ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

INDIVIDUAL PERMIT – DRAFT

Permit Number: AK0023213

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, this permit is issued under provisions of Alaska Statutes (AS) 46.03; the Alaska Administrative Code (AAC) as amended; and other applicable State laws and regulations. The

CITY & BOROUGH OF JUNEAU

is authorized to discharge from the Juneau-Douglas Wastewater Treatment Facility (WWTF) at 1540 Thane Road, Juneau, Alaska at the following location(s):

Outfall	**Receiving Water or Body**	**Latitude**	**Longitude**
001A	Gastineau Channel	58° 17’ 2” North	134° 23’ 13” West
Combined Sewer Outfall	**Receiving Water or Body**	**Latitude**	**Longitude**
N-11	Gastineau Channel	58° 18’ 21” North	134° 25’ 48” West
N-11.2	Gastineau Channel	58° 17’ 58” North	134° 24’ 24” West
N-15.1	Gastineau Channel	58° 16’ 38” North	134° 23’ 32” West

In accordance with the discharge point(s) effluent limitations, monitoring requirements, and other conditions set forth herein:

This permit and authorization shall become effective DRAFT

This permit and the authorization to discharge shall expire at midnight, DRAFT

The permittee shall reapply for a permit reissuance on or before DRAFT, 180 days before the expiration of this permit if the permittee intends to continue operations and discharge(s) at the facility beyond the term of this permit.

The permittee shall post or maintain a copy of this permit to discharge at the facility and make it available to the public, employees, and subcontractors at the facility.

DRAFT	DRAFT
Signature	Date
DRAFT	Program Manager
Printed Name	Title

TABLE OF CONTENTS

TABLES

APPENDICES

SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and/or submit to the Alaska Department of Environmental Conservation (DEC) during the term of this permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

Table 1- Schedule of Submissions

Location of Requirement	Submittal or Completion	Frequency	Due Date	Submit to[a]
Permit Section 3.1 Appendix A Section 3.2	Discharge Monitoring Report (DMR)	Monthly	Must be submitted electronically through the NetDMR system, on or before the 15th day of the following month.	NetDMR
Permit Section 1.3	Whole Effluent Toxicity (WET) Monitoring	As required	The permittee shall submit the results of the toxicity tests with the DMR following the month in which the results are received.	Compliance
Permit Section 1.5	Receiving Waterbody Monitoring	1/permit cycle	Submit receiving waterbody monitoring results with the application for permit reissuance.	Permitting
Permit Section 1.6.4	Combined Sewer Overflow (CSO) Annual Report	Annually	The report must be submitted no later than January 31st of each year following the effective date of the final permit.	Compliance
Permit Section 2.3	Industrial User Survey	1/permit cycle	Submit industrial user survey results with the application for permit reissuance.	Permitting
Appendix Section 1.3	Application for Permit Reissuance	1/permit cycle	180 days before expiration of the final permit	Permitting
Appendix A Section 3.4	Oral notification of noncompliance	As required	Within 24 hours from the time the permittee becomes aware of the circumstances of noncompliance	Compliance
Appendix A Section 3.4	Written notification of noncompliance	As required	Within 5 days after the permittee becomes aware of the circumstances	Compliance
Appendix A Section 3.5	Other Noncompliance Reporting	As required	At the time the permittee submits DMRs under Appendix A, Part 3.2.	Compliance

Note:
a. See Appendix A, 1.1 for addresses

1.0 LIMITATIONS AND MONITORING REQUIREMENTS

1.1 Discharge Authorization

1.1.1 During the effective period of this permit, the permittee is authorized to discharge pollutants from Outfall 001A specified herein to Gastineau Channel, within the limits and subject to conditions set forth herein. This permit authorizes discharge of only those pollutants resulting from facility processes, waste streams, and operations clearly identified in the permit application process.

1.2 Effluent Limits and Monitoring

1.2.1 The permittee must limit and monitor discharges from Outfall 001A as specified in Table 2. All values represent maximum effluent limits, unless otherwise indicated. The permittee must comply with effluent limitations in Table 2 at all times unless otherwise indicated, regardless of monitoring frequency or reporting required by other provisions of this permit.

1.2.2 Discharge shall not cause contamination of surface or ground waters, and shall not cause or contribute to a violation of Alaska Water Quality Standards AAC Title 18 (18 AAC 70), except if excursions are authorized in accordance with applicable provisions in 18 AAC 70.200 – 70.240 (e.g. variance, mixing zone).

1.2.3 The permittee must not discharge any floating solids, debris, sludge, deposits, foam, scum, or other residues that cause a film, sheen or discoloration on the surface of the receiving water or adjoining shorelines; cause leaching of toxic or deleterious substances; or cause a sludge, solid, or emulsion to be deposited beneath or upon the surface of the water, within the water column, on the bottom, or upon adjoining shorelines.

1.2.4 Influent samples must be collected prior to the waste stream flowing into the first treatment unit of the wastewater treatment system.

1.2.5 Effluent samples must be collected from the effluent stream after the last treatment unit before discharge into receiving waters

1.2.6 For all effluent monitoring, the permittee must use a sufficiently sensitive Environmental Protection Agency (EPA) approved test method that quantifies the pollutants to a level lower than applicable limits or water quality standards or use the most sensitive test method available, per Title 40 Code of Federal Regulations (CFR) §136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants), adopted by reference at 18 AAC 83.010(f).

