedule for ammonia requiring the Tribe to meet the revised ammonia limits within 5 years of permit issuance.

E. Anti-backsliding

Section 402(o) of the Clean Water Act 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 anti-backsliding exceptions refer to Chapter 7 of the NPDES Permit Writers Manual *Final Effluent Limitations and Anti-backsliding*. The proposed permit contains effluent limits, permit conditions or standards that are equal to or more stringent than the current permit, therefore no anti-backsliding analysis is required.

VI. Monitoring Requirements

A. Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and federal regulation 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.

In addition, the permit also requires the permittee to perform effluent and ambient water quality monitoring, 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 the EPA.

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

C. 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.

Table 12 presents the proposed surface water monitoring requirements for the draft permit to verify background concentrations and determine compliance limits consistent with the ammonia criteria when the permit is reissued. Surface water monitoring results must be submitted with the DMR. In addition to the upstream parameters in Table 13, the Tribe must continue to collect downstream temperature data to assess the potential impact of effluent on stream temperatures.

Table 12. Surface Water Monitoring in Draft Permit

Ambient Surface Water Monitoring Requirements				
Parameter	Unit of Measurement	Sample Location	Sample Frequency	Sample Type
Total Ammonia (as N)	mg/L	Upstream	1/month	Grab
pH	std units	Upstream	1/month	Grab
Temperature	C	Upstream	1/month	Grab

D. Electronic Submission of Discharge Monitoring Reports

The draft 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.

The 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 DMR to Confederated Tribes of the Warm Springs Indian Reservation of Oregon Water Control Board. Currently, the permittee may submit a copy to Confederated Tribes of the Warm Springs Indian Reservation of Oregon Water Control Board by one of three ways: 1. A paper copy may be mailed. 2. The email address for Confederated Tribes of the Warm Springs Indian Reservation of Oregon Water Control Board may be added to the electronic submittal through NetDMR, or 3. The permittee may provide Confederated Tribes of the Warm Springs Indian Reservation of Oregon Water Control Board viewing rights through NetDMR.

VII. 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.

VIII. Other Permit Conditions

A. Compliance Schedules

Compliance schedules are authorized by federal NPDES regulations at 40 CFR 122.47. Compliance schedules allow a discharger to phase in, over time, compliance with water quality-based effluent limitations when limitations are in the permit for the first time. EPA has found that a compliance schedule is appropriate for the Warm Spring WWTP because Warm Spring WWTP cannot immediately comply with the new effluent limits for ammonia of 1.4 and 3.8 mg/L on the effective date of the permit. DMR data shows the Warm Spring WWTP consistently has difficulty meeting current ammonia limits. Violations for ammonia discharge limit violations was one of the primary reasons the Tribe requested assistance from IHS that resulted in IHS project PO-19-M63 Warm Springs Community Wastewater Treatment Plant Improvements. One principle goal of the project scope is to identify and construct a solution to allow the Warm Springs WWTP to consistently meet proposed ammonia limits. The compliance schedule found in the proposed permit will be linked to the schedule for IHS project PO-19-M63. Monitoring and reporting must be completed in accordance with Table 1. Effluent Limitations and Monitoring Requirements for the duration of the compliance schedule and the permit.

B. Quality Assurance Plan

The Tribe is required to update the Quality Assurance Plan within 180 days of the effective date of the final permit. The Quality Assurance Plan must consist of standard operating procedures the permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting. The plan must be retained on site and made available to EPA upon request.

C. Operation and Maintenance Plan

The permit requires the Tribe to properly operate and maintain all facilities and systems of treatment and control. Proper operation and maintenance are 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 days of the effective date of the final permit. The plan must be retained on site and made available to the EPA upon request.

D. Sanitary Sewer Overflows & Proper O&M of the Collection System

Sanitary Sewer Overflows (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 the 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 the 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 the 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.

E. 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 Warm Springs WWTP is located within or near a Census block group that is potentially overburdened because of the following EJScreen indices: PM2.5, Ozone, NATA Air Toxics Cancer Risk, NATA Respiratory Hazard Index, Lead Paint Indicator, Superfund Proximity, and Wastewater Discharge Indicator.



EJSCREEN Report (Version 2019)

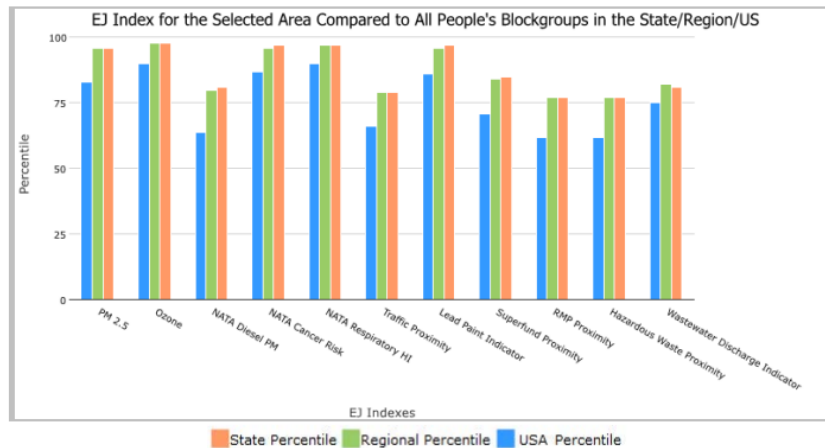


the User Specified Area, OREGON, EPA Region 10

Approximate Population: 174

Input Area (sq. miles): 1.67

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	96	96	83
EJ Index for Ozone	98	98	90
EJ Index for NATA* Diesel PM	81	80	64
EJ Index for NATA* Air Toxics Cancer Risk	97	96	87
EJ Index for NATA* Respiratory Hazard Index	97	97	90
EJ Index for Traffic Proximity and Volume	79	79	66
EJ Index for Lead Paint Indicator	97	96	86
EJ Index for Superfund Proximity	85	84	71
EJ Index for RMP Proximity	77	77	62
EJ Index for Hazardous Waste Proximity	77	77	62
EJ Index for Wastewater Discharge Indicator	81	82	75



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.

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*.

F. 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.

G. Pretreatment Requirements

Since the Tribe does not have an approved POTW pretreatment program per 40 CFR 403.8, EPA is also the Control Authority of industrial users that might introduce pollutants into the Warm Spring WWTP.

Special Condition Section II.E of the permit reminds the Permittee that it cannot authorize discharges which may violate the national specific prohibitions of the General Pretreatment Program.

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 sections 307 (b) and (c) and 402(b)(8) of the Clean Water Act, 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.

Background on the pretreatment program may be found at Introduction to the National Pretreatment Program (EPA, 2011).

H. Standard Permit Provisions

Sections III, IV and V of the draft permit 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.

IX. Other Legal Requirements

A. Endangered Species Act

The Endangered Species Act 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 found bull trout and Middle Columbia steelhead as threatened species found in the vicinity of Warm Spring's WWTP discharge. EPA has determined the discharge proposed by this permit will have no effect on threatened and endangered species. See Appendix E.

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 the EPA to consult with NOAA Fisheries when a proposed discharge has the potential to adversely affect EFH (i.e., reduce quality and/or quantity of EFH). A review of the Essential Fish Habitat documents shows that the Middle Columbia steelhead uses the area of Shitike Creek near the proposed discharge as a migrational corridor.

The EFH regulations define an adverse effect as any impact which reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The EPA has prepared an EFH assessment which appears in Appendix F.

The EPA has determined that issuance of this permit will not adversely affect EFH.

C. Tribal Certification

Section 401 of the CWA requires the EPA to seek State or Tribal certification before issuing a final permit. As a result of the certification, the State or Tribe may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with water quality standards, or treatment standards established pursuant to any State or Tribal law or regulation. Since this facility discharges to tribal waters of the Confederated Tribes of Warm Springs and the Tribe has been approved for TAS from the EPA for purposes of the Clean Water Act, the Confederated Tribes of Warm Springs is the certifying authority. EPA requested final certification under Section 401 of the CWA from the Confederated Tribes of Warm Springs on February 23rd, 2021.

D. Antidegradation

In addition to water quality-based limitations for pollutants that could cause or contribute to exceedances of numeric or narrative criteria, EPA must consider the Tribe's antidegradation policy (Section 432.020). This policy is designed to protect existing water quality when the existing quality is better than that required to meet the standard and to prevent water quality from being degraded below the standard when existing quality just meets the standard. For high quality waters, antidegradation requires that the Tribe find that allowing lower water quality is necessary to accommodate important economic or social development before any degradation is authorized. This means that, if water quality is better than necessary to meet the water quality standards, increased permit limits can be authorized only if they do not cause degradation or if the Tribe makes the determination that it is necessary. Because the limits in the draft permit are protective of the Shitike Creek's designated uses, the draft permit complies with the Tribe's antidegradation policy.

E. Permit Expiration

The permit will expire five years from the effective date.

X. References

Confederated Tribes of Warm Springs. *Water Quality Standards, Beneficial Uses, and Treatment Criteria*. July 20th, 2006. <https://www.epa.gov/sites/production/files/2014-12/documents/confederated-tribes-warmsprings.pdf>

EPA. 2010. *NPDES Permit Writers' Manual*. Environmental Protection Agency, Office of Wastewater Management, EPA-833-K-10-001. September 2010. https://www3.epa.gov/npdes/pubs/pwm_2010.pdf

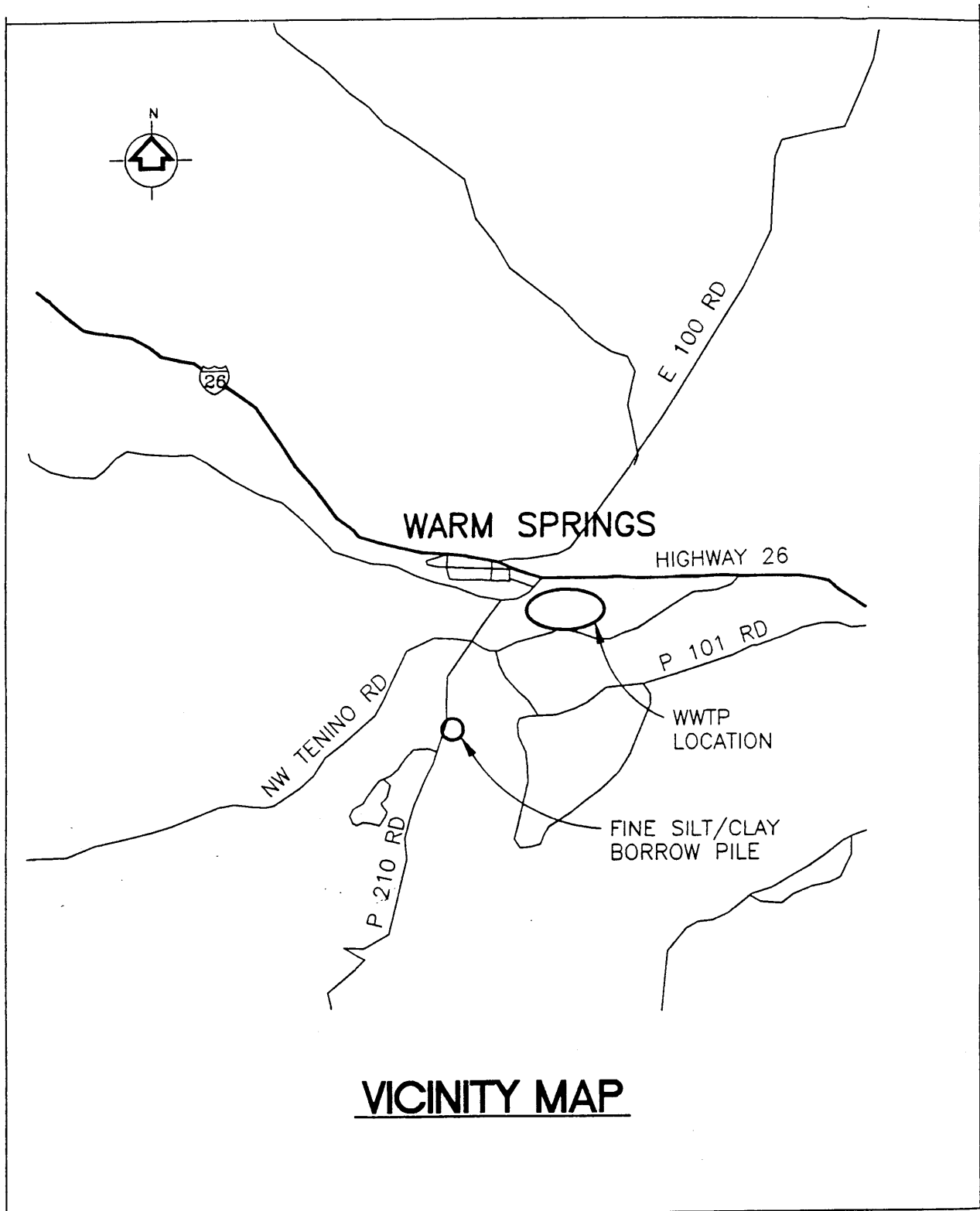
EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. US Environmental Protection Agency, Office of Water, EPA/505/2-90-001. <https://www3.epa.gov/npdes/pubs/owm0264.pdf>

