RESPONSE TO COMMENTS

City of Dover
Wastewater Treatment Plant
NPDES Permit ID0027693
June 5, 2018

On April 6, 2018, the U.S. Environmental Protection Agency (EPA) issued a public notice for the reissuance of the City of Dover Wastewater Treatment Plant (Dover) National Pollutant Discharge Elimination System (NPDES) Permit No. ID0027693.

This Response to Comments document provides a summary of significant comments received and corresponding EPA responses.

The EPA received comments from:

- Annie Shaha, Mayor, City of Dover. (Dover)
- Matthew Nykiel, Conservation Associate, Idaho Conservation League (ICL)

The following changes to the Final Permit have been made as a result of the comment period:

- The BOD_5 and TSS average monthly mass based limits are changed from 12 lbs/day to 15 lbs/day.
- The monitoring of phosphorus is revised to require one year of monitoring every four years.

1. **Comment (Dover):** Inconsistent information between fact sheet and permit

   Table 7 in the fact sheet presents proposed average monthly effluent limits for BOD_5 and TSS of 15 pounds per day. However, Table 2 in the permit has the average monthly limit of BOD_5 and TSS to be 12 pounds per day. Page 5 of the 401 Cert also has 12 pounds per day in the proposed effluent limits. We believe the intent is to retain the mass based limit of BOD_5 and TSS of 15 pounds per day consistent with the existing permit (However, see comment 4)

   Response: The EPA agrees. As the fact sheet states:

   > "The existing permit contained BOD_5 and TSS mass based limits based on the previous design flow of 0.06 mgd. The existing permit contains BOD_5 and TSS AMLs of 15 lbs/day and BOD_5 and TSS AWLs of 23 lbs/day. From June 2012 through June 2017, a period of 61 months, the City of Dover met their current BOD_5 and TSS mass based limits for every month. Therefore, the EPA has retained the mass based limits for BOD_5 and TSS from the existing permit in the draft permit."

   The intent of the proposed BOD_5 and TSS limits was to retain the mass based limits from the previous permit. Therefore, the mass based final effluent limits of BOD_5 and TSS are changed from an average monthly limit of 12 lbs/day to 15 lbs/day.

2. **Comment (Dover):** An "actual flow is a Monthly Average from June 2012 to June 2017 is 0.15 mgd" is reported on page 8 of the fact sheet. Our records have the monthly average flow, for the years 2015, 2016 and 2017, to be approximately 45,000 gallons per day.

   Response: The average flow in the Fact Sheet is based on discharge monitoring reports. The updated information does not change the permit conditions. Fact sheets are not revised due to public comments but the comment is documented in this response to comments.

   The permit is not changed.

3. **Comment (Dover):** The top of Page 12 in the Fact Sheet reports, "For any month, the monthly average effluent concentration of TSS shall not exceed 21 percent of the monthly average influent concentration of TSS", equaling a 79% removal requirement of TSS which is consistent with the current permit. However, Table 7 in the Fact sheet and Table 1 in the permit have an 85% TSS removal requirement. Dover would like to retain the 79% removal requirement of TSS.

   As you know Dover receives septic tank effluent which has a significant amount of typical domestic wastewater TSS removed compared to conventional treatment plants. The low influent TSS makes meeting higher percent removal requirements more difficult and increase the change of violation. We feel this higher risk is unnecessary and current percent removal requirements should be retained.

   Response: As the fact sheet states:

   The NPDES regulations provides for alternative percent removal requirements for BOD_5 and TSS where: (1) the concentration limits can consistently be met, (2) the 85 percent removal efficiency cannot be achieved, and (3) excessive infiltration/inflow is not the cause of the problem. (*See* 40 CFR 133.103(d)).

   The previous issuance of the City of Dover permit met these three requirements for the TSS percent removal requirement. The removal requirement was set to 79% in the previous permit.

   As part of the permit reissuance, the EPA has reevaluated the applicability of continuing the alternative percent removal requirement for TSS.