1.2.7 For purposes of reporting on the DMR for a single sample, if a value is less than the method detection limit (MDL), the permittee must report "less than (<) {numeric value of MDL}" and if a value is less than the minimum level (ML) (also called a reporting limit (RL), practical quantification limit (PQL), or limit of quantitation (LOQ)), the permittee must report "less than (<) {numeric value of ML}."

1.2.8 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 MDL}" and if the average value is less than the ML, the permittee must report "less than (<) {numeric value of ML}." If a value is equal to or greater than the ML, the permittee must report and use the actual value.

1.2.9 Permittees have the option of taking more frequent samples than are required in the permit. These samples must be used for averaging if they are conducted using the Department-approved test methods (generally found in 18 AAC 70 and 40 CFR §136) and if the method detection limit is less than the effluent limit.

Table 2- Outfall 001A Effluent Limits and Monitoring Requirements

Parameter	Effluent Limits					Monitoring Requirements		
	Units [a]	Daily Minimum	Monthly Average	Weekly Average	Daily Maximum	Sample Location	Sample Frequency	Sample Type
Total Discharge Flow	mgd	N/A	2.76	N/A	6.0	Effluent	Continuous	Recording
Biochemical Oxygen Demand (BOD_5)	mg/L	N/A	30	45	60	Influent and Effluent [c]	1/Month	24-hour Composite [d]
	lbs/day [b]		691	1,036	1,381			Calculated
Total Suspended Solids (TSS)	mg/L	N/A	30	45	60	Influent and Effluent	1/Month	24-hour Composite
	lbs/day		691	1,036	1,381			Calculated
BOD_5 & TSS Minimum Percent (%) Removal	%	N/A	85	N/A	N/A	Influent and Effluent	1/Month	Calculated [e]
pH	SU	6.5	N/A	N/A	8.5	Effluent	5/Week	Grab
Temperature	° C	N/A	N/A	N/A	Report	Effluent	5/Week	Grab
Dissolved Oxygen (DO)	mg/L	2.0	N/A	N/A	17	Effluent	5/Week	Grab
Fecal Coliform (FC) Bacteria	FC/ 100 mL	N/A	200 [f]	400 [f]	800	Effluent	1/Week	Grab
Enterococci Bacteria	cfu/ 100 mL	N/A	N/A	N/A	Report	Effluent	1/Month [g]	Grab
Total Ammonia, as Nitrogen	mg/L	N/A	12	18	29	Effluent	1/Month	24-hour Composite
	lbs/day		276	414	668			
Copper, total recoverable	µg/L	N/A	N/A	N/A	Report	Effluent	1/Month	24-hour Composite

Footnotes:

a. Units: mgd = million gallons per day, mg/L = milligrams per liter, lbs/day = pounds per day, SU = standard units, °C= degrees Celsius, FC/100 mL = Fecal Coliform per 100 milliliters, cfu/100 mL = colony forming units per 100 milliliters, µg/L = micrograms per liter.

b. lbs/day = concentration (mg/L) x flow (mgd) x 8.34 (conversion factor)

c. Limits apply to effluent. Report average monthly influent concentration. Influent and effluent composite samples shall be collected during the same 24-hour period.

d. See Appendix C for definition

e. Minimum % Removal = [(monthly average influent concentration in mg/L - monthly average effluent concentration in mg/L) / (monthly average influent concentration in mg/L)] x 100. The monthly average percent removal must be calculated using the arithmetic mean of the influent value and the arithmetic mean of the effluent value for that month.

f. All FC bacteria average results must be reported as the geometric mean. When calculating the geometric mean, replace all results of zero, 0, with a one, 1. The geometric mean of "n" quantities is the "nth" root of the product of the quantities. For example, the geometric mean of 100, 200, and 300 is $(100 \times 200 \times 300)^{1/3} = 181.7$.

g. One sample shall be collected each month, May through September, on the same day as FC bacteria sample is collected.

1.3 Whole Effluent Toxicity Testing Requirements (WET)

The permittee must conduct chronic WET tests on effluent samples from Outfall 001A. Testing must be conducted in accordance with Sections 1.3.1 through 1.3.6.

1.3.1 The permittee must conduct annual toxicity tests on 24-hour composite effluent samples as described below.

1.3.2 Chronic Test Species and Methods

1.3.2.1 During the first year of discharge, the permittee must conduct larval development tests with a bivalve species, either *Crassostrea gigas* (Pacific oyster) or *Mytulis galloprovincialis* (blue mussel) depending on the availability of the bivalve, and fertilization tests with an echinoderm, either *Strongylocentrotus purpuratus* (purple sea urchin) or *Dendraster excentricus* (sand dollar), depending on the availability of the echinoderm. For all subsequent tests, testing shall be conducted using the more sensitive, either a bivalve or echinoderm, with species determined on availability.

1.3.2.2 If the permittee proposes an alternative species to be used for chronic toxicity testing, the permittee shall perform screening first and provide the results of the screening to DEC for review and written approval prior to implementing the use of the new test species.

1.3.2.3 Presence of chronic toxicity must be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA/600/R/95-136, August 1995).

1.3.2.4 Results must be reported in TUc where TUc =100/no observed effect concentration (NOEC). See Appendix C for a definition of NOEC.

1.3.3 Quality Assurance

1.3.3.1 The toxicity testing on each organism shall include a series of five test dilutions and a control. The series must include the instream waste concentration (IWC), two dilutions above the IWC, and two dilutions below the IWC. No concentration shall be greater than two times that of the next lower concentration. The IWC is the concentration of the effluent at the boundary of the mixing zone. The IWC for this discharge is estimated at 5% effluent.