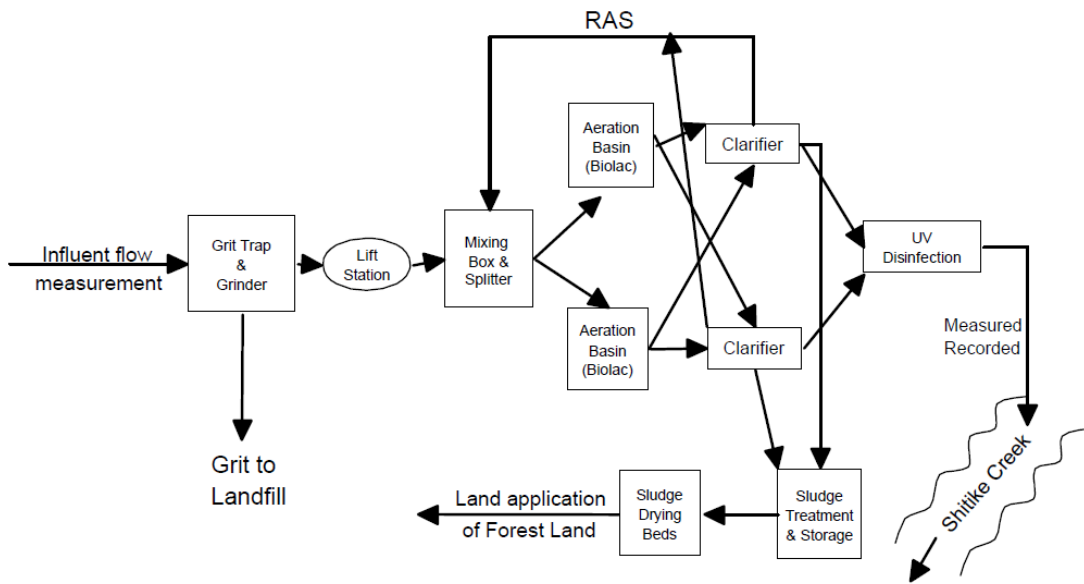
EPA. 2014. *Water Quality Standards Handbook Chapter 5: General Policies*. Environmental Protection Agency. Office of Water. EPA 820-B-14-004. September 2014. <https://www.epa.gov/sites/production/files/2014-09/documents/handbook-chapter5.pdf>

EPA. 1986. *Quality Criteria for Water*. Environmental Protection Agency. Office of Water Regulations and Standards. EPA 440/5-86-001. <https://www.epa.gov/sites/production/files/2018-10/documents/quality-criteria-water-1986.pdf>

Oregon Department of Environmental Quality. Chapter 340 Division 41. *Water Quality Standards: Beneficial Uses, Policies, and Criteria for Oregon*. https://secure.sos.state.or.us/oard/displayDivisionRules.action;JSESSIONID_OARD=d10bJnhkX3j7Ca7j9aekUfaW8JohOPKVmKg1DvUMdmXtRi9F-PZM!-528628539?selectedDivision=1458

Appendix A. Facility Information





Process Flow Diagram for the Warm Springs Wastewater Treatment Plant

Appendix B. Water Quality Data

Fact Sheet NPDES Permit #OR0032638 Warm Springs Wastewater Treatment Plant

A. Treatment Plant Effluent Data

Parameter Location	Flow, in conduit or thru treatment plant	BOD, 5-day, 20 deg. C Apr 1 - Oct 31		BOD, 5-day, 20 deg. C Oct 31 - Apr 1		BOD, 5-day, 20 deg. C Nov 1 - Mar 31		BOD, 5-day, 20 deg. C Mar 31 - Nov 1		BOD, 5-day, 20 deg. C	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended
		Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross										
Statistical Base	MO AVE	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MIN % RMV	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MIN % RMV
Limit Units	MGD	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	%	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	%
Current Limit	0.87	10	73	15	109	30	218	45	327	85	10	73	15	109	30	218	45	327	85
01/31/2005						1.3	2.8	5	11.3	98.2					4.8	10.2	8	18.1	93.1
02/28/2005	0.181					1.8	3.1	4	7	98					6	10.4	8	14.1	89.9
03/31/2005	0.196					3.2	6.1	10	20.7	97.4					9.2	17.8	23	47.6	89.9
04/30/2005	0.192	2	4.5	4.4	18.1					93.3	6.8	12.96	15.6	29.94					91.3
05/31/2005	0.241	5.8	12.5	6	17					94.3	8.5	12.96	15.6	29.94					91.5
06/30/2005	0.212	1.42	2.68	4.4	8.92					98.9	7	12.96	15.6	29.94					95.7
07/31/2005	0.216	4.5	10.1	6	12.6					96	14.3	31.7	24	50.2					89.7
08/31/2005	0.235	1.8	3.7	3	6.7					98.7	3.8	7.6	5	11.2					97.5
09/30/2005	0.233	2.3	5.8	3	7.4					98.4	7.3	17.7	10	21.4					95.2
10/31/2005	0.24	3	5.6	6	10.3					97.9	7.5	14.1	15	25.8					95
11/30/2005	0.23					1.9	4.2	2.7	6.2	98.6					6.1	13.3	12	25.7	96.5
12/31/2005	0.22					3.9	10.6	9.1	27.8	96.3					5.7	15.2	10.7	32.7	91.8
01/31/2006	0.289																		
02/28/2006	0.259					4.6	12.8	8.7	8.7	97.4					9	23.6	14	37.4	98.9
03/31/2006	0.234																		
04/30/2006	0.225																		
05/31/2006	0.259										15.2	15.2	15.2	47.4					98.4
06/30/2006	0.24																		
07/31/2006	0.238	0.5	1.2	2	4.6					99.7									
08/31/2006	0.24																		
09/30/2006	0.229																		
10/31/2006	0.2133																		
11/30/2006	0.226																		
12/31/2006	0.241														2.5	2.9	10	11.8	99.6
01/31/2007	0.237																		
02/28/2007	0.246					2	4.8	8	19.1	99.6					10.1	24.1	40.3	96.5	99.4
03/31/2007	0.293					0.3	0.6	1	2.3	99.8									
04/30/2007	0.232	1	2.2	2	4.5					99.8	2.2	4.8	3.3	7.2					99.7
05/31/2007	0.225																		
06/30/2007	0.223																		
07/31/2007	0.233	4.6	9.8	23	48.9					99.3	6.7	14.3	33.6	71.5					99.2
08/31/2007	0.231																		
09/30/2007	0.237																		
10/31/2007	0.244										2	4.2	10	20.9					99.8
11/30/2007	0.224																		
12/31/2007	0.229																		
01/31/2008	0.242																		
02/29/2008	0.286																		
03/31/2008	0.26																		
04/30/2008	0.235																		
05/31/2008	0.211																		
06/30/2008	0.236																		
07/31/2008	0.255																		
08/31/2008	0.222																		
09/30/2008	0.229	0.4	0.7	2	3.5					99.9									
10/31/2008	0.256																		
11/30/2008	0.233																		
12/31/2008	0.218																		
01/31/2009	0.23																		
02/28/2009	0.24																		
03/31/2009	0.249																		
04/30/2009	0.247										4	8.1	16	32.3					98.8
05/31/2009	0.257																		
06/30/2009	0.257																		
07/31/2009	0.274																		
08/31/2009	0.302	5.1	9	25.4	45.1					99.2	5.6	9.9	28	49.7					99.3
09/30/2009	0.276																		
10/31/2009	0.223																		
11/30/2009	0.263														1.21	2.56	1.21	2.56	100
12/31/2009	0.287																		
01/31/2010	0.29																		
02/28/2010	0.257					0.6	1.4	3.14	6.9	99.8					7.81	16.72	8.73	18.89	100
03/31/2010	0.264	1.6	3.2	3.55	6.8					99.7									
04/30/2010	0.303	1.3	2.8	3	6.4					99.5									
05/31/2010	0.295	3.3	6.2	5.7	11.8					99.5									
06/30/2010	0.34	4.1	8.5	6.6	13.5					99.1					2.5	5.1	10	20.3	99.4
07/31/2010	0.32	3.1	7.1	4	9.8					99.2									
08/31/2010	0.302	15	34.7	55.8	130.3					97.6	4.8	10	24	49.8					98.2
09/30/2010	0.293	2.2	4.6	3.5	7.4					99.6	12.8	24	40	73.1					97.8
10/31/2010	0.293					3.8	7.8	5.4	10.3	99.5					2.8	6.9	14	34.3	99.8
11/30/2010	0.281					3.3	5.9	6.4	12.7	99.6					20.5	36.8	31	56.9	98.8
12/31/2010	0.272					6.7	18.8	11.3	34.9	98					10.3	23.5	30	69.8	98.3
01/31/2011	0.289					7	17.3	9.6	28.3	96.6					11.8	28.5	18	40.3	95.2
02/28/2011	0.293					11.9	27.1	26.2	62.3	96.7					28	64	62.9	149.5	94.5
03/31/2011	0.265	9.1	18.3	10.3	21					97.7	43.3	86.7	56	105.1					91.5
04/30/2011	0.244	18.4	34.2	31.9	59.9					94.6	39	72	43	85.4					93.4
05/31/2011	0.307	60	122	190	380					64	99.9	310							63.3
06/30/2011	0.248	15.5	34.4	24.3	56.5					93.9	24.3	52.8	51	111					93.9
07/31/2011	0.273	4.6	10	10.2	22.5					98.6	5	9.6	14	29.5					99.6
08/31/2011	0.303	4.4	8.5	10	20.1					99.9	25.8	43	103	171.8					97.8
09/30/2011	0.28	7.3	16.3	21.3	48					96.8	7.8	17.3	18	40.5					97.1
10/31/2011	0.31					3.7	7.6	4.6	8.7	99.2					4.4	9.3	11	24.4	98.7
11/30/2011	0.285					3.5	10	5.05	16.4	98.5					4	13	16	52	99.6
12/31/2011	0.283					5.8	13.5	7.3	19.1	97.4					4.4	11.1	11	29.5	99.1
01/31/2012	0.295					8.1	16	9.89	22.8	97.8					14.4	29.5	16.6	37.1	97.3
02/29/2012	0.29					8	15.8	10.7	24.6	98.1					7	12.4	15	34.5	99
03/31/2012	0.45	7.8	15.4	12.7	29.4					97.76	10	21	23.3	30.2					97.89
04/30/2012	0.264	7.8	15.4	12.7	29.4					98	18.8	37	38	88.1					98
05/31/2012	0.285	6.1	11.9	11.6	23.2					98.9	12.5	24.4	21	42					98.6
06/30/2012	0.251	3.6	6.5	5.8	8.9					98.7	442	973	533						