   > Requirement 1: The concentration limits can consistently be met. The City of Dover has consistently met concentration limits for TSS. ECHO reported no recent TSS concentration violations for the facility.
   >
   > Requirement 2: The 85 percent removal efficiency cannot be achieved. To evaluate the second requirement the EPA reviewed how often the City of Dover WWTP could not achieve an 85 percent removal efficiency. From June 2012 through June 2017, a period of 61 months, the City of Dover achieved an 85 percent removal efficiency all but 1 time. This occurred in December of 2012. With nearly 5 years of greater than or equal to 85 percent TSS removal, the EPA has determined that the City of Dover can meet the 85 percent TSS removal efficiency.

   The City of Dover does not meet all three of the alternative percent removal requirements, therefore, the facility does not qualify for an alternative percent removal efficiency.

   The permit is not changed.

4. **Comment (Dover):** The regulation at 40 CFR 122.45(b) requires that effluent limitations of POTWs be calculated based on the design flow of the facility. Since the design flow of the facility is 0.18 MGD, we feel the Mass-Based Limits should reflect the design flow of the facility. Since the Pend Oreille River only receives Tier 1 protection of cold water aquatic life, pollutants significant to this use can be increased up to the WQS criteria per Idaho Code (IDAPA 58.01.02.052.07). Maintaining current limits of TSS and BOD_5 is unnecessary and secondary based effluent limits will not violate the dissolved oxygen water quality standard.

   Response: The facility completed construction to increase its design flow from 0.06 mgd to 0.18 mgd in 2006 when it converted from a sequence batch reactor to a membrane bioreactor (MBR). Removal efficiency for the MBR is greater than that for the sequential batch reactor.

   As the fact sheet states:

   > "The existing permit contained BOD_5 and TSS mass based limits based on the previous design flow of 0.06 mgd. The existing permit contains BOD_5 and TSS AMLs of 15 lbs/day and BOD5

and TSS AWLs of 23 lbs/day. From June 2012 through June 2017, a period of 61 months, the City of Dover met their current BOD_5 and TSS mass based limits for every month. Therefore, the EPA has retained the mass based limits for BOD_5 and TSS from the existing permit in the draft permit."

The permit is not changed as a result of this comment. *See also* Response to Comment 1.

5. **Comment (Dover):** The public notice published on the EPA's website states that "disinfection is by ultraviolet, with chlorine backup." However, the City only uses chlorine for disinfection as accurately reported in the fact sheet.

   Response: The EPA acknowledges that the City of Dover uses only chlorine for disinfection and not ultraviolet radiation.

   The permit is not changed.

6. **Comment (ICL):** The EPA performed a reasonable potential analysis (RPA) for temperature to assess whether thermal discharges from Dover's WWTP could potentially cause or contribute to a violation of water quality criteria. The RPA for temperature appears to focus on violating temperature standards for cold-water aquatic life. We are concerned that the EPA's RPA didn't also focus on the role temperature plays in dissolved gas supersaturation, which is listed as a cause of impairment for the receiving water body, the Pend Oreille River.

   In their review of literature on dissolved gas supersaturation, Weitkamp and Katz (1980) noted, "*increasing water temperatures will produce supersaturation in water that is initially saturated.*" Given the fact that there is a relationship between temperature and dissolved gas supersaturation – for which the Pend Oreille River is impaired – the EPA's RPA should assess the potential for thermal discharges from this facility to contribute to dissolved gas supersaturation issues. If it is determined that thermal discharges from this facility are a contributing factor to dissolved gas supersaturation then the EPA should include appropriate effluent temperature limits as part of the final permit.

   Response: Dissolved Gas Supersaturation is not a pollutant of concern for POTWs nor are POTWs listed in the cited literature as a source contributing to Dissolved Gas Supersaturation. The source of the dissolved gas supersaturation in the Pend Oreille River are the dams. The draft *Pend Oreille River and Lake Total Dissolved Gas Total Maximum Daily Load, Addendum to the Pend Oreille Lake Subbasin Assessment and TMDL,* June 2008, stated:

   "The pollutant of concern, TDG, is generated at the Cabinet Gorge and Albeni Falls Dams."

   And

   "…TDG is addressed through TMDL allocations, instead of through the NPDES permit process."

   Page 27

   The permit is not changed.

7. **Comment (ICL):** The critical low flow used to calculate effluent limits in this proposed permit should be adjusted downward to account for tributary and waste water flow into the Pend Oreille River downstream of the City of Dover's outfall location. The associated effluent limits should also be adjusted accordingly.

