

Town of Friday Harbor Water, Wastewater, and Solid Waste Utilities Summary Reports

www.fridayharbor.org

Period ending: January 2024

*Based on January's billing cycle
(December Water and Refuse Usage)

Data provided by
Jesse Douglas-Seitz, Public Works Director
Water Utility, Kasey Anderson Water Distribution Supervisor
Frank Byrne, Water Treatment Plant Supervisor
Wastewater Utility, Patrick Sandwith, Wastewater Treatment Plant Supervisor
Solid Waste Utility, Dave Smith, Refuse Supervisor

Analysis & Reports prepared by
Reid Ledgerwood, Lead Finance Clerk

Water - Use MTD

Water Class	Accounts	Gallons
Spe	2	38,317
Sfr	1,019	2,535,257
PA	83	479,558
Mfr	134	1,751,220
Ind	14	74,748
Com	221	1,256,441
TOTAL	1,473	6,135,541

Water - Use MTD by Location

Water Class	Accounts	Gallons
Location: IN		
Spe	2	38,317
Sfr	661	1,763,840
PA	75	363,162
Mfr	129	1,675,492
Ind	13	66,970
Com	218	1,235,482
	1,098	5,143,263
Location: Out		
Sfr	358	771,417
PA	8	116,396
Mfr	5	75,728
Ind	1	7,778
Com	3	20,959
	375	992,278
TOTAL	1,473	6,135,541

Water use MTD - Accounts with Sewer

Sewer Class	Accounts	Gallons
Location: IN		
Mfr In/low Strength	60	607,783
Com In/lo Strength	164	639,381
Dot In/lo Strength	3	34,509
Ind In/hi Strength	1	16,258
Ind In/lo Strength	10	47,724
Lmf In/lo Strength	1	2,720
Com In/hi Strength	43	539,562
Mfr In/lo Strength	61	615,158
Mhp In/lo Strength	2	379,299
PA In/hi Strength	3	45,890
PA In/lo Strength	48	211,715
Sfr IN Town	636	1,723,646
Low Rate / IN Town	12	21,356
	1,044	4,885,001
Location: Out		
UW Out/hi Strength	1	34,581
Mfr Out/lo Strength	1	11,990
Sfr Out of Town	4	6,964
	6	53,535
TOTAL	1,050	4,938,536

15-Apr-24

Refuse - Pickups by Class

Class	Pickups
Com	1,968.5
Ind	21.5
Mfr	582.5
PA	151.0
Refuse Only	356.0
Sfr	2,195.0
TOTAL	5,274.5

Refuse - Active Accounts

Refuse Type	Accounts
Cans	879
Cans Low Rate	13
Compactors	4
Large Dumpster	78
Medium Dumpste	55
PA	44
Small Dumpster	41
TOTAL	1,114