Fact Sheet NPDES Permit #OR0032638 Warm Springs Wastewater Treatment Plant

Parameter	Flow, in conduit or thru treatment plant	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	BOD, 5-day, 20 deg. C	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Apr 1 - Oct 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31	Solids, total suspended Nov 1 - Mar 31			
		Apr 1 - Oct 31	Apr 1 - Oct 31	Apr 1 - Oct 31	Apr 1 - Oct 31	Nov 1 - Mar 31	Nov 1 - Mar 31	Nov 1 - Mar 31	Nov 1 - Mar 31	Nov 1 - Mar 31									Nov 1 - Mar 31		
Monitoring Location	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross			
Statistical Base	MO AVE	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MIN % RMV	MO AVG	MO AVG	WKLY AVG	WKLY AVG	MO AVG	MO AVG	WKLY AVG	WKLY AVG			
Limit Units	MGD	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	%	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d	mg/L	lb/d			
Current Limit	0.87	10	73	15	109	30	218	45	327	85	10	73	15	109	30	218	45	327	85		
11/30/2012	0.241						16.5	296	12.6	713	93					28.3	631	39.2	1332	92	
12/31/2012							6	104	3.8	348						10	180	28	1660		
01/31/2013							6.5	9.1	10.9	14.6	95.9					12.6	17.5	26	34.9	96.2	
02/28/2013							15.4	21	36	46.8	92.3					26.4	37.7	39	61.5	91.8	
03/31/2013	0.1979						65.3	96.7	90	141.1	46.7					43.1	64.3	70	109.8	87.6	
04/30/2013		82.8	139.9	120	193.2						80	45.4	77.7	89.1		89.2				90	
05/31/2013		46	86.9	90	219.2						84	48.5	95.1	98.3		239.4				89.7	
06/30/2013		12.3	24	18	37.2						97	14.3	28.1	22.9		47.4				97	
07/31/2013	0.232	10.6	17.8	13	23.3						97	13	21.6	19.3		29.7				98	
08/31/2013	0.274	13	22.8	18	31.6						97	13.8	24.3	19.3		35.9				95	
09/30/2013	0.2	7	11.3	10	17.3						98	9.7	15.5	12.6		20.7				94	
10/31/2013	0.1795	20.2	420	33	600						99.4	17.8	319	34.5		758				91.9	
11/30/2013							11	183	3	200	93.7					14.9	196	10.9	118	95.3	
12/31/2013	0.225						16.2	269	8	96	85					64	425	14.2	83	77.6	
01/31/2014	0.2						18	387	35	185	93.1					78	543	17	204	84	
02/28/2014	0.18						26.3	708	51	110	72.3					64.6	1171	134	700	87.5	
03/31/2014	0.257						15	297	22	250	91.6					33.7	654	49.5	523	79.3	
04/30/2014	0.244	9	19.4	17	35.4						96.2	17.7	38.3	28.5		61.6				91.4	
05/31/2014	0.249	14.3	29.7	20	44.9						92.1	17.2	29.7	22.8		44.9				89.3	
06/30/2014	0.286	19.5	29.4	28	33.9						93.7	21.2	35.5	23.7		42.3				89	
07/31/2014	0.2812	8.8	21.9	11.5	27.4						94.9	14	351	23		554				95	
08/31/2014	11.7	24.7	16	29.8							94	18.6	39.6	26		48.4				91	
09/30/2014	8.6	16.1	14	25.9							93.2	9	16.7	11.8		20.7				94.8	
10/31/2014	4	555	2	190							98										
11/30/2014							3.5	195	1	140	96					10.9		18.8		93	
12/31/2014							20.3	115	2	74	90					54.3		1		89	
01/31/2015	0.0082						10.3	165	5	48	88					30.5	252	9.8	74	25	
02/28/2015	0.1567						6.7	183	4	83	90					14.4	226	6	82	67	
03/31/2015	0.2173						13.2	142	3.4	48	66.9					19	154	9.3	94	81.9	
04/30/2015	0.227	6	11.2	12.7	26.2						96.2	9.1	17.3	18.5		38.7				96.3	
05/31/2015	0.217	23.9	52.2	27.8	59.4						74.2	90	202	158		357.1				20	
06/30/2015	0.4	19.8	32.4	33.6	69.8						94	45.3	82.1	92		203.3				89	
07/31/2015	0.252	9.1	19.26	14.7	31.1						94	1	32.1	15.2		63.8				91.7	
08/31/2015	0.252	5.6	30.35	7.8	96.7						96.7	10	21.5	50		50				68.8	
09/30/2015	0.252	3.1	5.12	5.6	20.5						97.5	1	8.7	13		18.9				94.5	
10/31/2015	0.561	2.4	4.2	3.9	6.8						99.1	3.5	14.4	13		23.4				97.5	
11/30/2015	0.465						2.1	255	5.6	159	99.1					10.5	573	15	264	98.3	
12/31/2015	0.767						6.3	130	11.5	106	95.9					6.3	199	11.5	286	96.2	
01/31/2016	0.494						27.7	120	14	100	91.5					26	245	29	308	93.1	
02/29/2016	0.211						5.4	204	14.9	129	95.8					16.2	330	28	684	90.8	
03/31/2016	0.278						19.2	245	28.6	167	87.4					27.3	384	40	662	79.1	
04/30/2016	0.201	8.1	14.1	13.3	23.6						95.4	14.3	24.8	19		33.8				91.3	
05/31/2016	0.2053	13.2	24.4	19	38.5						94.2	20.2	36	28		56.7				80.7	
06/30/2016	0.212	20.6	34.9	25	40.4						90.6	27	45.4	36		52.2				86.4	
07/31/2016	0.283	22.3	39.7	25.5	45.9						91.9	71	1273	92		165.7				82	
08/31/2016	0.246	64.5	130	270	502						90.1	73.2	182.9	174		555.8				48.1	
09/30/2016	0.285	4.3	7.8	10.5	20						97.6	7.6	13.5	18		34.2				97.7	
10/31/2016	0.2283	17.8	37.4	37.5	76.6						73.6	19	39.7	38		77.6				93.3	
11/30/2016	0.2124						18.3	32.7	23.7	43.5	87.4					334	59.1	450	79.6	92.2	
12/31/2016	0.1711						14.7	14.7	26.4	26.4	85					20.4	104.1	29	34.7	82.9	
01/31/2017																					
02/28/2017																					
03/31/2017																					
04/30/2017																					
05/31/2017																					
06/30/2017																					
07/31/2017																					
08/31/2017																					
09/30/2017																					
10/31/2017																					
11/30/2017																					
12/31/2017																					
01/31/2018	0.1798						3.4	488	12.1	973	98.9					2.2	410	2	150	98.6	
02/28/2018	0.1986						2.3	3.3	5	5	99.7					3.7	5048	7.6		99.9	
03/31/2018	0.1904						8	657	15	1126	97.8					8.5	12.5	15.2	25.5	98.5	
04/30/2018	0.205	3.8	6	7	10.7						99	6.5	10.4	8.6		13.5				97.8	
05/31/2018	0.201	0.6	5.1	3	5.1						99.9	1.1	1.9	3.4		5.8				99.9	
06/30/2018	0.1969	1.5	2.1	2	2.9						99.6									100	
07/31/2018	0.1602	32.3	46	50	75.5						93.8	21.3	30.4	32.3		48.8				98	
08/31/2018	0.19	62.5	87.5	90	130.6						89.1	30.1	41.6	41		59.5				97.6	
09/30/2018	0.1393	3.8	4.9	9	11.2						99.3	4.9	6.5	9		11.2				99.6	
10/31/2018	0.1824	2.2	3.4	5	8.3						99.8	5.2	8	9.1		15				99.7	
11/30/2018	0.1815						7.5	11.8	17	26.2	97					10.2	16	20.9	32.2	96.4	
12/31/2018	0.1748						2.8	4.7	4	7.1	98.4					2.9	4.8	6.5	10.3	98.9	
01/31/2019	0.1628						2.4	3.7	3	4.6	99.3					6.9	10.6	6.99	8.9	98.6	
02/28/2019	0.1529						7.8	11.9	13	19.4	99					9.1	13.7	16	23.9	99.5	
03/31/2019	0.1738						6.4	10.8	10	15.3	97.5					5	8	13.3	20	98.2	
04/30/2019	0.2268	9.9	15.3	12.5	28.7						96	7.4	9.1	13.6		23.5				98.9	
05/31/2019	0.2139	14.5	30.3	19	41.8						85.5	19.7	45.3	33.3		99.4				47.4	