1.3.3.2 The chronic toxicity trigger is defined as toxicity exceeding 20 TUc corresponding to receiving water dilution of 5% effluent.

1.3.3.3 All quality assurance criteria and statistical analyses used for chronic tests and reference toxicant tests must be in accordance with *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, (EPA/600/R/95-136, August 1995) and individual test protocols.

1.3.3.4 In addition to those quality assurance measures specified in the methodology, quality assurance procedures must be followed:

1.3.3.4.1 If organisms are not cultured in-house, concurrent testing with reference toxicants must be conducted. If organisms are cultured in-house, monthly

reference toxicant testing is sufficient. Reference toxicant tests must be conducted using the same test conditions as were used in the effluent toxicity tests.

1.3.3.4.2 If either one of the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, the permittee must re-sample and re-test within 14 days of receipt of the test results.

1.3.3.4.3 To the extent practicable, control and dilution water should be receiving water. If the dilution water used is different from the culture water, a second control using culture water shall also be used. For purposes of this paragraph, "receiving water" means water collected from Gastineau Channel, outside of the influence of the permittee's discharge. In no case shall water that has not met test acceptability criteria be used as dilution water.

1.3.4 Accelerated Testing

1.3.4.1 If toxicity is greater than 20 TUc in any test, the permittee shall conduct six biweekly (every two weeks) tests over a 12-week period. Accelerated testing must be initiated within two weeks of receipt of test results that indicate exceedance.

1.3.4.2 Initial investigation: If the permittee demonstrates through an evaluation of facility operations that the cause of the exceedance is known and corrective actions have been implemented, only one accelerated test is necessary.

1.3.4.3 The permittee shall notify DEC in writing of exceedances within two weeks of receipt of the test results. Notification shall include the following information:

1.3.4.3.1 a status report on any actions required by the permit with a schedule for actions not yet completed;

1.3.4.3.2 a description of any additional actions the permittee has taken or will take to investigate and correct the cause(s) of toxicity; and

1.3.4.3.3 where no actions have been taken, a discussion of all reasons for not taking action.

1.3.4.4 If none of the accelerated tests indicates toxicity greater than 20 TUc, the permittee may return to the normal testing frequency.

1.3.4.5 If toxicity is greater than 20 TUc in any of the accelerated tests, the permittee must initiate a toxicity reduction evaluation (TRE) as outlined in Section 1.3.5 within 15 days of the exceedance.

1.3.4.6 If the permittee is able to adequately demonstrate through an evaluation of facility operations that the cause of the exceedance(s) is known and corrective actions have been immediately implemented, or in cases where additional test quality assurance or quality control is necessary, only one accelerated test is necessary. If toxicity is greater than 20 TUc in this test, then TRE requirements in Section 1.3.5 shall apply.

1.3.5 Toxicity Reduction Evaluation and Toxicity Identification Evaluation

1.3.5.1 If toxicity is greater than 20 TUc in any of the accelerated tests, the permittee shall initiate a TRE in accordance with *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833-B-99-002, August 1999). The permittee will develop a more detailed TRE workplan as expeditiously as possible. At a minimum, the workplan shall include:

1.3.5.1.1 further actions to investigate and identify the cause of toxicity,

1.3.5.1.2 actions the permittee will take to mitigate impact of the discharge and to prevent recurrence of toxicity, and

1.3.5.1.3 a schedule for these actions.

1.3.5.2 If a TRE is initiated before completion of accelerated testing, the accelerated testing schedule may be terminated or used as necessary in performing the TRE.

1.3.5.3 The permittee may initiate a Toxicity Identification Evaluation (TIE) as part of the TRE process. Any TIE must be performed in accordance with EPA guidance manuals, *Toxicity Identification Evaluation, Characterization of Chronically Toxic Effluents, Phase I* (EPA/600-6-91-005F, May 1992); *Methods for Aquatic Toxicity Identification Evaluation, Phase II: Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600-R-92-080, September 1993); and *Methods for Aquatic Toxicity Identification Evaluations, Phase III: Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600-R-92-081, September 1993).

1.3.6 Reporting

1.3.6.1 The permittee shall submit as an attachment the results of the toxicity tests with the DMR following the month in which the testing results are received.

1.3.6.2 If applicable, a full accelerated testing report must be submitted within four weeks of receipt of the final testing results from the laboratory.

1.3.6.3 If toxicity is greater than 20 TUc in any test, a copy of the more detailed TRE workplan as required in Permit Section 1.3.5.1, must be submitted as an attachment with the DMR for the month following completion of the workplan.

1.3.6.4 If an initial investigation identifies the source of toxicity and accelerated testing is unnecessary, the result of the investigation must be submitted as an attachment with the DMR for the month following completion of the investigation.

1.3.6.5 The toxicity test report results must include all relevant information outlined in Section 10, *Report Preparation of Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, (EPA/600-R-95-136, August 1995).

1.4 Mixing Zone

1.4.1 In accordance with state regulations at 18 AAC 70.240, a mixing zone for ammonia, copper, dissolved oxygen, FC bacteria, enterococci bacteria, temperature, and WET is authorized in Gastineau Channel for the discharge.

1.4.2 The chronic mixing zone for this discharge has a dilution of 19.6:1 and is defined as a rectangular area centered over the diffuser 29 meters long and 8.8 meters wide.

1.4.1 The acute mixing zone for this discharge has a dilution of 10.9:1 and is defined as a rectangular area centered over the diffuser 13 meters long and 6.9 meters wide.

1.5 Receiving Waterbody Monitoring

1.5.1 The permittee must conduct receiving water monitoring as specified in Table 3. Monitoring must be established in Gastineau Channel in a location that is outside the influence of the facility's discharge.