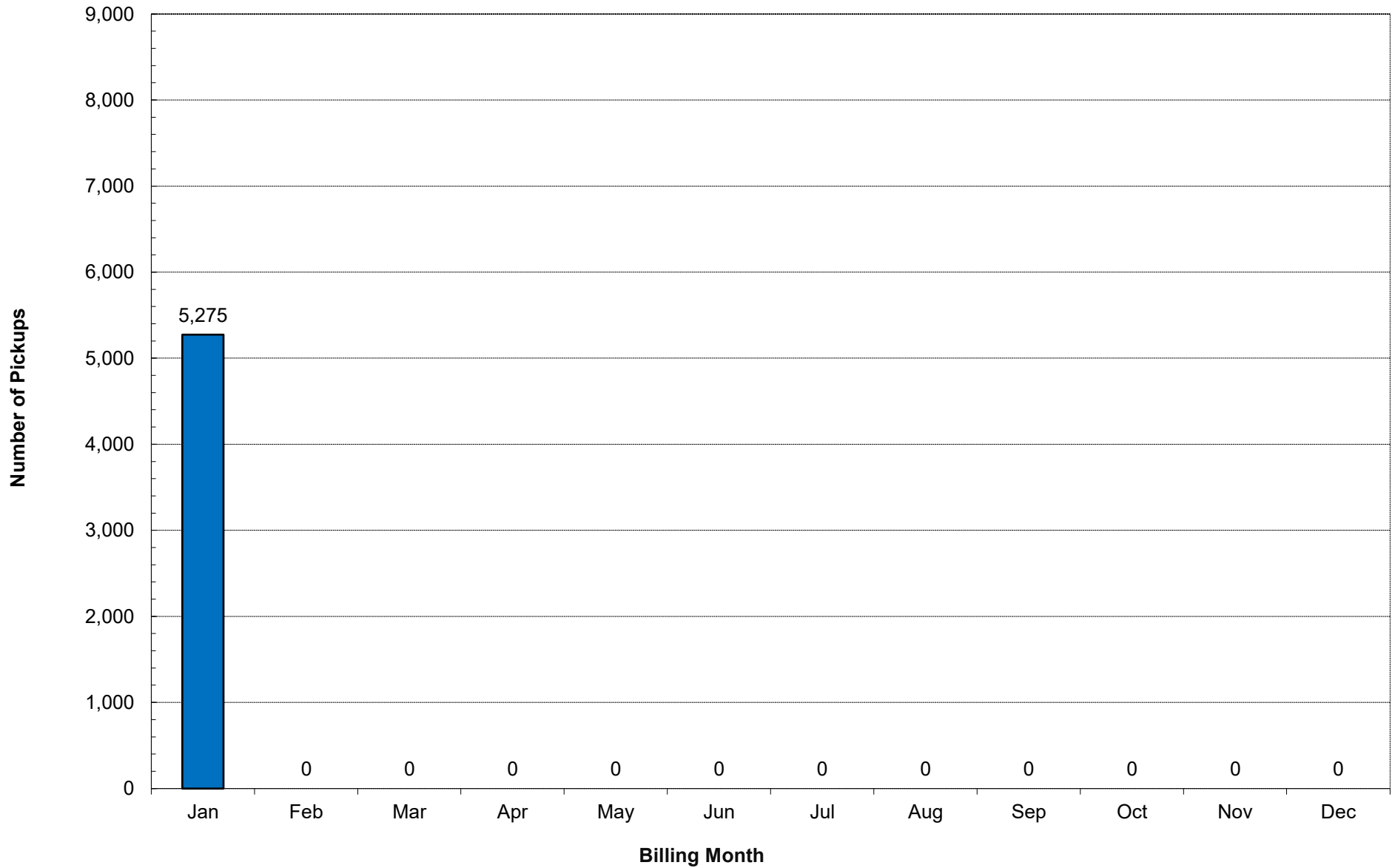
Recycle - pickups by Class

Class	Pickups
Com	2
Ind	2
Mfr	55
PA	0
RefuseOnly	25
Sfr	683
TOTAL	767

Refuse Pickups by Account Type - 2024 YTD

Billing Month	SFR	Refuse Only	PA	MFR	IND	COM	Total
Jan	2,195.0	356.0	151.0	582.5	21.5	1,968.5	5,274.5
Feb							-
Mar							-
Apr							-
May							-
Jun							-
Jul							-
Aug							-
Sep							-
Oct							-
Nov							-
Dec							-
YTD	2,195.0	356.0	151.0	582.5	21.5	1,968.5	5,274.5

Total Refuse Pickups by Month - 2024



Trout Lake Reservoir Level

Months with positive levels may reflect that a removable 7.25 inch riser has been added to the top of the original spillway.

