

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

www.fridayharbor.org

Period ending: March 2024

*Based on April's billing cycle
(March's Water and Refuse Usage)

Data provided by
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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	36,055
Sfr	1,025	2,612,184
PA	82	573,042
Mfr	133	1,688,576
Ind	14	83,625
Com	220	1,333,676
TOTAL	1,476	6,327,158

16-May-24

Water - Use MTD by Location

Water Class	Accounts	Gallons
Location: IN		
Spe	2	36,055
Sfr	667	1,823,679
PA	73	422,888
Mfr	128	1,599,167
Ind	13	80,968
Com	217	1,308,814
	1,100	5,271,571
Location: Out		
Sfr	358	788,505
PA	9	150,154
Mfr	5	89,409
Ind	1	2,657
Com	3	24,862
	376	1,055,587
TOTAL	1,476	6,327,158

Water use MTD - Accounts with Sewer

Sewer Class	Accounts	Gallons
Location: IN		
Mfr In/low Strength	61	584,665
Com In/lo Strength	164	697,237
Dot In/lo Strength	3	26,881
Ind In/hi Strength	1	21,477
Ind In/lo Strength	10	54,622
Lmf In/lo Strength	1	3,482
Com In/hi Strength	42	583,284
Mfr In/lo Strength	61	646,651
Mhp In/lo Strength	2	297,014
PA In/hi Strength	3	66,039
PA In/lo Strength	46	267,989
Sfr IN Town	641	1,779,596
Low Rate / IN Town	10	20,521
	1,045	5,049,458
Location: Out		
UW Out/hi Strength	1	109,342
Mfr Out/lo Strength	1	12,204
Sfr Out of Town	4	8,067
	6	129,613
TOTAL	1,051	5,179,071

16-May-24

Refuse - Pickups by Class

Class	Pickups
Com	3,071.0
Ind	25.0
Mfr	560.0
PA	188.5
Refuse Only	418.0
Sfr	2,208.0
TOTAL	6,470.5

Refuse - Active Accounts

Refuse Type	Accounts
Cans	883
Cans Low Rate	12
Compactors	4
Large Dumpster	77
Medium Dumpste	55
PA	42
Small Dumpster	41
TOTAL	1,114