   The EPA calculated critical low flows by subtracting daily flows from USGS station 12395000 at Priest River, ID, from flows measured at USGS station12395500 at Newport, WA. There are at least 20 tributaries to the Pend Oreille River and at least one municipal discharge downstream of the City of Dover's outfall location. The flows of these tributaries and municipal discharges appear

to be "baked in" to the EPA's critical low flow estimates. In other words, the critical low flow estimated for the City of Dover's point of discharge is artificially high.

Given the sensitivity of the Pend Oreille River, we request EPA collect, and estimate as needed, stream flow data for the tributaries between the USGS gage station at Newport, WA and the City of Dover's point of discharge. DEQ likely possesses stream flow data for these tributaries as part of its BURP data inventory. Less recent flow data for some of the smaller tributaries to the Pend Oreille River is also available in the Portland State University Report: Idaho Pend Oreille River Model: Model Development and Calibration (2006) available at https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1153&context=cengin_fac.. These flows should then be subtracted from the critical low flow EPA used to calculate effluent limits in the City of Dover's NPDES permit and the effluent limits should be adjusted accordingly.

Response: Critical low flows were used to evaluate the need for water quality-based effluent limitations in the City of Dover permit. The first step in using the critical low flows is to determine the reasonable potential of the City of Dover discharges to exceed the water quality standards of the Pend Oreille River.

In response to this comment, the EPA reevaluated the need for water quality based effluent limits using low flows adjusted to account for tributaries and municipal discharges between the USGS gage station at Newport, WA and the City of Dover's point of discharge. The EPA calculated revised flows using flow data from tributaries in the *Idaho Pend Oreille River Model: Model Development and Calibration* (*Portland Data Report*) (Portland State University, 2006). The EPA also calculated revised flows using flow data from IDEQ's Beneficial Reconnaissance Program (BURP). Because of the high flows in the Pend Oreille River, accounting for the inflow from these small tributaries makes no difference in the results. The results of that analysis showed the discharge still does not have reasonable potential to exceed the water quality standards ammonia, total residual chlorine and temperature.

Analysis:

To see if the inflows caused a change in the reasonable potential calculations, the EPA subtracted the flows found in the *Portland Data Report* for tributaries to the Pend Oreille River from the Pend Oreille flow between Dover and the USGS gage station at Newport, WA and also subtracted the flows from the City of Priest River. This provides the following reduction.

Inflows from tributaries are presented in Table 3 of the *Portland Data Report*. Except for the City of Priest River which is an average flow, these flows represent one data point.

Except for Hornby Creek and the City of Sandpoint all tributaries are between Dover and Albeni Falls the site of the Newport USGS station.