end of	Inches above/(below) original spillway	end of	Inches above/(below) original spillway	end of	Inches above/(below) original spillway
Jan-24	0.00	Jan-27		Jan-30	
Feb-24		Feb-27		Feb-30	
Mar-24		Mar-27		Mar-30	
Apr-24		Apr-27		Apr-30	
May-24		May-27		May-30	
Jun-24		Jun-27		Jun-30	
Jul-24		Jul-27		Jul-30	
Aug-24		Aug-27		Aug-30	
Sep-24		Sep-27		Sep-30	
Oct-24		Oct-27		Oct-30	
Nov-24		Nov-27		Nov-30	
Dec-24		Dec-27		Dec-30	
Jan-25		Jan-28		Jan-31	
Feb-25		Feb-28		Feb-31	
Mar-25		Mar-28		Mar-31	
Apr-25		Apr-28		Apr-31	
May-25		May-28		May-31	
Jun-25		Jun-28		Jun-31	
Jul-25		Jul-28		Jul-31	
Aug-25		Aug-28		Aug-31	
Sep-25		Sep-28		Sep-31	
Oct-25		Oct-28		Oct-31	
Nov-25		Nov-28		Nov-31	
Dec-25		Dec-28		Dec-31	
Jan-26		Jan-29		Jan-32	
Feb-26		Feb-29		Feb-32	
Mar-26		Mar-29		Mar-32	
Apr-26		Apr-29		Apr-32	
May-26		May-29		May-32	
Jun-26		Jun-29		Jun-32	
Jul-26		Jul-29		Jul-32	
Aug-26		Aug-29		Aug-32	
Sep-26		Sep-29		Sep-32	
Oct-26		Oct-29		Oct-32	
Nov-26		Nov-29		Nov-32	
Dec-26		Dec-29		Dec-32	

Flow to Town (Gross Water Production) 2024

Billing Month	Start Date		End Date	Days in Period	Gross Flow to Town	
Jan	2-Jan	to	31-Jan	30	7,793,000	
Feb		to		-	-	
Mar		to		-	-	
Apr		to		-	-	
May		to		-	-	
Jun		to		-	-	
Jul		to		-	-	
Aug		to		-	-	
Sep		to		-	-	
Oct		to		-	-	
Nov		to		-	-	
Dec		to		-	-	
				30	7,793,000	

Rainfall - Trout Lake Water Treatment Facility

all figures in inches

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	average (2005-14)
Jan	5.49	6.87	6.51	2.34	3.82	4.73	5.90	3.46	4.14	2.86	4.61
Feb	1.01	1.61	2.83	1.78	1.50	1.24	2.74	3.38	1.32	4.22	2.16
Mar	2.33	0.91	3.70	1.99	2.05	3.30	3.37	3.09	3.63	3.88	2.83
Apr	1.37	2.23	1.49	1.32	2.07	1.47	2.96	1.91	2.70	1.94	1.95
May	1.08	1.24	0.78	1.26	1.69	2.09	3.07	1.09	2.20	1.05	1.56
Jun	1.63	0.56	1.03	1.16	0.35	1.10	0.68	2.60	0.83	0.52	1.05
Jul	0.70	0.26	1.56	0.21	0.45	0.11	0.84	1.04	0.00	0.36	0.55
Aug	1.60	0.03	0.64	1.88	0.81	0.72	0.29	0.00	0.95	0.49	0.74
Sep	0.94	1.15	0.54	0.84	1.58	4.35	0.72	0.12	5.08	1.34	1.67
Oct	3.50	1.89	2.12	1.83	5.24	1.38	2.29	6.40	1.42	4.00	3.01
Nov	4.28	10.43	2.32	5.15	6.76	2.94	4.50	3.32	2.49	4.00	4.62
Dec	2.89	3.74	4.59	3.70	1.80	6.55	1.88	4.79	2.28	3.37	3.56
Total	26.82	30.92	28.11	23.46	28.12	29.98	29.24	31.20	27.04	28.03	28.29