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Parameter	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	pH	pH	E. coli	E. coli	Temperature
Monitoring Location	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross
Statistical Base	DAILY MAX	DAILY MAX	MO AVG	MO AVG	INST MAX	INST MIN	INST MAX	MO GEO MN	MO AVG
Limit Units	mg/L	lb/d	mg/L	lb/d	SU	SU	#/100m L	#/100m L	C
Current Limit	6.8	49.3	2.4	17.4	8.5	6.5	406	126	
01/31/2005					8.7	6	308	0.745	9.3
02/28/2005	0.5				7.2	6.5	1	0.317	9.8
03/31/2005	2.6				7	6.5	117	0.651	15.8
04/30/2005	1	2	0.25	0.5	7.4	6.5	10	0.562	14.1
05/31/2005	4	11.31	2	5.65	7.3	6.6	111	7.04	13.2
06/30/2005	2	3.42	1	1.74	7.2	6.5	23	4	17.5
07/31/2005					8.4	7	12	2.213	21.4
08/31/2005					7.8	6.8	2	0.095	22.9
09/30/2005	16	34.29	5.33	11.43	7.2	6.8	34	5.89	20.1
10/31/2005	14	37.3	9.25	20.1	8.4	7	15	5.73	14.4
11/30/2005	13	27.8	7.28	15.6	8.4	7	1	0.25	13.7
12/31/2005	12	27.6	6	13.8	8	6.7	28	2.55	13.6
01/31/2006	0.163	0.46	0.163	0.23	7.3	6.5	6.3	3.52	12.2
02/28/2006	0.115	0.31	0.115	0.31	7.2	6.7	126	18.63	12.9
03/31/2006	0.882	2.71	0.882	2.71	7.8	6.4			10
04/30/2006	0.23	0.58	0.23	0.58	7.4	6.6	726	2.44	12.7
05/31/2006	0.057	0.16	0.057	0.16	7.5	6.6	14.6	28.34	12.9
06/30/2006	0.31	0.68	0.31	0.68	8	7	7.5	4.16	16.3
07/31/2006	0.21	0.42	0.21	0.42	7.8	7.1	10.9	6.43	13.3
08/31/2006	1.11	2.3	1.11	2.3	7.6	6.5	14.8	5.44	
09/30/2006	0.12	0.23	0.12	0.23	7.5	6.9	6.3	2.5	14.5
10/31/2006	0.24		0.24		7.9	6.8	45.9	2.11	17.58
11/30/2006					7.8	6.9	5.2	0.85	16.1
12/31/2006	1.78		1.78		7.5	6.9	1	0.18	13.4
01/31/2007	0.41	1.01	0.41	1.01	7.4	6.5	0.18	0.18	13.6
02/28/2007	1.36	3.01	1.36	3.01	7.8	6.9	0.242	0.242	11.8
03/31/2007	0.26	0.62	0.26	0.62	7.8	7.1	0.7	0.7	13.6
04/30/2007	1.89	3.88	1.89	3.88	7.8	6.9	1	1	14.6
05/31/2007	1.49	3.27	1.49	3.27	7.7	6.5	11	1.02	15.1
06/30/2007	5.42	12.79	5.42	12.79	7.8	7	12.1	4.74	15.2
07/31/2007	6.27	15.16	6.27	15.16	7.5	6.7	2420	28.4	21.7
08/31/2007	0.27	0.58	0.27	0.58	7.2	6.5	7.4	0.927	20.1
09/30/2007	3.69	9.82	3.69	9.82	7.2	6.7	14.6	0.879	19.3
10/31/2007	0.66	1.3	0.66	1.3	7.5	6.8	272	5.26	17.8
11/30/2007	0.43	0.95	0.43	0.95	7.8	7	1	0.316	17.02
12/31/2007					7.8	6.9	3.1	0.887	16.6
01/31/2008	0.33	0.67	0.33	0.67	7.6	6.5	90.8	12.55	13.4
02/29/2008	0.94	2.74	0.94	2.74	7.6	7	5.2	1.51	12
03/31/2008	2.92	9.03	2.92	9.03	7.2	6.9	27.9	8.82	14.2
04/30/2008	0.43	0.94	0.43	0.94	7.3	6.9	3.1	0.08	15.5
05/31/2008	0.2	0.39	0.2	0.39	7.3	7	2	0.04	16.6
06/30/2008	0.39	0.86	0.39	0.86	7.4	6.6	2	0.14	20.1
07/31/2008	6.33	16.1	6.33	16.1	7.3	6.8	38.9	11.2	21.9
08/31/2008	2.9	6.66	2.9	6.66	7.3	6.7	435	9.99	21.9
09/30/2008	0.43	0.87	0.43	0.87	7.4	7	7.3	0.32	21.5
10/31/2008	1.06	2.36	1.06	2.36	7.3	7	14.6	0.232	21.4
11/30/2008	1.02	2.08	1.02	2.08	7.3	7	4.1	0.597	21.4
12/31/2008	1.83	3.74	1.83	3.74	7.3	7	90.6	11.14	21.4
01/31/2009	13.9	27.24	13.9	27.24	6.7	6.5	11	0.321	
02/28/2009					7.9	6.7	20	6.7	
03/31/2009					7.4	6.8	108	33	
04/30/2009	0.62	1.27	0.62	1.27	7.6	6.5	54.3	2.47	14.1
05/31/2009	1.02	2.37	1.02	2.37	7.3	6.8		0.01	18
06/30/2009	1.14	2.4	1.14	2.4	7.3	7.2	6.2	0.66	18.4
07/31/2009	1.17	2.04	1.17	2.04	7.3	6.6	1	0.031	20.8
08/31/2009					7.3	7	20.6	4.77	21.4
09/30/2009	1.63	4.76	1.63	4.76	7.5	6.8	124	0.17	19.6
10/31/2009	1.69	2.73	1.69	2.73	7.4	7	5.1	0.57	16.5
11/30/2009					7.5	7.1	1	0.1	14.3
12/31/2009	4.1		0.1		7.3	7	4.1	0.1	11.6
01/31/2010	1.4	2.9	1.4	2.9	7.6	6.9	9.7	2.1	12
02/28/2010	3.07	6.43	3.07	6.43	7.6	6.7	12.1	3.4	10.7
03/31/2010	101		15		7.4	6.9	101	15	11
04/30/2010	12.4	23.89	10.58	20.24	7.6	7.1	18.1	2.1	
05/31/2010	11	21.56	10.6	20.52	7.2	7	1	1	15
06/30/2010	9.93	19.3	9.93	19.3	7.5	7.2	3.1	1.25	14.7
07/31/2010	5.72	13.36	5.72	13.36	7.4	7	57.1	12.9	18.5
08/31/2010	1.44	3.25	1.44	3.25	7.5	7	7.4	2.8	18.8
09/30/2010	1.6	3.32	1.6	3.32	7.3	6.9	12.2	2.2	15
10/31/2010	7.71	16.2	4.4	9.06	7.3	7	31.3	2.37	16.9
11/30/2010	2.58	5.5	2.58	5.5	7.2	7	16	3.95	15.4
12/31/2010	5.92	10.86	5.92	10.86	7.5	6.9	228	32.56	9.9
01/31/2011	8.73	20.31	8.73	20.31	7.3	6.6	517	255	8.5
02/28/2011	7.48	16.84	7.48	16.84	7.2	7	649	27	9.1
03/31/2011	8.88	21.55	8.88	21.55	7.4	7.1	2420	631	10.6
04/30/2011	11	22.38	11	22.38	7.5	6.7	2420	1644	11
05/31/2011	11.2	21.02	11.2	21.02	7.2	7	2420	588	10.9
06/30/2011	10.7	20.35	10.7	20.35	7.5	7.3	2420	331	10.7
07/31/2011	10.6	21.22	10.6	21.22	7.4	7.1	194	27.4	10.6
08/31/2011	7.26	16.05	7.26	16.05	7	6.7	48.8	5.9	18.6
09/30/2011	0.21	0.4	0.21	0.4	7.1	6.9	1	1	16.2
10/31/2011	8.41	18.94	8.41	18.94	7.4	6.9	2420	47.4	16.9
11/30/2011	2.2	4.5	2.2	4.5	7.3	7	4.1	1.9	15
12/31/2011	0.75	1.41	0.75	1.41	7.4	7.1	5.2	2.1	9.8
01/31/2012	2.97	5.4	2.97	5.4	7.3	7	2	1.1	10.6
02/29/2012	3.29	3.32	3.29	3.32	7.2	7	2	1.4	12.8
03/31/2012	6.77	13.78	6.77	13.78	7.3	7	2	1.2	12.2
04/30/2012	8.27	49.2	8.27	49.2			1410	90	
05/31/2012	10.3	24.57	10.3	24.57				16.76	
06/30/2012	9.15	17.55	9.15	17.55			80.8	21.64	
07/31/2012							3	24.25	
08/31/2012	1	15.7	1	15.7			1	1	
09/30/2012	4.45	6.53	4.45	6.53			1	1	
10/31/2012	5.08	15.4	0.41	14.3	7.7	7.2	2419	309	17.7

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Parameter	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	Nitrogen, ammonia total [as N]	pH	pH	E. coli	E. coli	Temperature	
Monitoring Location	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	Effluent Gross	
Statistical Base	DAILY MAX	DAILY MAX	MO AVG	MO AVG	INST MAX	INST MIN	INST MAX	MO GEO MIN	MO AVG	
Limit Units	mg/L	lb/d	mg/L	lb/d	SU	SU	#/100m L	#/100m L	C	
Current Limit	6.8	49.3	2.4	17.4	8.5	6.5	406	126		
11/30/2012	1	14.4	1	14.4	8	7.6	2420	2420	16.9	
12/31/2012					8	7.7			13	
01/31/2013	15.8	24.11	15.8	24.11	7.8	7.6	579	579	9.4	
02/28/2013	9.77	15.24	9.77	15.24	6.9	6.5	1730	52	10.1	
03/31/2013	21.17		21.17		6.8	6.1		2420	10.8	
04/30/2013	20	20	20	20			242	242		
05/31/2013	13.4	13.4	13.4	13.4			32	12		
06/30/2013	6.61	11.25	6.61	11.25			387	62		
07/31/2013	6.9	13.41	6.9	13.41		6.5	411	115.5		
08/31/2013	1.52	2.57	1.52	2.57		6.7	276	42.1		
09/30/2013	11	18.9	11	18.9		6.5	111	3		
10/31/2013	9.89	19.2	5.3	17.8		7	5	41.6	21	
11/30/2013	12.7	19.6	12.7	19.6	6.9	6.8	26	12	14.6	
12/31/2013					6.8	6.7	1200	144	12.1	
01/31/2014	5.31	12.2	5.31	12.2	7.2	6.9			12.6	
02/28/2014	11.3	14.9	11.3	14.9	7.2	6.9			12.9	
03/31/2014	11.3	15.2	11.3	15.2	7	6.8			12.1	
04/30/2014	5.28	11.01	5.28	11.01	7.4	6.9	13.4	1.3	13.8	
05/31/2014						6.9	2420	33.31	15.6	
06/30/2014	14.5	32.7	14.5	32.7		7	2419.6	13.3	15.6	
07/31/2014	6.67	19.9	6.67	19.9	7.7	6.8	58	14.53	22.7	
08/31/2014	7.23	7.23	7.23	7.23		7.2	28	6.83	22.8	
09/30/2014	7.93	12.47	7.93	12.43		7.3	49	4.26	21.4	
10/31/2014	1	13.9	1	13.9		7.2	4.2	4.2	7.3	
11/30/2014	1	14	1	14		7	1.9	1.9	14.1	
12/31/2014						7.3	3.9	3.9	14.3	
01/31/2015	0.84	0.84	0.84	0.84		6.9	3.28	3.28	10.8	
02/28/2015	14.2	14.2	14.2	14.2	7.2	6.9	28.8	28.8	0.6	
03/31/2015	12.2	12.2	12.2	12.2		6.4	995	995	13.9	
04/30/2015	14.7	27.2	14.7	8.6	7.11	6.3		40.4	17.5	
05/31/2015						7.4	6.6	2420	49.19	17.9
06/30/2015					7.7	6.1	2420	586.5	27.7	
07/31/2015	1	1	1	1	7.6	6.6		445.7	7.6	
08/31/2015	10.6	16.8	10.6	16.8	6.8	6.5		393	22.6	
09/30/2015	1.68	15.7	1.68	15.7	7.5	6.8		4.59	7.5	
10/31/2015	1.96	3.53	1.96	3.53		6.6	9	1.84	18.2	
11/30/2015					6.8	6.6	4.1	0.74	16.9	
12/31/2015	10.8	22.4	10.1	19.9	7.6	6.98	2420	144.8	14.4	
01/31/2016	14.8	89.8	14.8	89.8	7.7	6.8	2420	1392	13.2	
02/29/2016	9.8	19.9	9.8	19.9	7.6	6.6	548	20.9	13.6	
03/31/2016	15.4	26.6	15.4	26.6	7.4	6.8	2420	284.5	13.8	
04/30/2016	10.1	17.6	10.1	17.6	7.9	6.3	2420	386.97	17.3	
05/31/2016	18.2	23.68	18.2	23.68	7.5	6.2	2420	1370.9	19.6	
06/30/2016	24.9	40.29	24.9	40.29	7.6	7.1	2420	2420	22.2	
07/31/2016	15.7	28.8	15.7	28.8	7.5	7.1		10659	22.2	
08/31/2016	10.6	19.71	10.6	19.71	8.3	7		64.99	21.9	
09/30/2016	10.1	17.2	10.1	17.2	7.5	7.2		6.005	20.4	
10/31/2016	20.2	43.46	19.75	42.37		6.9	1299	1299.2	17.4	
11/30/2016	15.2		15.2	27.89	7.7	7	1274	1274	17.23	
12/31/2016	6.53	80.6	6.53	80.6	9.5	7.1	375	375	9.7	
01/31/2017										
02/28/2017										
03/31/2017										
04/30/2017										
05/31/2017										
06/30/2017										
07/31/2017										
08/31/2017										
09/30/2017										
10/31/2017										
11/30/2017										
12/31/2017										
01/31/2018		17.8		17.8	7.4	7	2	2		
02/28/2018					7.4	6.8	19	19		
03/31/2018	16.2	40.2	16.2	40.2	7.3	7.2	525	9		
04/30/2018	8.8	26.6	8.8	26.6	7.3	7.1	18.7	4.98		
05/31/2018		24.5		24.5	7.1	6.8	1	1		
06/30/2018	9.1	32.28	9.1	32.28	7.1	6.8				
07/31/2018	14.3	20.2	14.3	20.2	7.5	7.3	2419	1765.9		
08/31/2018	18.1	21.7	18.1	21.7	7.7	7.4	2420	2419.2		
09/30/2018	18.6	33.2	18.6	33.2	7.6	6.9	579	579		
10/31/2018	0.3	26	0.3	26	7.5	7.1	2	2		
11/30/2018	10.8	15.8	10.8	15.8	7.5	7.3	488	20.32	28.1	
12/31/2018	11.7	23.6	11.7	23.6	7.5	6.2	5	5	19	
01/31/2019	2.09	23.6	1.45	23.6	8.2	6.6	1	1	18.3	
02/28/2019	11.3	22.2	11.3	22	10.5	8.7	89.5	141	9.4	
03/31/2019	14.4	17.3	14.4	17.3	7.4	7	1010	99.3	9.75	
04/30/2019	12.5	20.5	12.1	17	7.9	7.1	2420	1150	13.9	
05/31/2019	15.7	28.26	14.53	26.26	7.6	7.5	2419.6		16.2	
06/30/2019	5.64	6.54	5.64	6.54	7.6	7.5	1	3.4225	18.6	
07/31/2019	6.13	15.2	6.13	15.2	7.67	7.64	517	73.44	14.9	
08/31/2019	10.8	17.8	8.97	13.9	7.49	7.4	25.9	11.75		
09/30/2019	18	18.9	14.62	15.5	7.7	7.5	154	33.32		
10/31/2019	28.5	41.83	20.06	30.31	8	7.5	372		15.9	
11/30/2019	18.8	26.34	15.93	22.94	7.6	7.4	2420	60.9	13.4	
12/31/2019	14.3	20.27	10.4	15.21	9.2	7	2420	12.19	10.9	
01/31/2020	17.1	27.24	15.68	25	7.6	6.9	13.2	9.1	10.97	
02/29/2020	15.9	27.61	15	25.95	7.5	7	23.8	11.7	9.9	
03/31/2020	20	30.86	17.65	28.16	7.4	6.9	2419.6	442.4	11.9	
04/30/2020	21.6	36.39	19.35	30.31	7.3	6.6	2419	2419	13.08	
05/31/2020	20.2	33.19	16.53	30.44	7.4	6.9	2419	2419	7.13	
06/30/2020	22.6	37.13	19.57	32.15	7.4	6.9	2419	2419	7.15	
Average	8.2028377	15.786081	7.1648487	14.759396	7.5245	6.8916	554.68	282.98	15.1373103	
Minimum	0.057	0.16	0.057	0.16	6.7	6	0.18	0.01	0.6	
Maximum	101	89.8	24.9	89.8	10.5	8.7	2420	10659	28.1	
Count	154	148	152	149	150	165	158	166	145	
Std Dev	10.002907	13.987574	6.210766	13.362395	0.4589	0.3361	914.82	983.8	4.44356983	
CV	1.2194447	0.88607	0.8668384	0.9053484	0.061	0.0488	1.6493	3.4765	0.29355082	
95th Percentile	21.95	42.319	19.633	40.81	8.75	7.5	2420	2419	22.76	
5th Percentile	1	5.637	1	5.7875	7.1	6.3	1.54	1.714	7.21	
90th percentile	20.14	38.972	18.579	32.95	8	7.4	2420	1961.8	22.28	