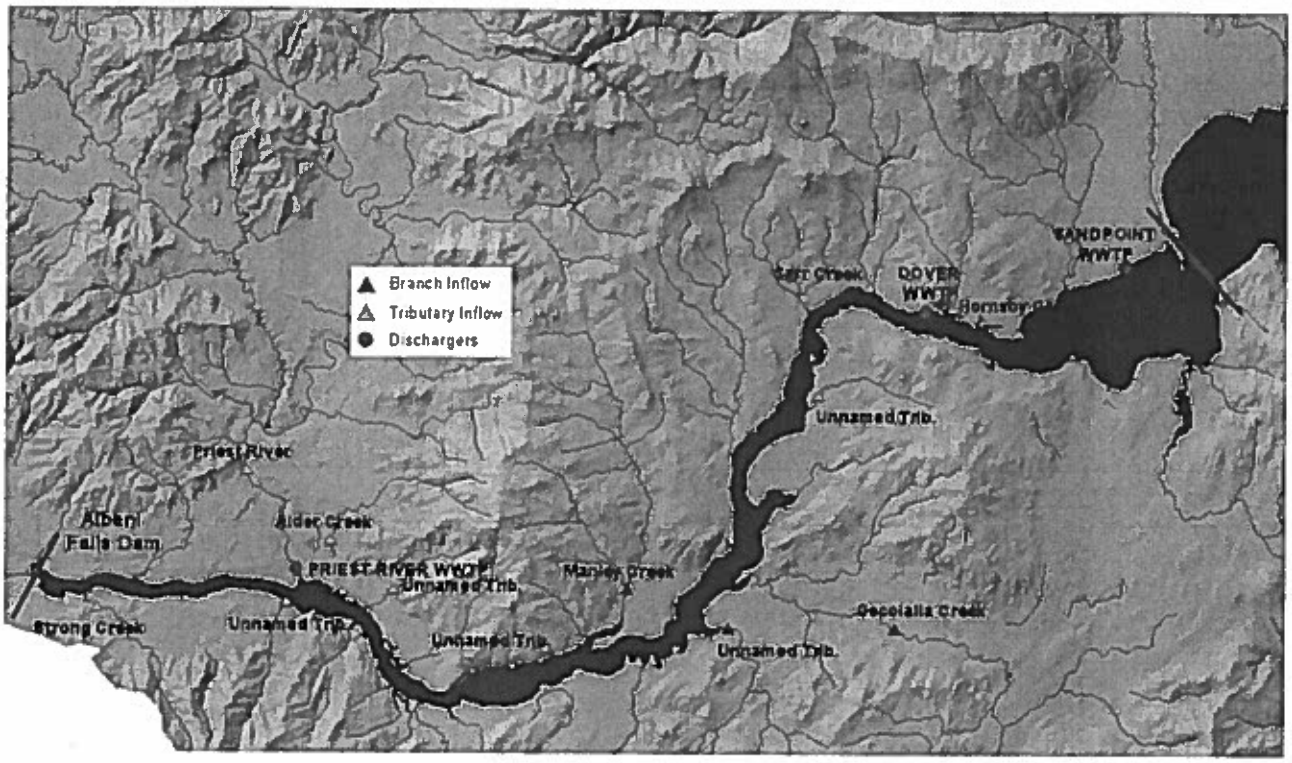

Table 3: Tributary and discharger inflows to the Pend Oreille River.

Tributary	Name	Segment	Flow, m^3/s
1	Hornsby Creek	35	0.024
2	Carr Creek	45	0.039
3	Unnamed Trib. to Pend Oreille	63	0.000
4	Unnamed Trib. to Pend Oreille	135	0.005
5	Unnamed Trib. to Pend Oreille	143	0.001
6	Alder Creek	147	0.000
7	Priest River	151	Variable
8	Unnamed Trib. to Pend Oreille	152	0.003
9	Strong Creek	177	0.003
10	City of Sandpoint, ID WWTP discharge	11	Variable
11	City of Dover, ID WWTP discharge	37	Variable
12	City of Priest River, ID WWTP discharge	151	Variable

Table 4: Tributary Inflows to the Pend Oreille River included as model branch inflows.

Branch	Name	Segment	Flow, m^3/s
4	Cocolalla Creek	201	0.049
5	Unnamed Trib. to Pend Oreille	208	0.004
6	Manley Creek	218	0.020

Total tributary and discharger inflows to the Pend Oreille River in Tables 3 and 4 excluding Hornsby Creek and Sandpoint = 0.124 m^3/sec.

The conversion factor to cfs is 35.3

0.124 m^3/s x 35.3 = 4.37 cfs

Inflow from the Priest River POTW = 0.28 cfs (from the Portland data report)

Total inflow not used in the calculations of flow in the Fact Sheet:

4.37 + 0.28 = 4.66 cfs

Revised minimum flows:

1Q10 annual = 3,020 – 4.66 = 3,015 cfs

1Q10 August -April = 3,020 – 4.66 = 3,015 cfs

1Q10 May – July = 6,413 – 4.66 = 6,408 cfs

7Q10 annual flow = 3,326 – 4.66 = 3,321 cfs

7Q10 August-April = 3,326 - 4.66 = 3,321 cfs

7Q10 May-July = 6,956 – 4.66 = 6,951 cfs

30B3 annual flow = 5,650 – 4.66 = 5,645 cfs

30B3 August – April = 5,650 – 4.66 = 5,645 cfs

30B3 May-July = 10,723 – 4.66 = 10,718 cfs

Using the flows in the reasonable potential spreadsheet provides the same result of no reasonable potential for ammonia, total residual chlorine and temperature.

