



March 24, 2020

Mr. Dainis Kleinbergs
WA State Dept. of Ecology
Southwest Region
PO Box 47775
Olympia, WA 98504-7775

Subject: Sections S4.E and S4.F of NPDES Permit No. WA-0023973. Infiltration and Inflow Evaluation and Wasteload Assessment Annual Reports for 2020.

Dear Mr. Kleinbergs,

Enclosed are the 2020 Annual I & I Evaluation and Wasteload Assessment for the City of Port Angeles. The base year for the I & I report is 2017. This selection was made because 2017 represents the first full year of operation after the final phase of the CSO Reduction project was completed. The Population Served values are generated from utility billing accounts.

The Wasteload Assessment shows that during most months the City of Port Angeles Wastewater Treatment Plant is still well below the 85% of design load threshold for Flow, TSS and CBOD. With the one exception being August, the peak month for TSS in 2020. In which facility loading was 76% of the design capacity for the one parameter.

Please contact me with any questions you may have.

Sincerely,

Tyler White
Wastewater Treatment Plant Superintendent
twhite@cityofpa.us
360-417-4690

Cc: Thomas Hunter, COPA Director of Public Works and Utilities
Eric Wheatley, COPA Deputy Director of Operations
Jonathan Boehme, COPA Deputy Director of Engineering

Port Angeles Wastewater Treatment Plant

Annual Treatment Facility Review Report (Wasteload Assessment)

Reporting Year: From: 1/1/2020 To: 12/31/2020

Design Parameters:

Max monthly design flow (dry):	3.3 MGD	Design Population Equivalent:	24800
Max monthly design flow (wet):	10.8 MGD	Present Population Served:	18970
Peak daily design flow:	13.4 MGD	Projected Population growth:	5%
Design Influent BOD loading:	8100 lbs/day	Compliance with effluent permit limitation?	
Design Influent TSS loading:	11750 lbs/day	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Table 1, Influent Monthly Average Loading & Peak Daily Flow (From Monthly DMR)

Month	Avg flow (MGD)	Peak Flow (M)	CBOD (lbs/day)	TSS (lbs/day)
January	5.28	9.85	3665.00	7746.00
February	5.28	13.65	3287.00	6464.00
March	2.40	3.62	2366.00	5993.00
April	1.93	2.67	2612.00	6246.00
May	1.74	2.50	2724.00	6396.00
June	1.72	2.67	2576.00	5202.00
July	1.52	1.75	2891.00	4900.00
August	1.47	1.64	3260.00	8979.00
September	1.63	3.75	3330.00	6710.00
October	1.70	2.59	2513.00	6295.00
November	3.44	9.80	2857.00	6216.00
December	4.20	17.04	3336.00	7715.00

Table 2, Maximum Influent Monthly Average Loading (Highest Month)

	Month	Monthly Value	Design Capacity	% Design Capacity	Previous year Monthly value	% Increase / Decrease
Dry Weather Flow MGD	May	1.7400	3.3000	52.73%	1.73	0.58%
Wet Weather Flow MGD	January	5.2800	10.8000	48.89%	4.03	31.02%
Peak Flow MGD	December	17.0400	13.4000	** 127.16%	11.73	45.27%
BOD (lbs/day)	January	3665.0	8100.0	45.25%	2906.00	26.12%
TSS (lbs/day)	August	8979.0	11750.0	76.42%	6470.00	38.78%

* Flow or wasteload reached 85% of design capacity; ** Flow or wasteload reached or exceeded its design capacity

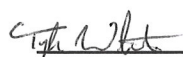
If actual flow or wasteload reaches 85% of design capacity for three consecutive months, the permittee shall submit a plan and schedule in accordance with their permit.