Cumulative thru

Dec	26.82	30.92	28.11	23.46	28.12	29.98	29.24	31.20	27.04	28.03
------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	average (2015-Current)
Jan	3.97	2.17	1.60	5.10	3.87	7.32	4.36	4.49	1.57	5.02	3.95
Feb	2.95	4.83	2.99	3.80	1.76	5.34	3.41	1.38	2.18		3.18
Mar	3.62	2.88	3.27	1.48	0.87	1.25	1.18	2.64	1.99		2.13
Apr	0.51	0.75	2.20	3.10	1.61	1.38	1.12	2.25	1.71		1.63
May	0.30	0.48	1.61	0.07	1.29	1.49	0.40	1.70	0.70		0.89
Jun	0.14	1.22	0.75	0.72	0.61	1.25	0.69	1.70	0.81		0.88
Jul	0.36	0.32	0.15	0.18	0.75	0.86	0.00	0.68	0.43		0.41
Aug	0.94	0.11	0.11	0.01	0.84	0.68	0.30	0.09	0.43		0.39
Sep	1.28	1.40	0.71	1.27	2.74	2.34	3.76	0.01	0.88		1.60
Oct	3.53	4.80	4.28	2.23	3.33	3.39	4.34	3.78	3.55		3.69
Nov	6.19	3.47	4.32	4.32	2.1	4.68	11.31	3.67	3.92		4.89
Dec	5.26	4.02	3.83	4.26	3.63	6.81	4.59	3.55	4.18		4.46
Total	29.05	26.45	25.82	26.54	23.40	36.79	35.46	25.94	22.35	5.02	28.10

Cumulative thru

Dec	29.05	26.45	25.82	26.54	23.40	36.79	35.46	25.94	22.35	5.02
------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	-------------

TOWN OF FRIDAY HARBOR

Net Water Production - 2023

Amounts in Gallons

	Jan	Feb	Mar	Apr	May	Jun
Gross Production	7,793,000	-	-	-	-	-
3% meter loss	184,066	-	-	-	-	-
Flushing	256,250					
SJC#3 FD use	5,000					
Leaks	800,000					
Other non-metered use	-					
Total other uses	(1,245,316)	-	-	-	-	-
Net production	6,547,684	-	-	-	-	-

	Jul	Aug	Sep	Oct	Nov	Dec
Gross Production	-	-	-	-	-	-
3% meter loss	-	-	-	-	-	-
Flushing						
SJC#3 FD use						
Leaks						
Other non-metered use						
Total other uses	-	-	-	-	-	-
Net production	-	-	-	-	-	-

Water Consumption & Production

Revised meter loss reporting begin 07/09 (per Robert Krebs, Evergreen Rural Water Assoc.)

Period		Use (Consumption)	Cumulative Use YTD	Flow (Production)	Unaccounted over / (under)	Cumulative Flow YTD	Average Daily Flow	
		Metered/Other	Use YTD	Unaccounted		3% meter loss	2,869,028	
2023	Jan-23	5,964,425	5,964,425	6,653,000	-688,575	6,653,000	214,613	
	Feb-23	5,592,309	11,556,734	5,829,000	-236,691	12,482,000	208,179	
	Mar-23	6,542,184	18,098,918	7,012,000	-469,816	19,494,000	226,194	
	Apr-23	6,817,860	24,916,778	7,746,000	-928,140	27,240,000	258,200	
	May-23	9,087,367	34,004,144	9,315,000	-227,633	36,555,000	300,484	
	Jun-23	10,624,699	44,628,844	11,385,000	-760,301	47,940,000	379,500	
	Jul-23	13,638,938	58,267,782	13,850,000	-211,062	61,790,000	446,774	
	Aug-23	12,839,134	71,106,916	13,308,000	-468,866	75,098,000	429,290	
	Sep-23	9,619,225	80,726,141	10,230,000	-610,775	85,328,000	341,000	
	Average	Oct-23	7,200,290	87,926,431	7,709,000	-508,710	93,037,000	248,677
	Monthly Use	Nov-23	6,533,456	94,459,887	7,201,000	-667,544	100,238,000	240,033
	8,425,396	Dec-23	6,644,860	101,104,747	7,170,000	-525,140	107,408,000	231,290
Year Total:		12	101,104,747	Cumulative	107,408,000	-6,303,253	Cumulative	293,686
		Metered/Other	Use YTD	Unaccounted		3% meter loss	2,869,028	
2024	Jan-24	7,380,857	7,380,857	7,793,000	-412,143	7,793,000	251,387	
	Feb-24	0	7,380,857	0	0	7,793,000	0	
	Mar-24	0	7,380,857	0	0	7,793,000	0	
	Apr-24	0	7,380,857	0	0	7,793,000	0	
	May-24	0	7,380,857	0	0	7,793,000	0	
	Jun-24	0	7,380,857	0	0	7,793,000	0	
	Jul-24	0	7,380,857	0	0	7,793,000	0	
	Aug-24	0	7,380,857	0	0	7,793,000	0	
	Sep-24	0	7,380,857	0	0	7,793,000	0	
	Average	Oct-24	0	7,380,857	0	0	7,793,000	0
	Monthly Use	Nov-24	0	7,380,857	0	0	7,793,000	0
	7,380,857	Dec-24	0	7,380,857	0	0	7,793,000	0
Year Total:		1	7,380,857	Cumulative	7,793,000	-412,143	Cumulative	251,387
3 Year Average		Use 8,461,263 gal/month	Flow 8,989,240 gal/month		Daily Flow 281,631			