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

Facility Name	City of Dover WWTP
Facility Flow (mgd)	0.18
Facility Flow (cfs)	0.28

Critical River Flows	(IDAPA 58.01.02 03. b)	Annual Crit. Flows	Seasonal Low Flow	Seasonal High Flow	Annual Crit. Flows
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)	1Q10	3014	3014	6407	3,014.0
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)	7Q10 or 4B3	3321	3321	6955	3,321.0
Ammonia	30B3/30Q10 (seasonal)	5645	5645	10717	5,645.0
Human Health - Non-Carcinogen	30Q5	5650	5650	6413	5,650.0
Human Health - carcinogen	Harmonic Mean Flow	16498	11980	30243	16,498.0

Receiving Water Data		Notes:	Annual Crit. Flows	Seasonal Low Flow	Seasonal High Flow
Hardness, as mg/L $CaCO_3$	= 70 mg/L	5th % at critical flows			
Temperature, °C	Temperature, °C	95th percentile	21	21	22
pH, S.U.	pH, S.U.	95th percentile	8.4	8.4	8.3

Pollutants of Concern			AMMONIA, default cold water, fish early life stages	AMMONIA, default cold water, fish early life stages	AMMONIA, default cold water, fish early life stages	CHLORINE (Total Residual)
Effluent Data	Number of Samples in Data Set (n)		37	26	11	61
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)		1.06	4.51	3.11	0.36
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C_e)		1,900	207	5,284	500
	Calculated 50th % Effluent Conc. (when n>10), Human Health Only					
Receiving Water Data	90th Percentile Conc., µg/L - (C_u)		34	34	34	0
	Geometric Mean, µg/L, Human Health Criteria Only					
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	2,593.359	2,593.359	3,149.089	19.
	Aquatic Life Criteria, µg/L	Chronic	849.269	849.269	940.802	11.
	Human Health Water and Organism, µg/L		–	–	–	–
	Human Health, Organism Only, µg/L		–	–	–	–
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute				–
		Chronic				–
	Carcinogen (Y/N), Human Health Criteria Only		–	–	–	–
Percent River Flow Default Value = 25%	Aquatic Life - Acute	1Q10	5%	5%	5%	5%
	Aquatic Life - Chronic	7Q10 or 4B3	–	–	–	5%
	Ammonia	30B3 or 30Q10	5%	5%	5%	5%
	Human Health - Non-Carcinogen	30Q5	–	–	–	5%
	Human Health - carcinogen	Harmonic Mean	–	–	–	5%
Calculated Dilution Factors (DF) (or enter Modeled DFs)	Aquatic Life - Acute	1Q10	542.2	542.2	1,151.4	542.2
	Aquatic Life - Chronic	7Q10 or 4B3				597.3
	Ammonia - Chronic	30B3 or 30Q10	1,014.6	1,014.6	1,925.3	1,014.6
	Human Health - Non-Carcinogen	30Q5				1,015.5
	Human Health - carcinogen	Harmonic Mean				2,983.4

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2=\ln(CV^2+1)$		0.868	1.749	1.539	0.349
P_n	$=(1\text{-confidence level})^{1/n}$, where confidence level =	99%	0.883	0.838	0.858	0.927
Multiplier (TSD p. 57)	$=\exp(z\sigma-0.5\sigma^2)/\exp[\text{normsinv}(P_n)\sigma-0.5\sigma^2]$, where	99%	2.7	10.5	19.2	1.4
Statistically projected critical discharge concentration (C_e)			5093.83	2163.36	101318.49	877.55
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone		Acute	43.33	37.93	121.98	1.25
(note: for metals, concentration as dissolved using conversion factor as translator)		Chronic	38.99	38.10	86.61	1.13
Reasonable Potential to exceed Aquatic Life Criteria			NO	NO	NO	NO

Freshwater Temperature Reasonable Potential and Limit Calculation

ID 58.01.02 250

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

	Cold Water Critera	
INPUT		**Data Source**
Chronic Dilution Factor at Mixing Zone Boundary	3321	7Q10 Low River Flow
Ambient Temperature (T) (Upstream Background)	21.0 °C	95th Percentile based on permittee or USGS data
Effluent Temperature	20.1 °C	95th Percentile of monthly daily max effluent based on daily max per DMR data
Aquatic Life Temperature WQ Criterion in Fresh Water	19.0 °C	Lowest daily max criteria
OUTPUT		
Mass Balance Final RW Temperature:	21.0 °C	Mass balance
Incremental Temperature Increase or decrease:	0.0 °C	WQS 401.c - allow for maximum of 0.3°C rise in receiving water temperature

Using data from the BURP data inventory results in the same conclusion of no reasonable potential to violate the water quality standards in the Pend Oreille River. These are average flows. The EPA also searched for flow data for these tributaries in the USGS's National Water Information System (NWIS) database, the Water Quality Portal and Legacy STORET.