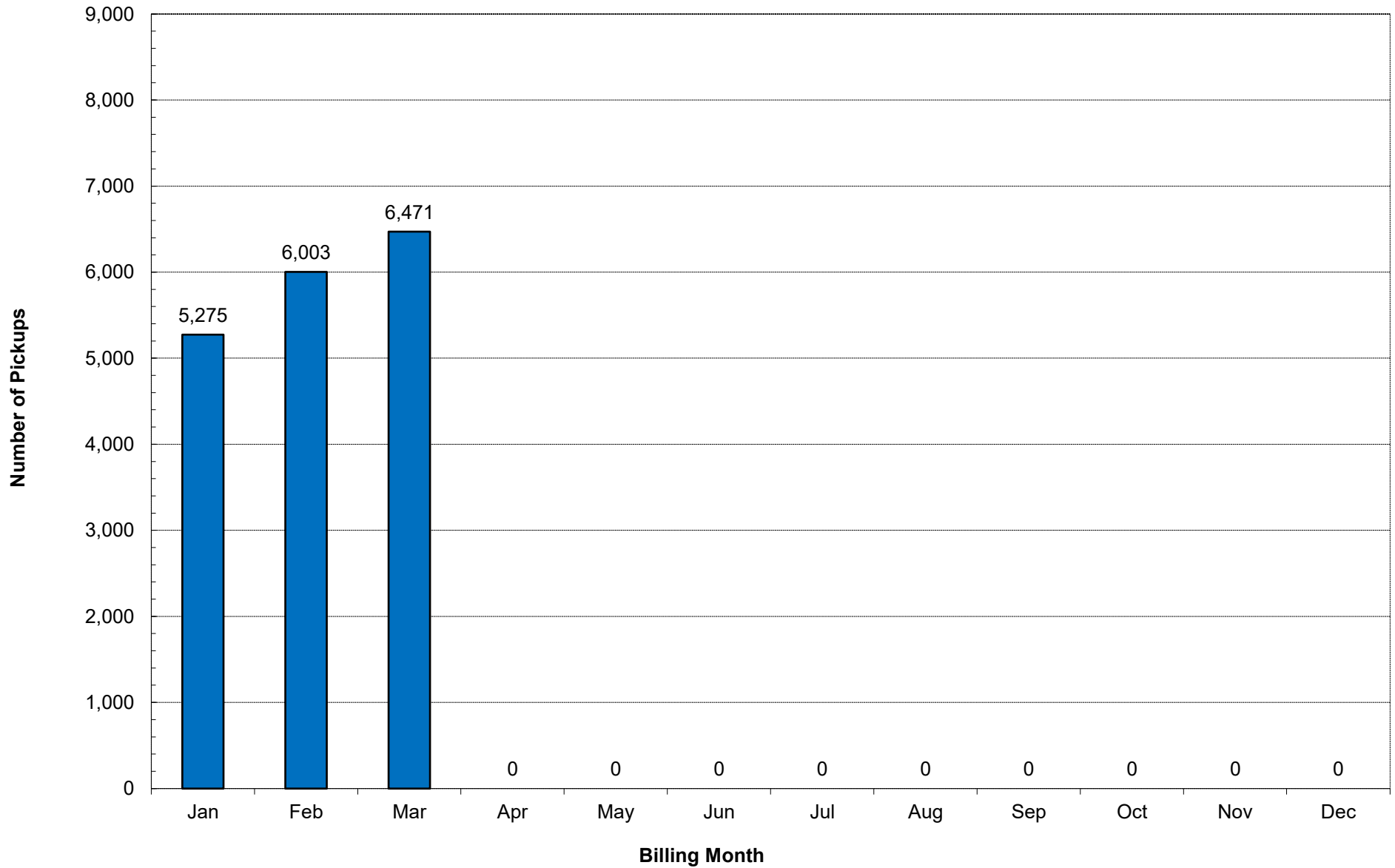
Recycle - pickups by Class

Class	Pickups
Com	7
Ind	0
Mfr	83
PA	0
RefuseOnly	29
Sfr	784
TOTAL	903

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	2,106.0	377.0	143.5	559.0	20.0	2,797.0	6,002.5
Mar	2,208.0	418.0	188.5	560.0	25.0	3,071.0	6,470.5
Apr							-
May							-
Jun							-
Jul							-
Aug							-
Sep							-
Oct							-
Nov							-
Dec							-
YTD	6,509.0	1,151.0	483.0	1,701.5	66.5	7,836.5	17,747.5

Total Refuse Pickups by Month - 2023



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	0.00	Feb-27		Feb-30	
Mar-24	12.00	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	1-Feb	to	29-Feb	29	6,510,000	
Mar	1-Mar	to	31-Mar	31	7,342,000	
Apr		to		-	-	
May		to		-	-	
Jun		to		-	-	
Jul		to		-	-	
Aug		to		-	-	
Sep		to		-	-	
Oct		to		-	-	
Nov		to		-	-	
Dec		to		-	-	
				90	21,645,000	

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
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	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	2.36	3.10
Mar	3.62	2.88	3.27	1.48	0.87	1.25	1.18	2.64	1.99	1.48	2.07
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	8.86	27.95

Cumulative thru

Dec	29.05	26.45	25.82	26.54	23.40	36.79	35.46	25.94	22.35	8.86
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TOWN OF FRIDAY HARBOR

Net Water Production - 2023

Amounts in Gallons

	Jan	Feb	Mar	Apr	May	Jun
Gross Production	7,793,000	6,510,000	7,342,000	-	-	-
3% meter loss	184,066	163,074	189,815	-	-	-
Flushing	256,250	101,575	160,900			
SJC#3 FD use	5,000	5,000	9,700			
Leaks	800,000	200,000	250,000			
Other non-metered use	-					
Total other uses	(1,245,316)	(469,649)	(610,415)	-	-	-
Net production	6,547,684	6,040,351	6,731,585	-	-	-