B. Receiving Water Data

Low Flow Statistics for Shitike Creek

RESULTS: USGS 14093000 SHITIKE CREEK NEAR WARM SPRINGS, OR

File Edit View Help

All available data from Jan 1, 2005 through Dec 31, 2020 are included in analysis. Display Options: 14093000 Copy to Clipboard

Season defined as Jan 1 - Dec 31. Biological flow is calculated for full climatic year starting at Jan 1.

Seasonal Calculation?	No		
Season Or Year Start	1-Jan		
Season Or Year End	31-Dec		
Years Included in Calculations	2005~2020		
Start	2005		
End	2020		
Flow Statistic	Flow Value	Percentile	x-day avg. Excur. per 3 yr.
30B3	39.959	3.36%	0.8
Flow Statistic	Flow Value	Percentile	1-day Excur. per 3 yr.
1Q10	29.008	0.08%	0.2
7Q10	33.9	0.47%	0.4
30Q10	37.265	2.21%	0.8
30Q5	40.439	4.03%	1.2
Harmonic Mean	80.072	46.47%	N/A
Harmonic Mean, Adjusted	80.072	46.47%	N/A

Double-click on biological flow value (xBy column) to view excursion analysis result for a gage

pH Data for Shitike Creek

Warm Springs Museum monitoring station 1/6/2010 to 7/17/2017

Max Value	8.97
<u>95th Percentile</u>	<u>8.51</u>
5th Percentile	7.0

Temperature Data for Shitike Creek

Warm Springs Museum monitoring station 1/1/2015 to 7/17/2017

Max Value	23.8	deg C
<u>95th Percentile</u>	<u>21.2</u>	<u>deg C</u>
5th Percentile	3.6	deg C

Appendix C. Reasonable Potential and Effluent Limit Formulae

A. Reasonable Potential Analysis

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

1. Mass Balance

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

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

where,

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

discharge (1Q10, 7Q10 or 30B3)

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

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

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

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

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

Where:

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

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

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

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

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

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

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

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

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

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

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

2. Maximum Projected Effluent Concentration

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

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

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

where,

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

$$\text{confidence level} = 99\% = 0.99$$

and

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

Where,

- σ^2 = $\ln(\text{CV}^2 + 1)$
- Z_{99} = 2.326 (z-score for the 99th percentile)
- Z_{P_n} = z-score for the P_n percentile (inverse of the normal cumulative

$$CV = \frac{\text{distribution function at a given percentile}}{\text{coefficient of variation (standard deviation } \div \text{ mean)}}$$

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

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

where MRC = Maximum Reported Concentration

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

5. *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:

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

Some state and tribal water quality criteria for some metals are expressed as the dissolved fraction, but the Federal regulation at 40 CFR 122.45(c) requires that effluent limits be expressed as total recoverable metal. Therefore, the EPA must calculate a wasteload allocation in total recoverable metal that will be protective of the dissolved criterion. This is accomplished by dividing the WLA expressed as dissolved by the criteria translator, as shown in equation 12. The criteria translator (CT) is equal to the conversion factor, because site-specific translators are not available for this discharge.

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

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

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

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

where,

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

For ammonia, the Tribe’s chronic criterion is based on a 4-day averaging period, the Chronic Long Term Average (LTAc) is calculated as follows:

$$LTA_c = WLA_c \times e^{(0.5\sigma_4^2 - z\sigma_4)} \quad \text{Equation 15}$$

where,

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

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

6. Derive the maximum daily and average monthly effluent limits

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

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

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

where σ , and σ^2 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 95 th percentile probability basis)
Z_m	=	2.326 (z-score for the 99 th percentile probability basis)
n	=	number of sampling events required per month. If the AML is based on the LTA_c , i.e., $LTA_{\text{minimum}} = LTA_c$, the value of “n” should be set at a minimum of 4. In the case of ammonia, if the AML is based on the LTA_c , i.e., $LTA_{\text{minimum}} = LTA_c$, the value of “n” will also be set at 4 according to Tribal WQS.

C. Critical Low Flow Conditions

The low flow conditions of a water body are used to determine water quality-based effluent limits. In general, the Tribe’s water quality standards require criteria be evaluated at the following low flow receiving water conditions 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
<p>1. The 1Q10 represents the lowest one-day flow with an average recurrence frequency of once in 10 years.</p> <p>2. The 1B3 is biologically based and indicates an allowable exceedance of once every 3 years.</p>	

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 & Effluent Limit Calculations

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

Facility Name	Warm Springs WWTP	
Facility Flow (mgd)	0.87	
Facility Flow (cfs)	1.35	

Critical River Flows (CFS)	(IDAPA 58.01.02.03. b)	Annual Crit. Flows
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)	1Q10	29
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)	7Q10 or 4B3	34
Ammonia	30B3 or 30Q10/30Q5 (seasonal)	37
Human Health - Non-Carcinogen	Harmonic Mean Flow	80
Human Health - carcinogen	Harmonic Mean Flow	80
	DF at defined percent of river flow allow	25%
	DF at defined percent of river flow allow	25%
	Notes:	5 th % at critical flows
Receiving Water Data	Hardness, as mg/L CaCO ₃	= 100 mg/L
	Temperature, °C	95 th percentile
	pH, S.U.	95 th percentile

Pollutants of Concern			AMMONIA, default: cold water, fish early life stages present
Effluent Data	Number of Samples in Data Set (n)		154
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)		1.219
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C _e)		21,950
	Calculated 50 th % Effluent Conc. (when n>10), Human Health Only		
Receiving Water Data	90 th Percentile Conc., µg/L - (C _r)		0
	Geometric Mean, µg/L, Human Health Criteria Only		
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	1,900
	Aquatic Life Criteria, µg/L	Chronic	260
	Human Health Water and Organism, µg/L		--
	Human Health, Organism Only, µg/L		--
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute	
		Chronic	
Percent River Flow Default Value = 25%	Aquatic Life - Acute	1Q10	25%
	Aquatic Life - Chronic	7Q10 or 4B3	
Calculated Dilution Factors (DF) (or enter Modeled DFs)	Aquatic Life - Acute	1Q10	6.4
	Aquatic Life - Chronic	7Q10 or 4B3	
Human Health - Non-Carcinogen	Human Health - Non-Carcinogen	30B3 or 30Q10/30Q5	7.9
	Human Health - Carcinogen	Harmonic Mean	
	Human Health - Carcinogen	Harmonic Mean	
	Human Health - Carcinogen	Harmonic Mean	

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2 = \ln(CV^2 + 1)$	0.954
P_n	$= (1 - \text{confidence level})^{1/n}$, where confidence level = 99%	0.971
Multiplier (TSD p. 57)	$= \exp(z\sigma - 0.5\sigma^2) / \exp[\text{normsinv}(P_n)\sigma - 0.5\sigma^2]$, where 99%	1.5
Statistically projected critical discharge concentration (C _e)		33326
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone (note: for metals, concentration as dissolved using conversion factor as translator)	Acute	5216
	Chronic	4206
Reasonable Potential to exceed Aquatic Life Criteria		YES

Aquatic Life Effluent Limit Calculations

Number of Compliance Samples Expected per month (n)		4	
n used to calculate AML (if chronic is limiting then use min=4 or for ammonia min=30)			
LTA Coeff. Var. (CV), decimal (Use CV of data set or default = 0.6)		1.219	
Permit Limit Coeff. Var. (CV), decimal (Use CV from data set or default = 0.6)		1.219	
Acute WLA, ug/L	$C_a = (\text{Acute Criteria} \times MZ_c) - C_r \times (MZ_c - 1)$	Acute	12,138
Chronic WLA, ug/L	$C_c = (\text{Chronic Criteria} \times MZ_c) - C_r \times (MZ_c - 1)$	Chronic	2,060
Long Term Ave (LTA), ug/L	$WLA_a \times \exp(0.5\sigma^2 - z\sigma)$, Acute	99%	2,079
(99 th % occurrence prob.)	$WLA_c \times \exp(0.5\sigma^2 - z\sigma)$; ammonia n=30, Chronic	99%	653
Limiting LTA, ug/L	used as basis for limits calculation		653
Applicable Metals Criteria Translator (metals limits as total recoverable)			
Average Monthly Limit (AML), ug/L, where % occurrence prob =	95%	1,404	
Maximum Daily Limit (MDL), ug/L, where % occurrence prob =	99%	3,811	
Average Monthly Limit (AML), mg/L		1.4	
Maximum Daily Limit (MDL), mg/L		3.8	
Average Monthly Limit (AML), lb/day		10	
Maximum Daily Limit (MDL), lb/day		28	

Appendix E. Endangered Species Act

A. Overview

As discussed in Section H of this fact sheet, Section 7 of the Endangered Species Act requires federal agencies to consult with USFWS and NOAA Fisheries if there are potential effects a federal action may have on threatened and endangered species. The US Fish and Wildlife Service in a letter dated November 25th, 2020 identified the bull trout *Salvelinus confluentus*, a federally listed threatened species, may occur within the Warm Springs WWTP's discharge location. In addition, the NOAA Fisheries Protected Resource Application accessed November 25th, 2020 identified Shitike Creek as a migrational corridor for Middle Columbia steelhead *Oncorhynchus mykiss*. A summary of threatened and endangered species located in the vicinity of the discharge is summarized below.