1.5.2 Receiving waterbody monitoring results must be submitted as an attachment with the DMR following the month in which the results are received.

Table 3- Gastineau Channel Ambient Monitoring Requirements

Parameter	Units [a]	Sampling Frequency [b]	Sample Type
pH	SU	2/Year [c]	Grab
Temperature	°C		
Salinity	grams/kilogram		
Copper, total recoverable	µg/L		

Footnotes:
a. Units: SU =standard units, °C=degrees Celsius, µg/L=micrograms per liter.
b. If practicable, ambient monitoring should occur on the same day as Outfall 001A ammonia and copper monitoring.
c. Twice per year means one sample taken June– September, and one October-May.

1.6 Combined Sewer Overflows (CSOs)

The permittee is authorized to discharge from three CSO outfalls listed in Table 4 in accordance with the terms and conditions of this section.

Table 4- Permitted Combined Sewer Overflows

Diversion Structure	Location	Receiving Waterbody
N-11	Sta AE, Near intersection of Glacier Avenue and Highland Drive (High School)	Gastineau Channel
N-11.2	Sta C, Intersection of Marine Way and South Seward Street, Sealaska Diversion (City Hall)	
N-15.1	Douglas, Water's edge, approximately at the intersection of Front and Dock Streets	

1.6.1 The permittee must comply with the following technology-based requirements:

1.6.1.1 No dry weather CSOs are permitted.

1.6.1.2 The permittee must use all available and reasonable measures to prevent or moderate such discharges through proper operation and regular maintenance.

1.6.1.3 The permittee must maximize use of the collection system for storage.

1.6.1.4 The permittee shall continue to implement selected CSO controls to minimize CSO impacts from nondomestic discharges.

1.6.1.5 The permittee must maximize flow to the WWTF for treatment.

1.6.1.6 The permittee must control solid and floatable materials in sewer overflows.

1.6.1.7 The permittee must implement a pollution prevention program.

1.6.1.8 The permittee must ensure that the public receives adequate notification of CSO occurrences and CSO impacts.

1.6.2 The permittee must comply with the following water quality-based requirements:

1.6.2.1 The permittee shall not discharge at a level that causes of contributes to an instream excursion above numeric or narrative criteria adopted as part of Alaska Water Quality Standards (18 AAC 70), unless allowed in this permit through exceptions to the standards or in a compliance schedule 18 AAC 70.200 – 70.270 and 18 AAC 70.910.

1.6.2.2 The permittee shall discharge no more than an average of four overflow events per year not receiving the following minimum treatment:

1.6.2.2.1 Primary clarification or equivalent.

1.6.2.2.2 Solids and floatables disposal.

1.6.2.2.3 Fecal coliform counts maintained below a maximum daily 43 FC/100mL.

1.6.2.2.4 Total residual chlorine concentration below a maximum daily 0.013 mg/L.

1.6.3 The permittee shall implement and effectively operate and maintain the CSO controls identified in the Juneau-Douglas WWTF Long Term Control Plan. Each diversion structure listed in Table 4 must be monitored, when discharging, as listed in Table 5 below.

1.6.4 The permittee must submit an annual report by January 31st of the next year. The report must summarize the information from each discharge from the previous year and demonstrate compliance with the technology-based and water-quality based requirements at permit sections 1.6.1 and section 1.6.2.

Table 5- CSO Diversion Monitoring Requirements

Parameter	Units [a]	Sample Location	Sampling Frequency	Sample Type
Flow	mgd	Effluent	Once per diversion event	Record and report the total volume of discharge per day for each opening when discharging.
BOD_5	mg/L and lbs/day[b]	Effluent	Once per diversion event	Grab
TSS	mg/L and lbs/day	Effluent	Once per diversion event	Grab
FC Bacteria	FC/100mL	Effluent	Once per diversion event	Grab
Enterococci Bacteria	cfu/100mL	Effluent	Once per diversion event	Grab
Duration of opening	Minutes	Effluent	Once per diversion event	Report the time that the overflow is opened and closed and total minutes open.
Reason for discharge	N/A	N/A	Once per diversion event	N/A

Footnotes:

a. Units: mgd = million gallons per day, mg/L = milligrams per liter, lbs/day = pounds per day, FC/100 mL = Fecal Coliform per 100 milliliters, cfu/100 mL = colony forming units per 100 milliliters.

b. lbs/day = concentration (mg/L) x flow (mgd) x 8.34 (conversion factor).

1.7 Additional Monitoring

1.7.1 The permittee shall perform the additional effluent testing in the Alaska Pollutant Discharge Elimination System (APDES) Application Form 2A, Section 11 as well as all applicable supplemental monitoring listed in Section 12. The permittee shall submit the results of the additional testing with their application for reissuance of this APDES permit. The permittee shall consult and review Form 2A, Section 11 upon permit issuance to ensure that the required monitoring in the application will be completed prior to submitting a request for permit reissuance. Form 2A may be found at the following site: http://dec.alaska.gov/water/wastewater/permit-entry/domestic-and-municipal/.

1.7.2 Monitoring for the parameters contained in this permit may be used to satisfy, where applicable, Section 11 and 12 monitoring requirements.

1.7.3 The permittee is responsible for all submissions and activities required on application Form 2A, even if not summarized here.

2.0 SPECIAL CONDITIONS

2.1 Quality Assurance Project Plan (QAPP)

2.1.1 Within 180 days of the effective date of the permit, the permittee shall review, update as necessary, and implement a QAPP for all monitoring required by this permit.