Table 1: Tributary Flow Contributions

Stream	Average Tributary Flow (CFS)	Number of Tributary Flow Measurements	Average Percentage of PDO River Flow
Cocolalla Creek	3.4	1	0.0202%
Hoodoo Creek	2.84	4	0.0234%
Hornby Creek	8.39	6	0.0362%
Johnson Creek	0.46	1	0.0029%
Manley Creek	1.3	1	0.0028%
Riley Creek	1.06	1	0.0083%
Smith Creek	0.19	1	0.0015%
Syringa Creek/Chuck Slough	4.00	2	0.0134%
Unnamed Tributary (2012SCDAA009)	0.6	1	0.0018%
Unnamed Tributary (2012SCDAA010)	0.08	1	0.0002%
Unnamed Tributary (2012SCDAA037)	1.57	1	0.0123%
Total	**23.9**	**20**	**0.123%**

Inflow from the Priest River POTW = 0.28 cfs (from the *Portland Data Report*)

Total inflow not used in the calculations of flow in the Fact Sheet:

23.9 + 0.28 = 24.2 cfs

Change in minimum flows:

1Q10 annual = 3,020 – 24.2 = 2,996 cfs

1Q10 August -April = 3,020 – 24.2 = 2,996 cfs

1Q10 May – July = 6,413 – 24.2 = 6,389 cfs

7Q10 annual flow = 3,326 – 24.2 = 3,302 cfs

7Q10 August-April = 3,326 -24.2 = 3,302 cfs

7Q10 May-July = 6,956 – 24.2 = 6,932 cfs

30B3 annual flow = 5,650 – 24.2 = 5,626 cfs

30B3 August – April = 5,650 – 24.2 = 5,626 cfs

30B3 May-July = 10,723 – 24.2 = 10,699 cfs

Replacing the flows in the spreadsheet provides the same result of no reasonable potential for ammonia, total residual chlorine and temperature.

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

Facility Name	City of Dover WWTP
Facility Flow (mgd)	0.18
Facility Flow (cfs)	0.28

Critical River Flows	(IDAPA 58.01.02.03. b)	Annual Crit. Flows	Seasonal Low Flow	Seasonal High Flow	Annual Crit. Flows
Aquatic Life - Acute Criteria - Criterion Max. Concentration (CMC)	1Q10	2996	2996	6389	2,996.0
Aquatic Life - Chronic Criteria - Criterion Continuous Concentration (CCC)	7Q10 or 4B3	3302	3302	6932	3,302.0
Ammonia	30B3/30Q10 (seasonal)	5626	5626	10699	5,626.0
Human Health - Non-Carcinogen	30Q5	5650	5650	6413	5,650.0
Human Health - carcinogen	Harmonic Mean Flow	16498	11980	30243	16,498.0

Receiving Water Data

Hardness, as mg/L $CaCO_3$ = 70 mg/L

Temperature, °C

pH, S.U.

Notes:

	5th % at critical flows	Annual Crit. Flows	Seasonal Low Flow	Seasonal High Flow
Temperature, °C	95th percentile	21	21	22
pH, S.U.	95th percentile	8.4	8.4	8.3