Utilization of Sustainable Annual Water System Capacity

Period start: Feb-23
Period end: Jan-24

Sustainable Annual Yield (TFH Comprehensive Water System Plan Update, June, 2013, page 3-6)	205 million gallons
Annual use - 12 month period	109 million gallons
percent of Sustainable Annual Yield	53%
Exceeds Sustainable Yield?	No

Finish Water Flow to Town

Source: Water Treatment Facility Monthly Report

Revised reporting period per K. Anderson

Start/end dates may change monthly.

31 Days in reporting period.

January 2, 2024		January 31, 2024	
Day	Flow	Day	Flow
1	240	1	
2	211	2	
3	223	3	
4	237	4	
5	220	5	
6	221	6	
7	229	7	
8	199	8	
9	214	9	
10	213	10	
11	247	11	
12	250	12	
13	312	13	
14	369	14	
15	355	15	
16	235	16	
17	252	17	
18	248	18	
19	204	19	
20	350	20	
21	354	21	
22	334	22	
23	236	23	
24	225	24	
25	213	25	
26	232	26	
27	221	27	
28	184	28	
29	210	29	
30	274	30	
31	281	31	
31	7,793	0	-
		Total Days	31
		Total Flow	7,793

Finish Water Flow to Town
Source: Water Treatment Facility Monthly Report

1,000's of gallons

TOWN OF FRIDAY HARBOR

Water Consumption By Customer Class

2023	COM	IND	MFR	PA	SFR	Special	Other Uses	TOTAL	% of Use	Avg Daily Use
Jan	1,124,538	85,828	1,586,772	465,051	2,356,600	8,779	1,230,077	6,857,645	6.9%	221,214
Feb	1,036,345	69,471	1,549,966	414,776	2,190,836	28,906	158,709	5,449,009	5.5%	187,897
Mar	1,318,786	90,816	1,651,296	561,162	2,429,922	29,750	182,452	6,264,184	6.3%	202,070
Apr	1,385,848	91,375	1,603,722	683,068	2,455,339	32,866	187,567	6,439,785	6.5%	214,659
May	1,724,169	122,758	1,923,778	1,007,855	3,633,464	43,206	253,657	8,708,887	8.8%	280,932
Jun	2,109,315	187,119	2,066,307	1,286,154	4,312,631	133,279	302,844	10,397,649	10.5%	346,588
Jul	2,762,059	250,100	2,442,009	1,879,772	5,581,112	213,820	393,866	13,522,738	13.6%	436,217
Aug	2,720,379	222,516	2,273,923	1,657,256	5,123,796	227,037	366,747	12,591,654	12.7%	406,182
Sep	2,104,079	157,590	1,927,425	1,073,213	3,673,231	119,486	271,651	9,326,675	9.4%	310,889
Oct	1,493,820	109,819	1,790,016	654,699	2,658,956	52,292	202,788	6,962,390	7.0%	224,593
Nov	1,252,153	79,824	1,738,138	527,557	2,491,986	32,144	183,654	6,305,456	6.4%	210,182
Dec	1,176,475	64,502	1,723,737	509,671	2,579,023	40,735	182,824	6,276,967	6.3%	202,483
Total	20,207,966	1,531,718	22,277,089	10,720,234	39,486,896	962,300	3,916,836	99,103,039	100.0%	270,773
Average	1,683,997	127,643	1,856,424	893,353	3,290,575	80,192	326,403	Total Use		99,103,039
								Total Loss		8,258,587
% of Use	20.4%	1.5%	22.5%	10.8%	39.8%	1.0%	4.0%	Flow (Use+Loss)		190,413,078
% of Flow	10.6%	0.8%	11.7%	5.6%	20.7%	0.5%	2.1%	Loss as % of Flow		4.3%