	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	5,905,437	13,286,294	6,510,000	-604,563	14,303,000	232,500	
	Mar-24	6,937,573	20,223,867	7,342,000	-404,427	21,645,000	236,839	
	Apr-24	0	20,223,867	0	0	21,645,000	0	
	May-24	0	20,223,867	0	0	21,645,000	0	
	Jun-24	0	20,223,867	0	0	21,645,000	0	
	Jul-24	0	20,223,867	0	0	21,645,000	0	
	Aug-24	0	20,223,867	0	0	21,645,000	0	
	Sep-24	0	20,223,867	0	0	21,645,000	0	
	Average	Oct-24	0	20,223,867	0	0	21,645,000	0
	Monthly Use	Nov-24	0	20,223,867	0	0	21,645,000	0
	6,741,289	Dec-24	0	20,223,867	0	0	21,645,000	0
Year Total:		3	20,223,867	Cumulative	21,645,000	-1,421,133	Cumulative	240,242
3 Year Average		Use 8,310,170 gal/month	Flow 8,836,407 gal/month		Daily Flow 277,916			

Utilization of Sustainable Annual Water System Capacity

Period start: Apr-23
Period end: Mar-24

Sustainable Annual Yield (TFH Comprehensive Water System Plan Update, June, 2013, page 3-6)	205 million gallons
Annual use - 12 month period	110 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.

March 1, 2024		March 31, 2024	
Day	Flow	Day	Flow
1	199	1	
2	196	2	
3	266	3	
4	256	4	
5	241	5	
6	260	6	
7	245	7	
8	213	8	
9	232	9	
10	223	10	
11	218	11	
12	205	12	
13	223	13	
14	228	14	
15	232	15	
16	251	16	
17	265	17	
18	241	18	
19	245	19	
20	249	20	
21	241	21	
22	226	22	
23	246	23	
24	235	24	
25	213	25	
26	231	26	
27	233	27	
28	302	28	
29	230	29	
30	220	30	
31	277	31	
31	7,342	0	-

Total Days 31

Total Flow 7,342

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	36.5%	238,092
Feb	1,117,694	65,357	1,481,249	458,132	2,265,621	47,735	469,649	5,905,437	29.2%	203,636
Mar	1,333,676	83,625	1,688,576	573,042	2,612,184	36,055	610,415	6,937,573	34.3%	223,793
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	3,707,811	223,730	4,921,045	1,510,732	7,413,062	122,107	2,325,380	20,223,867	100.0%	222,240
Average	1,235,937	74,577	1,640,348	503,577	2,471,021	40,702	193,782	Total Use		20,223,867
								Total Loss		1,685,322
% of Use	18.3%	1.1%	24.3%	7.5%	36.7%	0.6%	11.5%	Flow (Use+Loss)		21,645,000
% of Flow	17.1%	1.0%	22.7%	7.0%	34.2%	0.6%	10.7%	Loss as % of Flow		7.8%

Prevention of Wastewater Facility Overloading

Period start: Mar-23

Period end: Feb-24

INFLUENT BOD LOADING

(Pounds per Day)

AVG. EFFLUENT FLOW

(Millions of Gallons per Day)

SUSPENDED SOLIDS LOADING

(Pounds per Day)

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

1,600

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

0.69000

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)

1,360

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

0.58650

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

May-23

Month with highest average
flow in period

Jan-24

Month with highest average
loading in period

Jan-24

Highest average monthly
loading in period

806

Highest average monthly flow
in period

0.3991

Highest average monthly
loading in period

1,057

% of Design Criteria

50%

% of Design Criteria

58%

% of Design Criteria

95%

Exceeds Design Criteria?

No

Exceeds Design Criteria?

No

Exceeds Design Criteria?

No

Previous month's loading

726

Previous month's flow

0.3136

Previous month's loading

883

Following month's loading

788

Following month's flow

0.3177

Following month's loading

1,035

Exceeds Planning Threshold
for 3 consecutive months?**No**Exceeds Planning Threshold
for 3 consecutive months?**No**Exceeds Planning Threshold for
3 consecutive months?**No**