B. Species List

USFWS Species and Critical Habitat

- Bull trout *Salvelinus confluentus* listed threatened
- Bull Trout Critical Habitat

NOAA Fisheries Species and Critical Habitat

- Middle Columbia steelhead *Oncorhynchus mykiss* (migrational corridor)

C. Potential Impacts on Listed Species

The U.S. Fish and Wildlife Service Bull Trout Recover Plan identified causes of the bull trout listing. They are historical habitat loss and fragmentation, interaction with nonnative species, fish passage issues, drought and wildfire impacts, and invasive predatory fish species (USFWS 2015). Similar causes were identified for Middle Columbia steelhead. No sewage treatment plant is identified as a contributing factor to the decline in bull trout or Middle Columbia steelhead. In addition, there are site-specific factors supporting EPA's no effect determination. The Warm Springs WWTP is an extended aeration activated sludge facility capable of producing high quality effluent. The facility is required to meet stringent water quality based seasonal limits for BOD₅ and TSS, as well as year-round water quality-based criteria for ammonia. The facility utilizes ultraviolet disinfection, and the discharge location is in a swiftly flowing portion of Shitike Creek ensuring rapid complete mixing and dilution. Limits developed in this draft permit were calculated using parameters protective of salmonids and other cold-water aquatic species.

D. Conclusion

The EPA has determined that the discharge proposed by this draft permit will have no effect on bull trout, bull trout critical habitat, or migration of Middle Columbia steelhead.

E. References

National Marine Fisheries Service. 2009. Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan. NW Region.

<https://www.salmonrecovery.gov/Files/RecoveryPlans/mid-c-plan.pdf>

U.S. Fish and Wildlife Service. 2015. Recovery Plan for the Coterminous United States Population of Bull Trout (*Salvelinus confluentus*). Portland, Oregon.
https://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/Final_Bull_Trout_Recovery_Plan_092915.pdf

U.S. Fish and Wildlife Service. 2010. Revised Designation of Critical Habitat for bull Trout in the Coterminous United States. Federal Register Vol. 75 No. 200. Pages 63898 – 64070.
<https://www.federalregister.gov/documents/2010/10/18/2010-25028/endangered-and-threatened-wildlife-and-plants-revised-designation-of-critical-habitat-for-bull-trout>

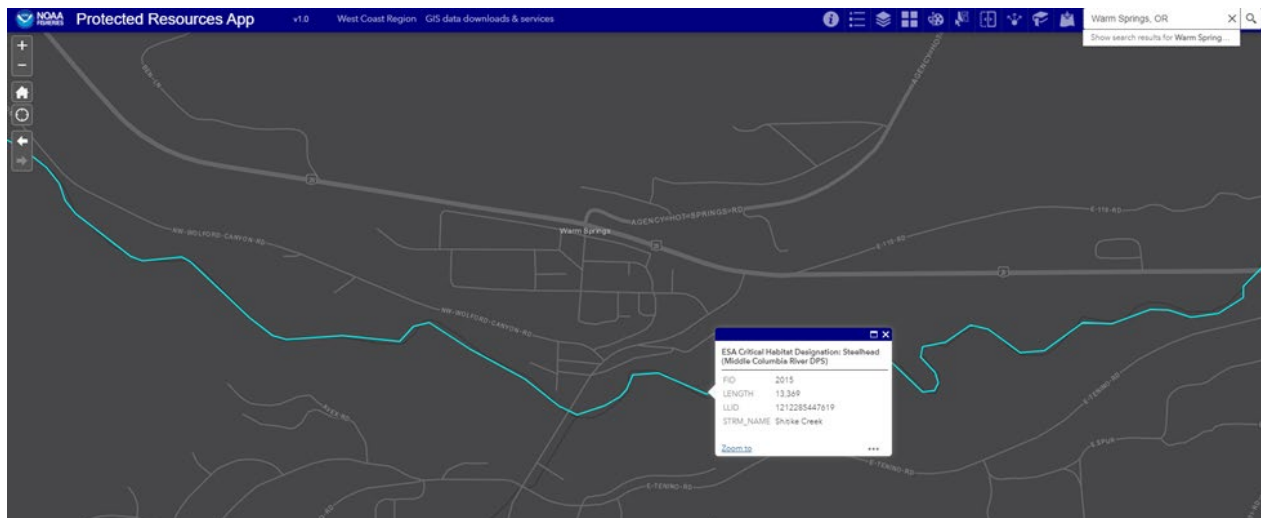
Appendix F. Essential Fish Habitat Assessment

Pursuant to the requirements for Essential Fish Habitat (EFH) assessments, this appendix contains the following information:

- Listing of EFH Species in the Facility Area
- Description of the Facility and Discharge Location
- The EPA’s Evaluation of Potential Effects to EFH

A. Listing of EFH Species in the Facility Area

According to NOAA Fisheries, the receiving water is a migrational corridor for Middle Columbia steelhead *Oncorhynchus mykiss*, a federally listed threatened species.



B. Description of the Facility and Discharge Location

The activities and sources of wastewater at the Warm Springs WWTP are described in detail in Section C and Appendix A of this fact sheet. The location of the outfall is described in Section D (“Receiving Water”).

C. The EPA's Evaluation of Potential Effects to EFH

Water quality is an important component of aquatic life habitat. NPDES permits are developed to protect water quality in accordance with state water quality standards. The standards protect the beneficial uses of the waterbody, including all life stages of aquatic life. The development of permit limits for an NPDES discharger includes the basic elements of ecological risk analysis. The underlying technical process leading to NPDES permit requirements incorporates the following elements of risk analysis:

7. *Effluent Characterization*

Characterization of the Warm Springs WWTP's effluent was accomplished using a variety of sources, including:

- Permit application monitoring
- Permit compliance monitoring
- Statistical evaluation of effluent variability
- Quality assurance plans and evaluations

8. *Identification of Pollutants of Concern and Threshold Concentrations*

The pollutants of concern include pollutants with aquatic life criteria in the Tribe's water quality standards. Threshold concentrations are equal to the numeric water quality criteria for the protection of aquatic life. No other pollutants of concern were identified by NMFS.

9. *Exposure and Wasteload Allocation*

Analysis of the transport of pollutants near the discharge point with respect to the following:

- Mixing zone policies in the Tribe's water quality standards
- Dilution modeling and analysis
- Exposure considerations (e.g., prevention of lethality to passing organisms)
- Consideration of multiple sources and background concentrations

10. *Statistical Evaluation for Permit Limit Development*

Calculation of permit limits using statistical procedures addressing the following:

- Effluent variability and non-continuous sampling
- Fate/transport variability
- Duration and frequency thresholds identified in the water quality criteria

11. *Monitoring Programs*

Development of monitoring requirements, including:

- Compliance monitoring of the effluent
- Ambient monitoring

12. Protection of Aquatic Life in NPDES Permitting

EPA's approach to aquatic life protection is outlined in detail in the *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001, March 1991). EPA and states evaluate toxicological information from a wide range of species and life stages in establishing water quality criteria for the protection of aquatic life.

The NPDES program evaluates a wide range of chemical constituents (as well as whole effluent toxicity testing results) to identify pollutants of concern with respect to the criteria values. When a facility discharges a pollutant at a level that has a "reasonable potential" to exceed, or to contribute to an exceedance of, the water quality criteria, permit limits are established to prevent exceedances of the criteria in the receiving water (outside any authorized mixing zone).

13. Effects Determination

Since the proposed permit has been developed to protect aquatic life species in the receiving water in accordance with the Tribe's water quality standards, EPA has determined that issuance of this permit is will not adversely affect any EFH in the vicinity of the discharge. EPA will provide NMFS with copies of the draft permit and fact sheet during the public notice period. Any recommendations received from NMFS regarding EFH will be considered prior to reissuance of this permit.

Clean Water Act §401 Certification

for the

Application for Certification
Pursuant to Section 401 of the
Federal Clean Water Act

CERTIFICATION

Submitted by:

UNITED STATE ENVIRONMENTAL PROTECTION AGENCY

**NPDES PERMIT NO. OR0032638
("permit")**

For the
Confederated Tribes of Warm Springs,
WASTEWATER TREATMENT PLANT: Warm Springs, OR 97761
("Permittee")

Pursuant to Tribal Ordinances 45 and 80
& Tribal Code Chapters 433 and 479

Prepared by:
**Tribal Environmental Office
Bureau of Natural Resources
Warm Springs, Oregon 97761**

For:
THE WATER CONTROL BOARD
Confederated Tribes of Warm Springs Reservation of Oregon

APRIL 19, 2021

Clean Water Act §401 Certification

This is the Certification to the Environmental Protection Agency
Regarding the NPDES PERMIT for
**The Warm Springs Wastewater Treatment Plant, on Shitike Creek, Tributary
to the Deschutes River, Oregon**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the “Act”, EPA is requesting a Certification for the Wastewater Treatment Plant request to discharge at the following locations:

Outfall	Receiving Water	Latitude	Longitude
001	Shitike Creek	44.761912 North	121.257757 West

in accordance with discharge points, effluence limitations, monitoring requirements and other conditions set forth in their Final NPDES Permit.

Based on the application and agency comments and other information submitted to the Confederated Tribes of the Warm Springs Reservation (“Tribe” or “CTSWS”) Water Control Board (“WCB”), and pursuant to §401 of the Clean Water Act and Tribal Ordinances 45, 74, 80 and 81, the WCB is willing to conditionally approve the application for certification. The WCB has determined that compliance with the certification conditions contained herein will maintain the facility consistent with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, Tribal water quality standards, and other appropriate requirements of Tribal law related to point source discharge into waters of the United States.

In accordance with Tribal Ordinance 81 and Warm Springs Tribal Code Chapter 433, the Permittee, if dissatisfied with the conditions of this certification, may request a hearing before the WCB or a hearings officer designated by the WCB. Such request for a hearing must be made in writing to the Chairman of the Water Control Board within 20 days of the date of mailing of this certification. Any hearing will be conducted pursuant to the rules of the Tribal Council.

This certification is valid for the Permittee only and is not transferable without prior approval of the Tribal Council or its designated representative, in accordance with Ordinance 81, 433.070(7).

Certification Conditions

The Tribal Water Code states “Ownership of water carries the responsibility to maintain water quality so that after use it is essentially as good as before use. In addition, the water resource must be preserved and quality maintained for future generations who live and make use of the reservation and its resources. The Primary objective in regards to water quality is to maintain excellent quality and purity of all waters that are on, cross the reservation, or are on reservation borders.

These standards of purity will protect and conserve public health, recreational enjoyment of people, economic and industrial development of the reservation, protection of human life and property, and conservation of plant, aquatic, and animal life.”

I. Limitations and Monitoring Requirements

Tribal Ordinance 80 established specific water quality standards for reservation waters.