2.1.2 The QAPP must be designed to assist in planning for the collection and analysis of all samples in support of the permit and to help explain data anomalies whenever they occur.

2.1.3 The QAPP shall be retained electronically or physically onsite and made available to DEC upon request.

2.1.4 Throughout all sample collection and analysis activities, the permittee must use DEC-approved Quality Assurance/Quality Control and chain-of-custody procedures, as described in the *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5, March 2001) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5, December 2002). The QAPP must be prepared in the format specified in these documents.

2.1.5 At a minimum, a QAPP must include:

2.1.5.1 Details on number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation 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;

2.1.5.2 Maps indicating the location of each sampling point;

2.1.5.3 Qualification and training of personnel;

2.1.5.4 Specifications for the collection and analysis of quality assurance samples for each sampling event, including matrix spiked and duplicate samples and analysis of field blanks (sample blanks); and

2.1.5.5 Name, address, and telephone number of all laboratories used by or proposed to be used by the permittee.

2.1.6 The permittee must amend the facility specific QAPP whenever sample collection, sample analysis, or other procedure addressed by the QAPP is modified.

2.2 Operation and Maintenance Plan (O&M Plan)

2.2.1 In addition to requirements specified in Appendix A, Part 1.6 of this permit (Proper Operation and Maintenance), within 180 days of the effective date of this permit, the permittee shall review and update as necessary, the Juneau-Douglas WWTF O&M Plan.

2.2.2 The O&M Plan shall be retained electronically or physically onsite and made available to DEC upon request.

2.2.3 The O&M Plan must be reviewed annually. Documentation of annual plan review by the permittee shall be retained onsite and made available to DEC upon request.

2.2.4 The O&M Plan must include appropriate best management practices (BMPs) which prevent or minimize potential for the release of pollutants to Gastineau Channel.

2.2.5 The permittee must develop a description of pollution prevention measures and controls appropriate for the facility. The appropriateness and priorities of controls in the O&M Plan must reflect identified potential sources of pollutants at the facility. The description of BMPs must address to the extent practicable, the following minimum components:

2.2.5.1 Spill prevention and control;

2.2.5.2 Optimization of chemical usage;

2.2.5.3 Preventative maintenance program;

2.2.5.4 Minimization of pollutant inputs from industrial users;

2.2.5.5 Research, development and implementation of a public information and education program to control the introduction of household hazardous materials to the sewer system; and

2.2.5.6 Water conservation.

2.3 Industrial User Survey

2.3.1 A list of those industries or businesses that discharge and/or have the potential to discharge (i.e. a spill to the collection system) non-domestic wastewater to Juneau-Douglas WWTF's collection system must be submitted with Form 2A when applying for permit reissuance.

2.3.2 The industries or businesses should be categorized as significant industrial user (SIU) or minor industrial user (MIU). See Appendix C for definitions of these categories.

2.3.3 The list must include the following:

2.3.3.1 The business name and address

2.3.3.2 A description of the non-domestic process including products manufactured or services performed and potential pollutants

2.3.3.3 The Standard Industrial Classification (SIC) http://siccode.com/en/siccode/list/directory or North American Industry Classification System (NAICS) http://www.naics.com/complete-naics-business-resource-list/ code(s) for each activity type

2.3.3.4 Estimate of non-domestic wastewater discharged into the facility's wastewater treatment collection system in gallons per day and whether the discharge is continuous or intermittent

2.3.4 Those industries or businesses that are not connected to the collection system or that solely discharge domestic equivalent wastewater are not considered sources of non-domestic wastewater and may be excluded from the list that is submitted to DEC. However, a list of the domestic equivalent industries or businesses should be maintained by Juneau-Douglas WWTF and made available to DEC upon request.

2.3.5 For domestic equivalents, the list should include the following:

2.3.5.1 The business name and address

2.3.5.2 A description of products manufactured, or services performed and potential pollutants

2.3.6 DEC may request additional information regarding wastewater contributions from specific industries or businesses in order to verify categorization as a SIU, MIU, or domestic equivalent, and to determine whether a pretreatment program should be developed and/or or if pretreatment requirements should be included in the Juneau-Douglas WWTF's wastewater discharge permit.

3.0 GENERAL PROVISIONS

3.1 Electronic Reporting (E-Reporting) Rule

3.1.1 E-Reporting Rule for DMRs (Phase I).

The permittee must submit DMR data electronically through NetDMR per Phase I of the E-Reporting Rule (40 CFR 127) upon the effective date of the Permit. Authorized persons may access permit information by logging into the NetDMR Portal (https://cdxnodengn.epa.gov/oeca-netdmr-web/action/login). DMRs submitted in compliance with the E-Reporting Rule are not required to be submitted as described in Appendix A – Standard Conditions unless requested or approved by the Department. Any DMR data required by the Permit that cannot be reported in a NetDMR field (e.g. mixing zone receiving water data, etc…), shall be included as an attachment to the NetDMR submittal. DEC has established an e-Reporting Information website at http://dec.alaska.gov/water/compliance/electronic-reporting-rule that contains general information about this new reporting format. Training materials and webinars for NetDMR can be found at https://netdmr.zendesk.com/home.

3.1.2 E-Reporting Rule for Other Reports (Phase II).

Phase II of the E-Reporting rule will integrate electronic reporting for all other reports required by the Permit (e.g., Annual Reports and Certifications) and implementation is expected to begin December 2020. Permittees should monitor DEC's E-Reporting Information website http://dec.alaska.gov/water/compliance/electronic-reporting-rule for updates on Phase II of the E-Reporting Rule and will be notified when they must begin submitting all other reports electronically. Until such time, other reports required by the Permit may be submitted in accordance with Appendix A – Standard Conditions.