Table 3, Maximum Monthly Average Data for the Last Three Years (For Plotting)

Year	Flow (MGD)	BOD (lbs/day)	TSS
2020	5.28	3665	8979
2019	4.03	2906	6470
2018	5.00	2874	6210

Estimated year when the design capacity is projected to be reached: >2030

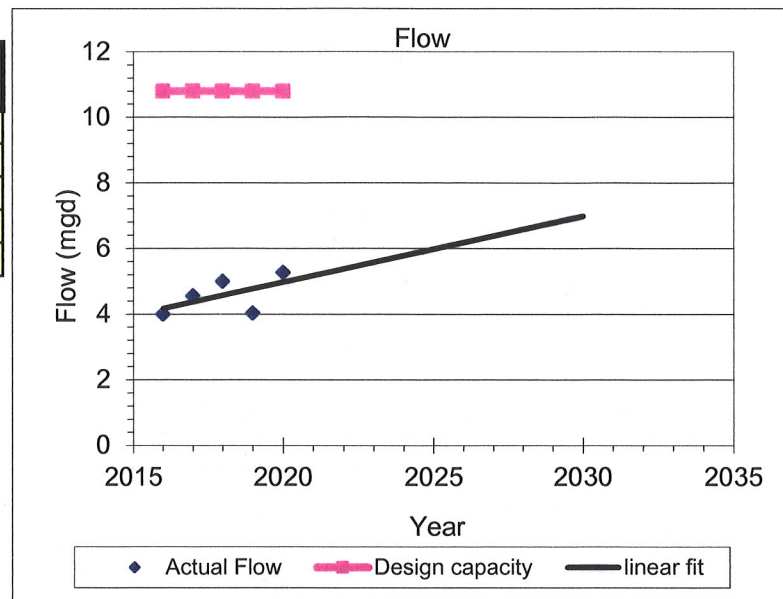
Comments:



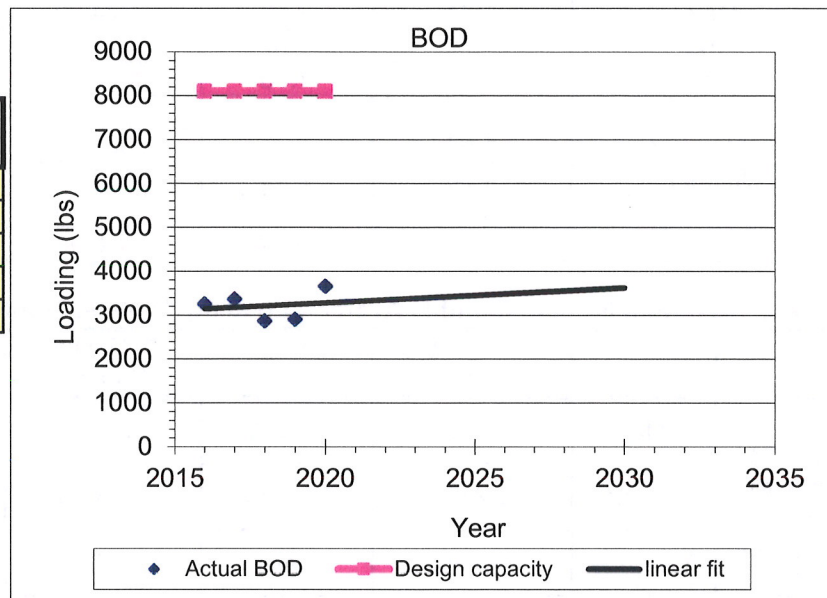
WWTP Superintendent

Signature and Title

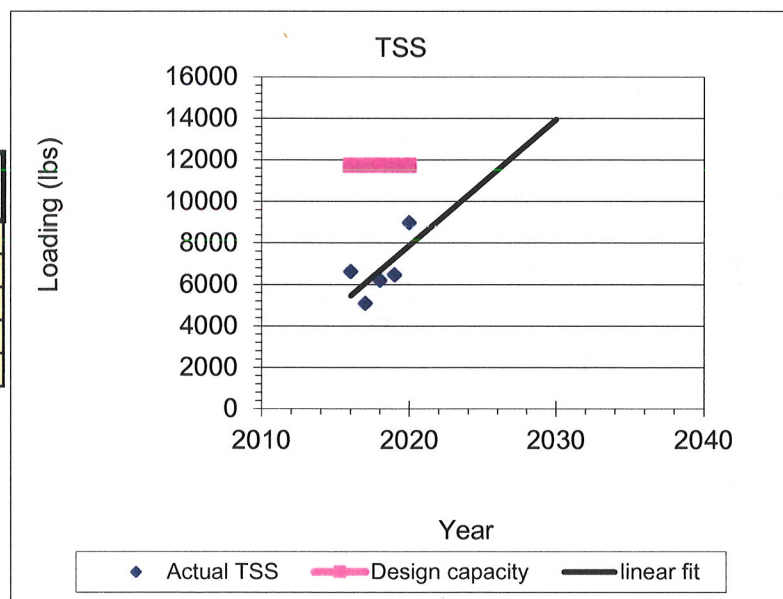
Year	Max month Flow, mgd	Design cap, mgd
2020	5.28	10.8
2019	4.03	10.8
2018	5.00	10.8
2017	4.56	10.8
2016	4.01	10.8



Year	Max month BOD, lbs/day	Design lbs/day
2020	3665	8100
2019	2906	8100
2018	2874	8100
2017	3367	8100
2016	3263	8100



Year	Max month TSS, lbs/day	Design lbs/day
2020	8979	11750
2019	6470	11750
2018	6210	11750
2017	5095	11750
2016	6630	11750



The following tables and guidelines have been developed to assist in preparing an Annual Infiltration/Inflow

Port Angeles Wastewater Treatment Plant

Annual Infiltration/Inflow (I/I) Report

Reporting Year: From: 01/01/20

To: 12/31/20

Average Design Flow: 3.3 MGD

Design Population Equivalent: 24800

Peak Design Flow: 13.4 MGD

	Average Monthly Flow (MGD)			Total Monthly Rainfall (inches)			Population Served number of billing accounts			Additional Sewer Lines Added (feet)		
	Year			Year			Year			Year		
Month	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020
January	5.00	3.7	5.28	3.99	2.42	4.09	13,730	13,486	7,949			
February	3.76	4.03	5.28	2.02	2.98	4.19	8,297	10,060	7,879			
March	2.41	2.35	2.40	0.83	0.51	1.48	9,267	7,910	7,886	179		
April	2.54	2.11	1.93	2.16	1.42	0.55	7,859	7,901	7,846			
May	1.77	1.73	1.74	0.06	0.52	1.88	7,883	7,883	7,835			
June	1.61	1.64	1.72	0.53	0.61	1.30	7,923	7,957	7,889			
July	1.53	1.63	1.52	0.01	0.53	0.15	7,921	7,950	7,976			
August	1.48	1.53	1.47	0.31	0.43	0.51	7,944	7,992	7,938			
September	1.5	1.67	1.63	1.21	2.29	1.56	7,931	7,957	7,928			
October	1.63	1.81	1.70	1.88	2.24	1.82	7,895	7,962	7,949			
November	2.06	1.72	3.44	2.46	1.09	4.6	7,934	7,951	7,924			
December	3.67	3.09	4.20	4.33	3.52	3.99	7,898	7,906	7,907	548	300	
TOTAL	28.96	27.01	32.31	19.79	18.56	26.12	Total (feet)			727	300	0
Low	1.48	1.53	1.47				Total (miles)			0.14	0.06	0.00
High	5	4.03	5.28									
Average	2.413	2.2508	2.693									
I/I	3.52	2.5	3.81									

Base Year 2017

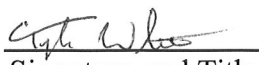
Base Year I/I:

3.08 MGD

Infiltration/Inflow Summary

Year	I/I	% increase from base I/I	% of avg. design flow
2018	3.52	14	107
2019	2.5	-19	76
2020	3.81	24	115

Comments: Base year has been changed from 2003 to 2017 based on completion of CSO Reduction Facilities
There was no new sanitary sewer lines added in 2020.


Signature and Title

WWTP Superintendent