2024	COM	IND	MFR	PA	SFR	Special	Other Uses	TOTAL	% of Use	Avg Daily Use
Jan	1,256,441	74,748	1,751,220	479,558	2,535,257	38,317	1,245,316	7,380,857	100.0%	238,092
Feb							-	-	0.0%	-
Mar							-	-	0.0%	-
Apr							-	-	0.0%	-
May							-	-	0.0%	-
Jun							-	-	0.0%	-
Jul							-	-	0.0%	-
Aug							-	-	0.0%	-
Sep							-	-	0.0%	-
Oct							-	-	0.0%	-
Nov							-	-	0.0%	-
Dec							-	-	0.0%	-
Total	1,256,441	74,748	1,751,220	479,558	2,535,257	38,317	1,245,316	7,380,857	100.0%	238,092
Average	1,256,441	74,748	1,751,220	479,558	2,535,257	38,317	103,776	Total Use		7,380,857
								Total Loss		615,071
% of Use	17.0%	1.0%	23.7%	6.5%	34.3%	0.5%	16.9%	Flow (Use+Loss)		7,793,000
% of Flow	16.1%	1.0%	22.5%	6.2%	32.5%	0.5%	16.0%	Loss as % of Flow		7.9%

Prevention of Wastewater Facility Overloading

Period start: Jan-23

Period end: Dec-23

INFLUENT BOD LOADING

(Pounds per Day)

Design Criteria (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.A) max.month

1,600

85% Capacity Planning
Threshold (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.B.1)

1,360

Month with highest average
loading in period

Mar-23

Highest average monthly
loading in period

857

% of Design Criteria

54%

Exceeds Design Criteria?

No

Previous month's loading

686

Following month's loading

726

Exceeds Planning Threshold
for 3 consecutive months?

No

AVG. EFFLUENT FLOW

(Millions of Gallons per Day)

Design Criteria (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.A) max.month

0.69000

85% Capacity Planning
Threshold (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.B.1)

0.58650

Month with highest average
flow in period

Jan-24

Highest average monthly flow
in period

0.3991

% of Design Criteria

58%

Exceeds Design Criteria?

No

Previous month's flow

0.3136

Following month's flow

0.3177

Exceeds Planning Threshold
for 3 consecutive months?

No

SUSPENDED SOLIDS LOADING

(Pounds per Day)

Design Criteria (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.A) max.month

1,110

85% Capacity Planning
Threshold (06/06 NPDES
Permit #WA-002358-2, pg 12,
paragraph S4.B.1)

944

Month with highest average
loading in period

Jan-24

Highest average monthly
loading in period

1,057

% of Design Criteria

95%

Exceeds Design Criteria?

No

Previous month's loading

883

Following month's loading

1,035

Exceeds Planning Threshold for
3 consecutive months?

No