3.2 Identification Sign

At least one sign must be posted on the shoreline near the discharge area of Outfall 001A during discharge. Signs must inform the public that secondary treated domestic wastewater is being discharged, state that there is a mixing zone and describe it, warn users of the area that certain activities such as the harvesting of aquatic life for raw consumption and bathing should not take place in the mixing zone, and provide the phone number and identify of the discharger.

3.3 Removed Substances

Collected screenings, grit, solids, scum, and other facility residuals, or other pollutants removed in the course of treatment or control of water and wastewaters shall be disposed in an DEC-approved manner

and method in accordance with 18 AAC 60, such as to prevent any pollution from such materials from entering navigable waters.

APPENDIX A

STANDARD CONDITIONS

APDES INDIVIDUAL PERMIT

PUBLICLY OWNED TREATMENT WORKS

Appendix B Acronyms

The following acronyms are common terms that may be found in an Alaska Pollutant Discharge Elimination System (APDES) permit.

18 AAC 15	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 15: Administrative Procedures
18 AAC 70	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 70: Water Quality Standards
18 AAC 72	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 72: Wastewater Disposal
18 AAC 83	Alaska Administrative Code. Title 18 Environmental Conservation, Chapter 83: Alaska Pollutant Discharge Elimination System.

All chapters of Alaska Administrative Code, Title 18 are available at the Alaska Administrative Code database http://dec.alaska.gov/commish/regulations/

40 CFR	Code of Federal Regulations Title 40: Protection of Environment
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
APDES	Alaska Pollutant Discharge Elimination System
AS	Alaska Statutes
AS 46.03	Alaska Statues Title 46, Chapter 03: Environmental Conservation. Available at http://www.legis.state.ak.us/default.htm
BOD_5	Biochemical Oxygen Demand, 5-day
BMP	Best Management Practice
CFR	Code of Federal Regulations
Cu	Copper
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EPA	U.S. Environmental Protection Agency
FC	Fecal Coliform Bacteria
GPD or gpd	Gallons per day
Hg	Mercury
IC_{25}	Inhibition Concentration 25%
I/I	Infiltration and Inflow

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR 403.3(v))

LC_{50}	Lethal Concentration 50%
LOQ	Limit of Quantification
MDL	Method Detection Limit
mg/L	Milligrams per Liter
MGD or mgd	Million gallons per day
MIU	Minor Industrial User
ML	Minimum Level
MLLW	Mean Lower Low Water
N/A	Not Applicable
Ni	Nickel
NOEC	No Observed Effect Concentration
Pb	Lead
POTW	Publicly Owned Treatment Works
PQL	Practical Quantification Limit
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QC	Quality Control
RL	Reporting Limit
RWC	Receiving Water Concentration
Se	Selenium
SIU	Significant Industrial User
SU	Standard Units
TIE	Toxicity Identification Evaluation
TRC	Total Residual Chlorine
TRE	Toxicity Reduction Evaluation
TSS	Total Suspended Solids
TUc	Toxic Unit, Chronic
µg/L	Micrograms per Liter
U.S.C.	United States Code
WQS	Water Quality Standards
WWTF	Wastewater Treatment Facility
Zn	Zinc

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Appendix C Definitions

The following are common definitions of terms associated with APDES permits. Not all the terms listed may appear in a permit. Consult the footnote references for a complete list of terms and definitions.

Acute[b]	Means of, relating to, or resulting from a level of toxicity of a substance, a substance combination, or an effluent sufficient to produce observable lethal or sublethal effects in aquatic organisms exposed for short periods of time, typically 96 hours or less
Administrator[a]	Means the Administrator of the EPA or an authorized representative.
Alaska Pollutant Discharge Elimination System (APDES)[a]	Means the state's program, approved by EPA under 33 U.S.C. 1342(b), for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under 33 U.S.C. 1317, 1328, 1342, and 1345.
Annual	Means once per calendar year
Average	Means the arithmetic mean obtained by adding quantities and dividing the sum by the number of quantities
Average Monthly Discharge Limitation[a]	Means the highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured for that month
Average Weekly Discharge Limitation[g]	The highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number
Bypass[a]	Means the intentional diversion of waste streams from any portion of a treatment facility
Chronic[b]	Means of, relating to, or resulting from a level of toxicity of a substance, a substance combination, or an effluent sufficient to produce observable lethal or sublethal effects, including effects on growth, development, behavior, reproduction, or survival, in aquatic organisms exposed for a period of time that generally is one-tenth or more of their life span
Clean Water Act (CWA)	Means the federal law codified at 33 U.S.C. 1251-1387, also referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972
Commissioner[a]	Means the commissioner of the Alaska Department of Environmental Conservation or the commissioner's designee

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Composite Samples	Composite samples must consist of at least eight equal volume grab samples. 24-hour composite sample means a combination of at least eight discrete samples of equal volume collected at equal time intervals over a 24-hour period at the same location. A "flow proportional composite" sample means a combination of at least eight discrete samples collected at equal time intervals over a 24-hour period with each sample volume proportioned according to the flow volume. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
Continuous Monitoring	Means monitoring that occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.
Criterion [b]	Means a set concentration or limit of a water quality parameter that, when not exceeded, will protect an organism, a population of organisms, a community of organisms, or a prescribed water use with a reasonable degree of safety. A criterion might be a narrative statement instead of a numerical concentration or limit.
Daily Discharge [a]	Means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants measured in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with a limitation expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.
Datum	A datum defines the position of the spheroid, a mathematical representation of the earth, relative to the center of the earth. It provides a frame of reference for measuring locations on the surface of the earth by defining the origin and orientation of latitude and longitude lines.
Department [a]	Means the Alaska Department of Environmental Conservation
Design Flow [a]	Means the wastewater flow rate that the plant was designed to handle
Director [a]	Means the commissioner or the commissioner’s designee assigned to administer the APDES program or a portion of it, unless the context identifies an EPA director
Discharge [a]	When used without qualification, discharge means the discharge of a pollutant