Pollutants of Concern			AMMONIA, default cold water, fish early life stages	AMMONIA, default cold water, fish early life stages	AMMONIA, default cold water, fish early life stages	CHLORINE (Total Residual)
Effluent Data	Number of Samples in Data Set (n)		37	26	11	61
	Coefficient of Variation (CV) = Std. Dev./Mean (default CV = 0.6)		1.06	4.51	3.11	0.36
	Effluent Concentration, µg/L (Max. or 95th Percentile) - (C_e)		1,900	207	5,284	500
	Calculated 50th % Effluent Conc. (when n>10), Human Health Only					
Receiving Water Data	90th Percentile Conc., µg/L - (C_u)		34	34	34	0
	Geometric Mean, µg/L, Human Health Criteria Only					
Applicable Water Quality Criteria	Aquatic Life Criteria, µg/L	Acute	2,593.359	2,593.359	3,149.089	19.
	Aquatic Life Criteria, µg/L	Chronic	849.269	849.269	940.802	11.
	Human Health Water and Organism, µg/L		–	–	–	–
	Human Health, Organism Only, µg/L		–	–	–	–
	Metals Criteria Translator, decimal (or default use Conversion Factor)	Acute				–
		Chronic				–
	Carcinogen (Y/N), Human Health Criteria Only		–	–	–	–
Percent River Flow Default Value = 25%	Aquatic Life - Acute	1Q10	5%	5%	5%	5%
	Aquatic Life - Chronic	7Q10 or 4B3	–	–	–	5%
	Ammonia	30B3 or 30Q10	5%	5%	5%	5%
	Human Health - Non-Carcinogen	30Q5	–	–	–	5%
	Human Health - carcinogen	Harmonic Mean	–	–	–	5%
Calculated Dilution Factors (DF) (or enter Modeled DFs)	Aquatic Life - Acute	1Q10	539.0	539.0	1,148.2	539.0
	Aquatic Life - Chronic	7Q10 or 4B3				593.9
	Ammonia - Chronic	30B3 or 30Q10	1,011.2	1,011.2	1,922.1	1,011.2
	Human Health - Non-Carcinogen	30Q5				1,015.5
	Human Health - carcinogen	Harmonic Mean				2,963.4

Aquatic Life Reasonable Potential Analysis

σ	$\sigma^2=\ln(CV^2+1)$		0.868	1.749	1.539	0.349
P_n	$=(1\text{-confidence level})^{1/n}$, where confidence level =	99%	0.883	0.838	0.658	0.927
Multiplier (TSD p. 57)	$=\exp(z\sigma-0.5\sigma^2)/\exp[\text{normsinv}(P_n)\sigma-0.5\sigma^2]$, where	99%	2.7	10.5	19.2	1.4
Statistically projected critical discharge concentration (C_e)			5093.83	2163.36	101318.49	677.55
Predicted max. conc.(ug/L) at Edge-of-Mixing Zone		Acute	43.39	37.95	122.21	1.26
(note: for metals, concentration as dissolved using conversion factor as translator)		Chronic	39.00	36.11	86.69	1.14
Reasonable Potential to exceed Aquatic Life Criteria			NO	NO	NO	NO

Freshwater Temperature Reasonable Potential and Limit Calculation

ID 58.01.02 250

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

	Cold Water Criteria	
INPUT		**Data Source**
Chronic Dilution Factor at Mixing Zone Boundary	3302.0	High River Flow
Ambient Temperature (T) (Upstream Background)	21.0 °C	95th Percentile based on permittee or USGS data
Effluent Temperature	20.1 °C	95th Percentile of monthly daily max effluent based on daily max per DMR data
Aquatic Life Temperature WQ Criterion In Fresh Water	19.0 °C	Lowest daily max criteria
OUTPUT		
Temperature at Chronic Mixing Zone Boundary	21.0 °C	Mass balance
Incremental Temperature Increase or decrease:	0.0 °C	WQS 401.c - allow for maximum of 0.3°C rise in receiving water temperature.

The permit is not changed

8. **Comment (ICL):** Page 18 of the EPA's Fact Sheet states, "[T]he draft permit requires that the permittee monitor its effluent and the receiving water for ammonia, pH, and temperature in order to determine the applicable ammonia criteria for the next permit reissuance." However, Table 1 of the Draft Permit does not list ammonia as a parameter. This should be corrected to include ammonia as a parameter with the appropriate monitoring requirements listed in the applicable columns before issuing a final permit.

   Response: The statement on page 18 of the Fact Sheet is incorrect; the permittee is not required to monitor ammonia. The basis for this is explained in the Fact Sheet on page 22:

   > "Ammonia effluent monitoring has been removed from the draft permit. The previous permit required effluent ammonia monitoring to gather data for a reasonable potential analysis. A reasonable potential analysis was performed and found that the facility does not have the reasonable potential to cause or contribute to an excursion of the water quality criteria for ammonia. In it is unlikely the facility would have reasonable potential for either acute or chronic ammonia criteria due to the high amount of dilution available at current facility flows. The draft permit recommends no effluent monitoring for ammonia except for the ammonia monitoring required for reapplication, as outlined in the permit application form 2A Section B.6."