Upon EPA’s issuance of a new NPDES Permit for the Wastewater Treatment Plant, the Permittee shall comply with the following provisions related to water quality standards and other appropriate requirements of Tribal law:

A. Discharge Authorization

During the effective period of the permit, the Permittee is authorized to discharge pollutants from the outfalls specified herein to Shitike Creek, within the limits and subject to the conditions set forth in the EPA issued NPDES Permit No. OR0032638. The permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring

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

Table 1. Effluent Limitations and Monitoring Requirements

Parameter	Units	Effluent Limitations			Monitoring Requirements			
		Average Monthly	Average Weekly	Maximum Daily	Sample Location	Sample Frequency	Sample Type	
Parameters with Effluent Limits								
Biochemical Oxygen Demand (BOD ₅) April 1 – October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	73	109	--			Calculation ¹	
Biochemical Oxygen Demand (BOD ₅) November 1 – March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	218	327	--			Calculation ¹	
Biochemical Oxygen Demand (BOD ₅) Percent Removal	%	85% (minimum)	--	--	--	1/month	Calculation ²	
Total Suspended Solids (TSS) April 1 – October 31	mg/L	10	15	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	73	109	--			Calculation ¹	
Total Suspended Solids (TSS) November 1 – March 31	mg/L	30	45	--	Influent and Effluent	1/week	24-hour composite	
	lbs/day	218	327	--			Calculation ¹	
TSS Percent Removal	%	85% (minimum)	--	--	--	1/month	Calculation ²	
<i>E. coli</i> ³	CFU/100ml	126	--	406 (instant max) ⁴	Effluent	5/month	Grab	
Total Ammonia (as N) (Interim Compliance Schedule)	mg/L	2.4	--	6.8 ⁴	Effluent	1/week	24-hour composite	
	lbs/day	17.4	--	49.3			Calculation ¹	
Total Ammonia (as N) ⁶	mg/l	1.4	--	3.8 ⁴	Effluent	1/week	24-hour composite	
	lbs/day	10.2	--	27.6			Calculation ¹	
pH	std units	Between 6.5 and 8.5			Effluent	1/week ⁵	Grab	
Report Parameters								
Temperature	°C	--	--	Report	Effluent	1/week	Grab	
Flow	mgd	Report	--	Report	Effluent	1/month	Grab	
Floating, Suspended, or Submerged Matter	--	See Paragraph 1.B.2					1/month	Visual Observation
Notes								
<p>1. Loading (in lbs/day) is calculated by multiplying the concentration (in mg/L) by the corresponding flow (in mgd) for the day of sampling and a conversion factor of 8.34. For more information on calculating, averaging, and reporting loads and concentrations see the <i>NPDES Self-Monitoring User Guide</i> (EPA 833-B-85-100, March 1985).</p> <p>2. Percent Removal. The monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month using the following equation:</p> $\frac{(\text{average monthly influent concentration} - \text{average monthly effluent concentration})}{\text{average monthly influent concentration}} \times 100$ <p>Influent and effluent samples must be taken over approximately the same time period.</p> <p>3. The average monthly <i>E. Coli</i> bacteria counts must not exceed a geometric mean of 126/100 ml based on the minimum of five samples taken every 3 – 7 days within a calendar month. See Part IV of this certification for a definition of geometric mean.</p>								

4. Reporting is required within 24 hours of a maximum daily limit or instantaneous maximum limit violation. See Paragraphs I.B.3 and Part III G of this certification.
5. Samples must be taken on different days.
6. Total Ammonia (as N) concentration and mass limits are effective 60 months following the effective date of the permit. This date is at the end of a 5-year Compliance Schedule. See Part II. C for more information. Until final concentrations and mass limits are effective on this date, an interim limit has been established. The interim limit is effective the first day of permit issuance.

2. Narrative limitations for floating, suspended or submerged matter:
 - a) The permittee must not discharge floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses.
 - b) The permittee must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water. The permittee must maintain a written log of the observation which includes the date, time, observer, and whether there is presence of floating, suspended or submerged matter. The log must be retained and made available to EPA and the WCB upon request.
3. Temperature data must be recorded using a micro-recording temperature device known as a thermistor. Set the recording device to record at one-hour intervals. Report the following temperature data on the DMR: monthly instantaneous maximum, maximum daily average, seven-day running average of the daily instantaneous maximum.
4. Use the temperature device manufacturer's software to generate (export) an Excel or electronic ASCII text file. The file must be submitted annually to the EPA by January 31 for the previous monitoring year along with the placement log. The placement logs should include the following information for both thermistor deployment and retrieval: date, time, temperature device manufacturer ID, location, depth, whether it measured air or water temperature, and any other details that may explain data anomalies. The permittee must report within 24 hours any violation of the maximum daily limits for the following pollutants: ammonia and *E. coli*. Violations of all other effluent limits are to be reported at the time that discharge monitoring reports are submitted (See Parts III.B. *Reporting of Monitoring Results* and III.G. *Twenty-four Hour Notice of Noncompliance Reporting* of this permit).
5. The permittee must not use chlorine for disinfection or elsewhere in the treatment process.

6. The permittee must collect samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.
7. For all effluent monitoring, the permittee must use sufficiently sensitive analytical methods which meet the following:
 - a) Parameters with an effluent limit. The method must achieve a minimum level (ML) less than the effluent limitation unless otherwise specified in *Table 1 Effluent Limitations and Monitoring Requirements*.
 - b) Parameters that do not have effluent limitations.
 - (i) The permittee must use a method that detects and quantifies the level of the pollutant, or
 - (ii) The permittee must use a method that can achieve a maximum ML less than or equal to those specified in Appendix A.
 - c) For parameters that do not have an effluent limit, the permittee may request different MLs. The request must be in writing and must be approved by EPA.
 - d) See also Part III.C *Monitoring Procedures*
8. For the purposes of reporting on the DMR for a single sample, if a value is less than the MDL, the permittee must report “less than {numeric value of MDL}” and if a value is less than the ML, the permittee must report “less than {numeric value of the ML}.”
9. For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report “less than {numeric value of the MDL}” and if the average value is less than the ML, the permittee must report “less than {numeric value of the ML}.” If a value is equal to or greater than the ML, the permittee must report and use the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Surface Water Monitoring Report (SWMRP)

The permittee must conduct surface water monitoring. Surface water monitoring must start 180 days after the effective date of the permit and continue for as long as the permit remains in effect. The program must meet the following requirements.:

1. Monitoring stations must be established in Shikite Creek at the following locations:
 - a. Above the influence of the facility's discharge at a point representative of stream water quality
 - b. Below the facility's discharge, at a point where the effluent and Shitike Creek are completely mixed. Upstream and downstream sampling of all parameters in Table 2 must occur on the same day and as close to the same time as practicable.
2. To the extent practicable, surface water sample collection must occur on the same date as effluent sample collection.
3. The flow rate must be measured as near as practicable to the time that other ambient parameters are sampled.
4. Samples must be analyzed for parameters listed in Table 2. Ambient Surface Water Monitoring Requirements.
5. For all surface water monitoring, the permittee must use sufficiently sensitive analytical methods which meet the following:
 - a. The method must detect and quantify the level of pollutant, or
 - b. The permittee must use a method that can achieve MLs less than or equal to those specified in Appendix A. The permittee may request different MLs. The request must be in writing and approved by the EPA and WCB.

Table 2. Ambient Surface Water Monitoring Requirements

Parameter	Units	Frequency	Sample Type
Flow	cfs	Monthly	Grab
Total Ammonia as N	mg/L	Monthly	Grab
Temperature	C	Monthly	Grab
pH	standard units	Monthly	Grab

6. Quality assurance/quality control (QA/QC) plans for all the monitoring must be documented in the Quality Assurance Plan required under Part II.B.
7. Submission of Ambient Surface Water Monitoring
 - a. Ambient surface water monitoring results must be reported on the monthly DMR.

II. Special Conditions

A. Operations and Maintenance Plan

In addition to the requirements specified in Part IV.E, *Proper Operation and Maintenance*, the permittee must develop and implement an Operations and Maintenance (O&M) Plan for the wastewater treatment facility. Any existing O&M Plan may be modified for compliance with this section. Any changes occurring in the operation of the plant must be reflected within the O&M Plan.

Within 180 days of the effective date of the permit, the permittee must submit written notice to EPA and the WCB at the O&M Plan has been developed and implemented.

The permittee may submit the written notification as an electronic attachment to the DMR. The file name of the electronic attachment must be as follows: YYYY_MM_DD_OR0032638_O&M_50108, where YYYY_MM_DD is the date that the permittee submits the written notification.

B. Quality Assurance (QA) Plan

1. Within 180 days of the effective date of NPDES Permit No. OR0032638, the Permittee must submit written notice to the EPA and the Confederated Tribes of Warm Springs WCB that the QA Plan has been developed and implemented. The plan must be retained on site and made available to the EPA and/or the WCB upon request. Any existing QA Plans may be modified to meet this requirement.
2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *EPA Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA-QA-G-5). The QAP must be prepared in the format that is specified in these documents.
3. At a minimum, the QA Plan must include the following:
 - a. Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantification limits for each target compound, type

and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.

- b. Maps indicating the location of each sampling point.
 - c. Qualification and training of personnel.
 - d. Name, address, and telephone number of the laboratory used by or proposed to be used by the permittee.
4. The Permittee must amend the QA plan whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QA plan.
 5. Copies of the QA plan must be kept on site and made available to the EPA and/or the WCB upon request.

C. Ammonia Schedule of Compliance

1. The permittee must achieve compliance with the ammonia limitations of Part I.B, Table 1. (Effluent Limitations and Monitoring Requirements) within 60 months of the effective day of the permit.
2. Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks and reports listed in Table 3.

Table 3. Tasks Requires Under the Schedule of Compliance for Ammonia

Task No.	Due By	Task Activity
1	12 months from the effective date of the permit.	<p>Facility Planning The permittee must develop a facility plan that evaluates alternatives to meet the final effluent limitations for ammonia* and select a preferred alternative. The facility plan will include a cost estimate for design and construction of the preferred alternative.</p> <p>Deliverable: The permittee must submit the completed facility plan to EPA and the WCB.</p>
2	18 months from the effective date of the permit	<p>Facility Funding The permittee must acquire the funds necessary to complete all the facility upgrades/changes in facility operations outlined in the facility plan required to meet the final effluent limitations for ammonia by the end of this compliance schedule.</p> <p>Deliverable: The permittee must submit written notice to the EPA and the WCB that the facility funding has been acquired.</p>
3	30 months for the effective date of the permit.	<p>Final Design The permittee must complete design of the selected alternative for meeting the final ammonia effluent limitations.</p> <p>Deliverable: The permittee must submit written notice to the EPA and the WCB that the final design is complete</p>

Task No.	Due By	Task Activity
4	36 months for the effective date of the permit.	<p>Award Bid for Construction Deliverable: The permittee must provide written notice to the EPA and the WCB that the bid award is complete</p>
5	48 months for the effective date of the permit.	<p>Construction Complete The permittee must complete construction to achieve the ammonia effluent limitations. Deliverable: The permittee must submit a construction completion report to the EPA and the WCB.</p>
6	60 months for the effective date of the permit.	<p>Meet Effluent Limitations for Ammonia Training and optimization of process such that compliance with the ammonia effluent limitations are achieved. Deliverable: The permittee must provide written notice to the EPA and the WCB that the effluent limitations are achieved.</p>
<p>*Note – if compliance with the final ammonia effluent limits is achieved sooner than the listed deadlines, the permittee may submit the supporting documentation earlier than the dates listed above. The permittee must provide written notice to EPA and the WCB that the ammonia limitations are achieved.</p>		

3. The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the ammonia effluent limitations. At a minimum, the annual report must include:
 - a. An assessment of the previous year of ammonia data and comparison to the effluent limitations.
 - b. A report on progress made towards meeting the effluent limitations, including the applicable deliverable required in Table 3, as well as further actions and milestones targeted for the upcoming year.
4. The first annual report of progress is due 12 months after the effective day of the permit and annually thereafter, until compliance with the ammonia effluent limits is achieved. See also Part III.K, *Compliance Schedules*.

D. Facility Planning Requirement

1. Design Criteria: The maximum design flows and waste loads for the permitted facility are:

Table 4. Facility Design Criteria

Facility Design Criteria	Value	Units
Maximum Monthly Flow	0.87	mgd
Maximum Monthly Influent BOD ₅ Loading	218	lbs/day
Maximum Monthly Influent TSS Loading	218	lbs/day
Notes:		
Maximum monthly flow means the largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.		
Maximum monthly loading means the largest loading anticipated to occur during a continuous 30-day period, expressed as a daily average (for BOD ₅ or TSS).		