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Discharge of a Pollutant [a]	Means any addition of any pollutant or combination of pollutants to waters of the United States from any point source or to waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft that is being used as a means of transportation. Discharge includes any addition of pollutants into waters of the United States from surface runoff that is collected or channeled by humans; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person that do not lead to a treatment works; discharges through pipes, sewers, or other conveyances leading into privately owned treatment works; and does not include an addition of pollutants by any indirect discharger.
Disinfect [c]	Means to treat by means of a chemical, physical, or other process, such as chlorination, ozonation, application of ultraviolet light, or sterilization, designed to eliminate pathogenic organisms, and producing an effluent with the following characteristics: (A) an arithmetic mean of the values for a minimum of five effluent samples collected in 30 consecutive days that does not exceed 200 fecal coliform per100 milliliters; and (B) an arithmetic mean of the values for effluent samples collected in seven consecutive days that does not exceed 400 fecal coliform per 100 milliliters.
Dissolved Oxygen (DO) [b]	Means the concentration of oxygen in water as determined either by the Winkler (iodometric) method and its modifications or by the membrane electrode method. The oxygen dissolved in water or wastewater and usually expressed in milligrams per liter or percent saturation
Domestic Equivalent	Means businesses that only discharge pollutants similar in nature to domestic wastewater that is discharged from residential dwellings, and that do not otherwise qualify as a SIU or an MIU as defined in this glossary. This definition is intended for use when categorizing industries and businesses, and not intended to be used as a general APDES definition.
Domestic Wastewater [c]	Means waterborne human wastes or graywater derived from dwellings, commercial buildings, institutions, or similar structures. "Domestic wastewater" includes the contents of individual removable containers used to collect and temporarily store human wastes.
Effluent Limit Guideline [a]	Means a regulation published by the administrator under 33 U.S.C. 1314(b) to adopt or revise effluent limitations, and adopted by reference in 18 AAC 83.010;
Effluent [b]	Means the segment of a wastewater stream that follows the final step in a treatment process and precedes discharge of the wastewater stream to the receiving environment
Estimated	Means a way to estimate the discharge volume. Approvable estimations include, but are not limited to, the number of persons per day at the facility, volume of potable water produced per day, lift station run time, etc.
Excluded area	Means an area not authorized as a receiving water under a permit

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Fecal Coliform Bacteria (FC) [b]	Bacteria that can ferment lactose at 44.5° + 0.2°C to produce gas in a multiple tube procedure. Fecal coliform bacteria also means all bacteria that produce blue colonies in a membrane filtration procedure within 24 ± 2 hours of incubation at 44.5° + 0.2°C in an M-FC broth.
Final Approval to Operate	Means the approval that the Department issues after it has reviewed and approved the construction and operation of the engineered wastewater treatment works plans submitted to the Department in accordance with 18 AAC 72.215 through 18 AAC 72.280 or as amended.
Five-Day Biochemical Oxygen Demand (BOD_5) [c]	Means the amount, in milligrams per liter, of oxygen used in the biochemical oxidation of organic matter in five days at 20º C
Geometric Mean	The geometric mean is the Nth root of the product of N. All sample results of zero will use a value of 1 for calculation of the geometric mean. Example geometric mean calculation: $\sqrt[4]{12 \times 23 \times 34 \times 990} = 55$
Grab Sample	Means a single instantaneous sample collected at a particular place and time that represents the composition of wastewater only at that time and place
Influent	Means untreated wastewater before it enters the first treatment process of a wastewater treatment works
Inhibition Concentration 25% (IC_{25}) [e]	Means the point estimate of the toxicant concentration that would cause 25% reduction in a nonlethal biological measurement of the test organisms, such as reproduction or growth
Lethal Concentration 50% (LC_{50}) [e]	Mean the point estimate of the toxicant that would be lethal to 50% of the test organisms during a specific period
Maximum Daily Discharge Limitation [a]	Means the highest allowable "daily discharge"
Mean [b]	Means the average of values obtained over a specified period and, for fecal coliform analysis, is computed as a geometric mean
Measured	Means the actual volume of wastewater discharged using appropriate mechanical or electronic equipment to provide a totalized reading. Measure does not provide a recorded measurement of instantaneous rates.
Method Detection Limit (MDL) [d]	Means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte
Micrograms per Liter (µg/L) [b]	Means the concentration at which one millionth of a gram (10^{-6} g) is found in a volume of one liter
Milligrams per Liter (mg/L) [b]	Means the concentration at which one thousandth of a gram (10-3 g) is found in a volume of one liter. It is approximately equal to the unit "parts per million (ppm)," formerly of common use.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Minor Industrial User (MIU)	Means businesses that do not qualify as SIUs according to the SIU definition, but who still either have some discharges of wastewater containing pollutants not typical of domestic wastewater, and potentially of concern to the POTW, or have a potential to discharge or spill chemicals to the POTW which could impair the normal operation of the POTW, adversely affect worker health or safety, or violate Alaska Water Quality Standards (18 AAC 70). This definition is intended for use when categorizing industries and businesses, and not intended to be used as a general APDES definition.
Minimum Level (ML) [e]	Means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed. This level is used as the compliance level if the effluent limit is below it.
Mixing Zone (MZ) [b]	Means a volume of water adjacent to a discharge in which wastes discharged mix with the receiving water
Month	Means the time period from the 1st of a calendar month to the last day in the month
Monthly Average	Means the average of daily discharges over a monitoring month calculated as the sum of all daily discharges measured during a monitoring month divided by the number of daily discharges measured during that month
No Observed Effect Concentration (NOEC) [e]	Means the highest concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. NOEC is determined using hypothesis testing.
Pass Through[h]	Means a discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation
Permittee	Means a company, organization, association, entity, or person who is issued a wastewater permit and is responsible for ensuring compliance, monitoring, and reporting as required by the permit
pH [g]	Means a measure of the hydrogen ion concentration of water or wastewater; expressed as the negative log of the hydrogen ion concentration in mg/L. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
Pollutant [a]	Means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under 42 U.S.C. 2011), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, or agricultural waste discharged into water