   The permit is not changed.

9. **Comment (ICL):** We are concerned that the mixing zone analysis arbitrarily evaluated the mixing zone capacity of the Pend Oreille River, near the outfall site, based on conditions and water quality functions of riverine system.

   The outfall for this facility is located at in the transition zone between Lake Pend Oreille and the Pend Oreille River. To evaluate the outfall location solely as a traditional riverine system or solely as a traditional lacustrine system risks basing the evaluation of this stretch of the Pend Oreille River on assumptions that may not accurately reflect the actual system functions and characteristics of the water body. We request EPA and DEQ explain how both of their evaluations of mixing zones for this portion of the Pend Oreille River account for the unique circumstances of the transition zone between riverine and lacustrine systems.

   Response: The minimum mixing zone to determine no reasonable potential for the City of Dover to violate the water quality standards is five percent of the receiving water. Mixing zones of up to 25 percent are allowed by IDEQ in determining a reasonable potential to violate the water quality standards. (See the response to comment 7.) Further research into the effects of Lake Pend Oreille on the Pend Oreille River are not warranted because of the small discharge of the City of Dover

into the relatively large receiving water of the Pend Oreille River. Further, the IDEQ 401 Certification authorizes the riverine mixing zone.

The permit is not changed.

10. **Comment (ICL)**: We request that the proposed monitoring requirements for phosphorus, at Note 7, be modified to state the following:

> "Monitoring required beginning 4 years from effective date of permit. Monitoring shall continue unless monitoring is determined unnecessary upon the next reissuance of this permit."

As the Fact Sheet states, the current permit has been administratively extended since 2006. If EPA reissues the City of Dover's NPDES permit, as proposed, and the proposed permit is similarly extended for over 10 years, the data collected from phosphorus monitoring will be outdated.

We request the monitoring requirement for phosphorus be amended per the language cited above, to ensure current phosphorus data in the Pend Oreille River, around the City of Dover's outfall site, is available for evaluation in the next NPDES/IPDES permit.

Response: The EPA agrees that phosphorus concentrations could be outdated if permit reissuance is not timely. The final permit is revised to repeat the one year of phosphorus monitoring every four years. This revision will provide additional phosphorus monitoring data in the event reissuance of the permit is delayed.

In addition, IDEQ has amended the certification condition for phosphorus monitoring to require monitoring every four years.

Note 7 of the permit is revised to add the following statement: "Monitoring required beginning 4 years from the effective date of permit and ending 5 years from effective date of permit for a total of twelve months. The permittee must repeat monitoring every 4 years, e.g. 8 years and 12 years from the effective date of the permit.."

11. **Comment (ICL):** We request EPA cite the applicable statutory and/or regulatory language that authorized EPA to determine that the issuance of the 2018 Dover NPDES permit will have no effect on the endangered species in the vicinity of the discharge, without consulting the National Oceanic and Atmospheric Administration Fisheries and the U.S. Fish and Wildlife Service. Despite a review of the 2001 BE and 2016 BE for Sandpoint, we are concerned that the analysis provided in these BE's was not specific enough for EPA to accurately and reliably make the determination mentioned above.

Response: The applicable statutory language is ESA Section 7 as interpreted on the U.S. Fish and Wildlife Service website at https://www.fws.gov/midwest/endangered/section7/section7.html

The website states:

> "Under Section 7, Federal agencies must consult with the U.S. Fish and Wildlife Service (Service) when any action the agency carries out, funds, or authorizes (such as through a permit) *may affect* a listed endangered or threatened species.

And:

> "When a Federal agency determines, through a biological assessment or other review, that its action is *likely to adversely affect* a listed species, the agency submits to the Service a request for formal consultation."

First, the EPA determined whether there were any endangered or threatened species or critical habitat in the vicinity of the discharge. The EPA found Bull trout in the vicinity of the discharge.

The EPA reviewed its actions in the Fact Sheet to determine whether the discharges from the City of Dover may affect listed species or critical habitat. The EPA also reviewed the 2001 Biological

Assessment for the City of Dover WWTP and the 2016 Biological Evaluation for the nearby City of Sandpoint. EPA determined the actions would have no effect on listed species or essential fish habitat. Therefore, consultation is not required.

The permit is not changed.