2. Plan for maintaining adequate capacity
 - a. Condition to trigger plan development
 - i. Each month, the permittee must record the average daily flow, BOD₅ loading, and TSS loading entering the facility for that month.
 - ii. When the actual flow for any two months during a 12-month period exceed the facility planning values listed in Table 5, the permittee must develop a new or updated plan and schedule for continuing to maintain capacity and maintain compliance with effluent limits.
 - b. Submittal. The plan must be submitted to the EPA and the WCB within 18 months of exceeding the trigger.
 - c. Plan and schedule content. The plan and schedule must identify the actions necessary to maintain adequate capacity and to meet the limits and requirements of the permit. The permittee must consider the following topics and actions in the plan:
 - i. Analysis of the present design and proposed process modifications.
 - ii. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system.
 - iii. Limits on future sewer extensions or connections or additional waste loads.
 - iv. Modifications or expansion of facilities
 - v. Reduction of industrial or commercial flows or waste loads.

E. Industrial Waste Management

1. The permittee must not authorize the introduction of pollutants that would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.
2. The permittee must not authorize, under any circumstances, the introduction of the following pollutants to the POTW from any sources of nondomestic discharge:
 - a. Any pollutant which may cause Pass Through or Interference;
 - b. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 60° C (140° F) using the test methods specified in 40 CFR 261.12;
 - c. Pollutants which will cause corrosive structural damage to the POTW, but in no case indirect discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such indirect discharges;
 - d. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;
 - e. Any pollutant, including oxygen demanding pollutants (e.g. BOD₅), released in an indirect discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;
 - f. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40° C (104° F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
 - g. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through at the POTW;
 - h. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
 - i. Any trucked or hauled pollutants, except at discharge points designated by the POTW;
 - j. Any specific pollutant which exceeds a local limitation established by the permittee in accordance with the requirement of 40 CFR 403.5© and (d).
3. The permittee must develop and maintain a master list of the industrial users introducing pollutants to the POTW. Industrial user means any source of indirect discharge for a non-domestic source. This list must identify:

- a. Names and addresses of all industrial users;
 - b. Which industrial users are significant industrial users (SIUs)(See Paragraph 5 of this Part);
 - c. Which SIUs are subject to categorical pretreatment standards (see 40 CFR 405-471);
 - d. Which standards are applicable to each industrial user (if any);
 - e. Which industrial users are subject to local standards that are more stringent than the categorical pretreatment standards; and
 - f. Which industrial users are subject only to local requirements.
4. The permittee must submit this list, along with a summary description of the sources and information gathering methods used to develop this list, to EPA and the WCB within two years following the effective date of the NPDES permit.
 5. For the purposed of this list development, the term IU means:
 - a. All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and
 - b. Any other industrial use that:
 - i. Discharges an overage of 25,000 gallons per day or more of process wastewater to the POTW(excluding sanitary, noncontact cooling, and boiler blowdown wastewater);
 - ii. Contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
 - iii. Is designated as such by EPA, WCB, or the permittee on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violation of any Pretreatment Standard or requirement in accordance with 40 CFR 403.8(f)(6).

F. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the permit. At a minimum the plan must include mechanisms to:
 - a. Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;
 - b. Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

- c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
 - d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and
 - e. Proved emergency operations.
2. The permittee must submit written notice to EPA and the WCB that the plan has been developed and implemented within 180 days of the effective date of the permit. Any existing emergency response and public notification plan may be modified for compliance with this section.
 3. The permittee may submit the written notification as an electronic attachment to the TEO and WCB.

III. Monitoring, Recording, and Reporting Requirements

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

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

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

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

B. Reporting of Monitoring Results

1. The Permittee must submit monitoring data and other reports to the WCB and TEO.
2. Permittee must submit copies of the DMR and other reports to the Confederated Tribes of Oregon WCB and TEO no later than the 20th of the month following the completed reporting period at the following addresses.

The Confederated Tribes of Warm Springs Reservation of Oregon
Water Control Board

PO Box C
Warm Springs, Oregon, 97761

The Confederated Tribes of Warm Springs Reservation of Oregon
Tribal Environmental Office
PO Box C
Warm Springs, Oregon 97761

3. The Permittee must sign and certify all DMRs, and other reports.

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless another method is required under 40 CFR subchapters N or O, or other test procedures have been specified in the permit or approved by EPA as an alternate test procedure under 40 CFR 136.5.

D. Additional Monitoring by Permittee

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

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

E. Records Contents

Records of monitoring information must include:

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

F. Retention of Records

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

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The Permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the Permittee becomes aware of the circumstances:
 - a. Any noncompliance that may endanger health or the environment;
 - b. Any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F of NPDES Permit No. OR0032638, *Bypass of Treatment Facilities*);
 - c. Any upset that exceeds any effluent limitation in the permit (See Part IV.G of NPDES Permit No. OR0032638, *Upset Conditions*); or
 - d. Any violation of a maximum daily discharge limitation for applicable pollutants identified by Table 1 of this certification (*Effluent Limitations and Monitoring Requirements*).
 - e. Any overflow prior to the treatment works over which the permittee has ownership or has operational control. An overflow is a spill, release, or diversion of municipal sewage including:
 - i. An overflow that results in a discharge to tribal waters; and
 - ii. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately-owned sewer or building lateral) that does not reach tribal waters.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1 above. The written submission must contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
 - d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
 - e. If the noncompliance involves an overflow, the written submission must contain:
 - i. The location of the overflow;
 - ii. The receiving water (if there is one);
 - iii. An estimate of the volume of the overflow;
 - iv. A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);
 - v. The estimated date and time when the overflow began and stopped or will be stopped;
 - vi. The cause or suspected cause of the overflow
 - vii. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;

- viii. An estimate of the number of persons who came into contact with the wastewater from the overflow; and
 - ix. Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.
3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.
 4. Reports must be submitted in paper form to the addresses in Part III.B. ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

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

I. Public Notification

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B of this certification, *Reporting of Monitoring Reports* are submitted. The reports must contain the information listed in Paragraph III.G.2 of this certification.

J. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and the Confederated Tribes of the Warm Springs Water Control Board in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 and 306 of the Act if it were directly discharging those pollutants; and
2. Any substantial change in the volume or character of pollutants being introduced in the POTW by a source introducing pollutants into the POTW at the time of issuance of the certification.
3. For the purposes of this section, adequate notice must include information on:
 - a. The quality and quantity of effluent to be introduced into the POTW, and

- b. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
4. The Permittee must submit the notification to the Director of the Water Division and the Tribal Environmental Office at the following addresses:

US EPA Region 10
Attn: NPDES Permits Unit Manager
1200 Sixth Avenue
Suite 155 OWW-191
Seattle, Washington 98101-3140

The Confederated Tribes of Warm Springs Reservation of
Oregon
Tribal Environmental Office
PO Box C
Warm Springs, Oregon 97761

K. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this certificate must be submitted no later than 14 days following each schedule date.

IV. General Provisions

A. Permit Actions

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

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this certification after the expiration date of this certification, the permittee must apply for and obtain a new certification. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the WCB, the permittee must submit a new application at least 180 days before the expiration date of this certification.

C. Duty to Provide Information

The permittee must furnish to the Tribe WCB or TEO, within the time specified in the request, any information that the Tribe WCB or TEO may request to determine compliance with this certificate. The permittee must

also furnish to the Tribe, upon request, copies of records required to be kept by this certificate.

D. Other Information

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

E. Signatory Requirements

All applications, reports or information submitted to the EPA and the Confederated Tribes of Warm Springs WCB must be signed and certified as follows.

1. All permit applications must be signed by a principal executive officer or ranking elected official.
2. All reports required by the certification and other information requested by the EPA or the WCB must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - c. The written authorization is submitted to the Director of the Enforcement and Compliance Assurance Division and the Confederated Tribes of Warm Springs WCB.
3. Changes to authorization. If an authorization under paragraph 2 of this part is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph 2 of this part must be submitted to the Director of Enforcement and Compliance Assurance Division and the Confederated Tribes of Warm Springs WCB prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this part must make the following certification:

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

am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

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

G. Inspection and Entry

The Permittee must allow the authorized representatives of the WCB and TEO (including an authorized contractor acting as a representative), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the certificate;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the certificate;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the certificate; and
4. Sample or monitor at reasonable times, for the purpose of assuring certificate compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

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

I. Transfers

This certification is not transferable to any person except after written notice to the Director of the Water Division or the Confederated Tribes of Warm Springs WCB as specified in Part III.J.4. The Director or the tribes may require modification or revocation and reissuance of the certification to change the name of the permittee and incorporate such other requirements

as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory).

J. Tribal Laws

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

The Tribal Council of the Confederated Tribes of Warm Springs has delegated the responsibility and accountability to implement the Policy Statements listed in Tribal Ordinance 80 and 81 to the Water Control Board. Therefore the WCB will be responsible for all decisions requiring the exercise of delegated authority from the Federal Environmental Protection Agency under the Federal Clean Water Act and for implementing Tribal Ordinances 45, 80 and 81.

V. Antidegradation Policy

With the implementation of the mitigation measures listed above, the WCB believes that overall water quality in and below the Project will be protected. Accordingly, the WCB believes that there is a reasonable assurance that plant operations, coupled with the mitigation measures listed above, will comply with the Tribal antidegradation policies. The WCB will require implementation of all monitoring and reporting to ensure compliance with the antidegradation policy.

VI. §401 Certification Modification

Subject to the provisions of Ordinance 80 and 81, the WCB may reconsider and add or alter conditions to the Certification as necessary to address changes in conditions or knowledge or to address any failure of conditions herein to protect water quality and beneficial uses. In accordance with the Clean Water Act Section 401, any added or altered condition shall, so long as it is in effect, become a condition of any federal license or permit that is thereafter issued for the Project. Ordinance 81 provides a mechanism for appropriate changes to the conditions established in this Certificate. With respect to an existing federal license or permit for the Project, the WCB may petition the federal agency to incorporate the added or altered condition in the federal license or permit.

VII. Project Changes, Repairs and Maintenance

- A. The Permittee must obtain the WCB review and approval before undertaking any change to the facility that might significantly affect water quality, including changes to operations and effluent flows.
- B. The Permittee must obtain the WCB review and approval before undertaking repair or maintenance activities that might significantly affect water quality.

The WCB may, at the Permittee's request, provide prior approval of such repair and maintenance activities on a periodic or ongoing basis.

- C. The Permittee will notify the TCB and TEO of all future changes in the facility or operation of the project

The Permittee has provided reasonable assurance that the plant will be managed and operated in a manner that will not violate applicable tribal water quality standards. The Water Control Board as the delegated authority of Tribal Council of the Confederated Tribes of the Warm Springs Reservation of Oregon has determined that compliance with the certification conditions contained herein will maintain the Project consistent with applicable provisions of Sections 301,302,303, 306, and 307 of the Federal Clean Water Act, Tribal water quality standards, and other appropriate requirements of Tribal law related to point source discharges into waters of the United States.

Based on the application, public and agency comments, the Evaluation Report and Findings, and other information submitted to the WCB, and pursuant to Section 401 of the federal Clean Water Act and Tribal Ordinances 45, 74, 80 and 81, the WCB hereby conditionally approves the application for certification.

**CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON
WATER CONTROL BOARD**



Warm Springs Water Control Board

4-19-21

Date

**CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON
TRIBAL ENVIRONMENTAL OFFICE**



RYAN SMITH SR., Manager

4/20/2021

Date

Appendix A – Minimum Level (ML) for Pollutants

The table below lists the maximum Minimum Level (ML) for pollutants not subject to concentration effluent limits in the permit. The permittee may request different MLs. The request must be in writing and must be approved by the WCB. If the permittee is unable to obtain the required ML in its effluent due to matrix effects, the permittee must submit a matrix-specific detection limit (MDL) and a ML to the WCB with appropriate laboratory documentation.

CONVENTAION PARAMETERS

Pollutant & CAS No. (if available)	Minimum Level (ML) µg/L unless specified
Biochemical oxygen demand	2 mg/L
pH	N/A
Temperature	+/- 0.2°C
Total ammonia (as N) (7664-41-7)	50
Total suspended solids	5 mg/L