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Practical Quantification Limit (PQL) [g]	Means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
Primary Contact Recreation	Means activities in which there is direct and intimate contact with water. Contact recreation includes swimming, diving, and water skiing. Contact recreation does not include wading.
Principal Executive Officer [a]	Means the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of division of the agency
Publicly Owned Treatment Works[a]	Means a treatment works as defined by 33 U.S.C. 1292 that is owned by a municipality or state; in this subparagraph "municipality" includes a municipality that has jurisdiction over the indirect discharges to and the discharges from such a treatment works
Quality Assurance Project Plan (QAPP)	Means a system of procedures, checks, audits, and corrective actions to ensure that all research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality
Quarter	Means the time period of three months based on the calendar year beginning with January
Receiving Waterbody	Means lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state. (See "Waters of the U.S." at 18 AAC 83.990(77))
Recorded	Means a permanent record using mechanical or electronic equipment to provide a totalized reading, as well as a record of instantaneous readings
Report	Report results of analysis
Residual Chlorine	Means chlorine remaining in water or wastewater at the end of a specified contact period as combined or free chlorine
Responsible Corporate Officer [a]	Means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation The Responsible Corporate Officer can also be the manager of one or more manufacturing, production, or operating facilities if the requirements of 18 AAC 83.385(a)(1)(B)(i)-(iii) are met.
Secondary Recreation [b]	Means activities in which incidental water use can occur. Secondary recreation includes boating, camping, hunting, hiking, wading, and recreational fishing. Secondary contact recreation does not include fish consumption.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Settleable Solids [b]	Means solid material of organic or mineral origin that is transported by and deposited from water, as measured by the volumetric Imhoff cone method and at the method detection limits specified in method 2540(F), *Standard Methods for the Examination of Water and Wastewater*, 18th edition (1992), adopted by reference in 18 AAC 70.020(c)(1)
Severe Property Damage [a]	Means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
Significant Industrial User (SIU) [h]	Means all industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, subchapter N; and any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the control authority on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)
Suspended Solids	Means insoluble solids that either float on the surface of, or are in suspension in, water, wastewater, or other liquids. The quantity of material removed from wastewater in a laboratory test, as prescribed in *Standard Methods for the Examination of Water and Wastewater* and referred to as nonfilterable.
Technology Based Effluent Limit[g]	An effluent limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration or mass loading level. TBELs for POTWs are derived from the secondary treatment regulations in Part 133 or state treatment standards. TBELs for non-POTWs are derived from effluent guidelines, state treatment standards, or by the permit writer on a case-by-case basis using best professional judgment.
Total Suspended Solids (TSS) [g]	Means a measure of the filterable solids present in a sample, as determined by the method specified in 40 CFR Part 136
Toxic Unit, Chronic (TUc) [e]	Means the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/NOEC)
Twice per year	Means two time periods during the calendar year: October through April and May through September
Upset [a]	Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403

Waters of the United States or Waters of the U.S. (WOTUS)	Has the meaning given in 18 AAC 83.990(77)
Water Quality Based Effluent Limit [g]	An effluent limitation determined by selecting the most stringent of the effluent limits calculated using all applicable water quality criteria (e.g., aquatic life, human health, wildlife, translation of narrative criteria) for a specific point source to a specific receiving water.
Water Quality Criteria [e]	Are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal.
Water Quality Standard [e]	Means a law or regulation that consists of the beneficial designated use or uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an antidegradation statement.
Water Recreation [b]	See contact recreation or secondary recreation
Water Supply [b]	Means any of the waters of the United States that are designated in 18 AAC 70 to be protected for fresh water or marine water uses. Water supply includes waters used for drinking, culinary, food processing, agricultural, aquacultural, seafood processing, and industrial purposes. Water supply does not necessarily mean that water in a waterbody that is protected as a supply for the uses listed in this paragraph is safe to drink in its natural state.
Week	Means the time period of Sunday through Saturday
Whole Effluent Toxicity[a]	Means the aggregate toxic effect of an effluent measured directly by a toxicity test.

a) See 18 AAC 83
b) See 18 AAC 70.990
c) See 18 AAC 72.990
d) See 40 CFR Part 136
e) See EPA Technical Support Document
f) See Standard Methods for the Examination of Water and Wastewater 18th Edition
g) See EPA Permit Writers Manual
h) See 40 CFR Part 403