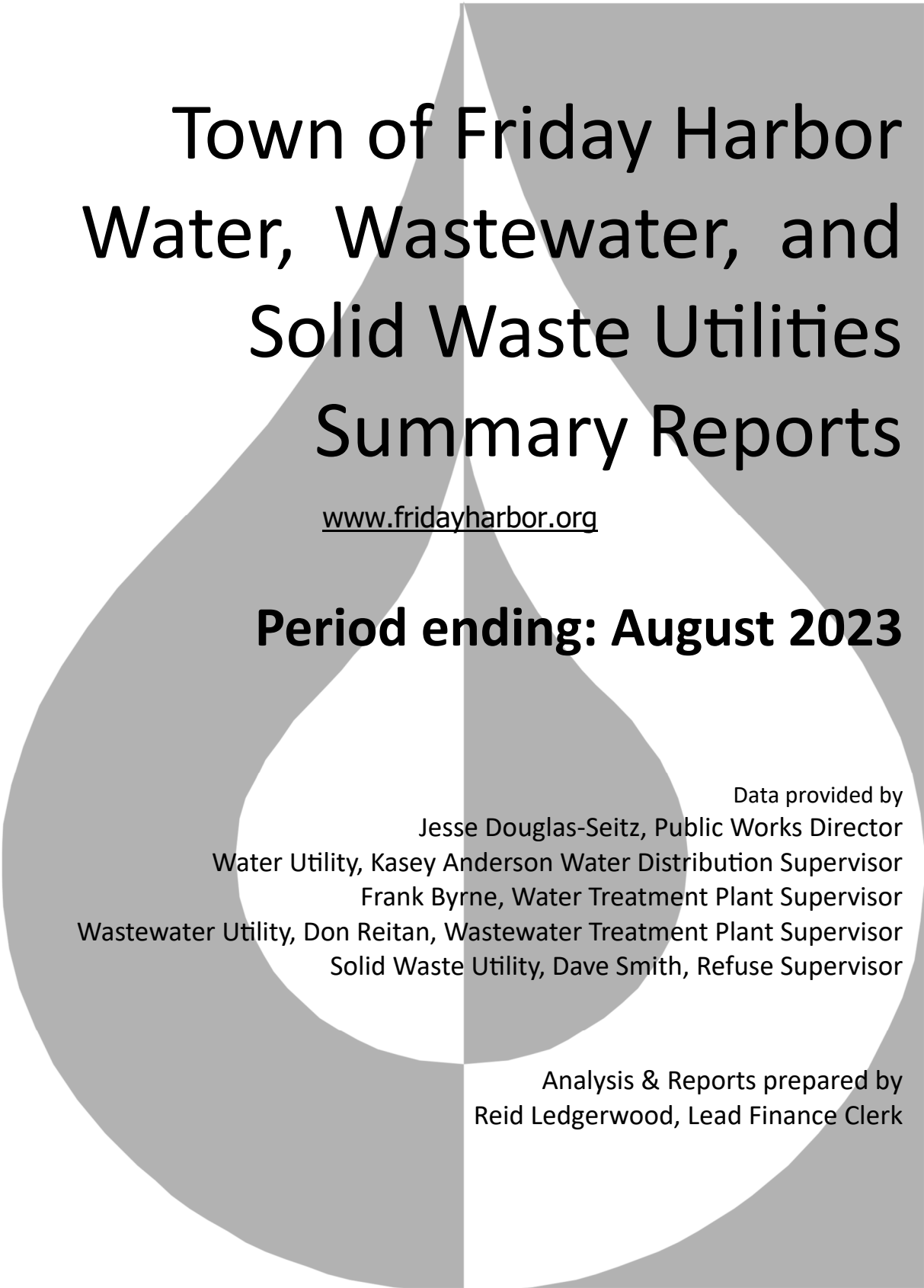




Town of Friday Harbor Water, Wastewater, and Solid Waste Utilities Summary Reports

www.fridayharbor.org

Period ending: August 2023

Data provided by
Jesse Douglas-Seitz, Public Works Director
Water Utility, Kasey Anderson Water Distribution Supervisor
Frank Byrne, Water Treatment Plant Supervisor
Wastewater Utility, Don Reitan, 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	3	213,820
Sfr	1,018	5,581,112
PA	84	1,879,772
Mfr	137	2,442,009
Ind	14	250,100
Com	221	2,762,059
TOTAL	1,477	13,128,872

Water - Use MTD by Location

Water Class	Accounts	Gallons
Location: IN		
Spe	3	213,820
Sfr	661	3,161,470
PA	75	1,523,157
Mfr	132	2,104,227
Ind	13	246,375
Com	218	2,741,390
	1,102	9,990,439
Location: Out		
Sfr	357	2,419,642
PA	9	356,615
Mfr	5	337,782
Ind	1	3,725
Com	3	20,669
	375	3,138,433
TOTAL	1,477	13,128,872

Water use MTD - Accounts with Sewer

Sewer Class	Accounts	Gallons
Location: IN		
Mfr In/low Strength	63	968,316
Com In/lo Strength	166	1,536,391
Dot In/lo Strength	3	134,735
Ind In/hi Strength	1	40,808
Ind In/lo Strength	10	189,105
Lmf In/lo Strength	1	1,476
Com In/hi Strength	41	1,097,774
Mfr In/lo Strength	61	747,783
Mhp In/lo Strength	2	300,400
PA In/hi Strength	3	176,512
PA In/lo Strength	47	708,057
Sfr IN Town	637	3,090,548
Low Rate / IN Town	10	31,512
	1,045	9,023,417
Location: Out		
UW Out/hi Strength	1	245,300
Mfr Out/lo Strength	1	13,061
Sfr Out of Town	4	23,816
	6	282,177
TOTAL	1,051	9,305,594

25-Sep-23

Refuse - Pickups by Class

Class	Pickups
Com	4,219.0
Ind	18.5
Mfr	626.5
PA	106.0
Refuse Only	608.0
Sfr	2,507.0
TOTAL	8,085.0

Refuse - Active Accounts

Refuse Type	Accounts
Cans	882
Cans Low Rate	12
Compactors	4
Large Dumpster	76
Medium Dumpste	57
PA	43
Small Dumpster	43

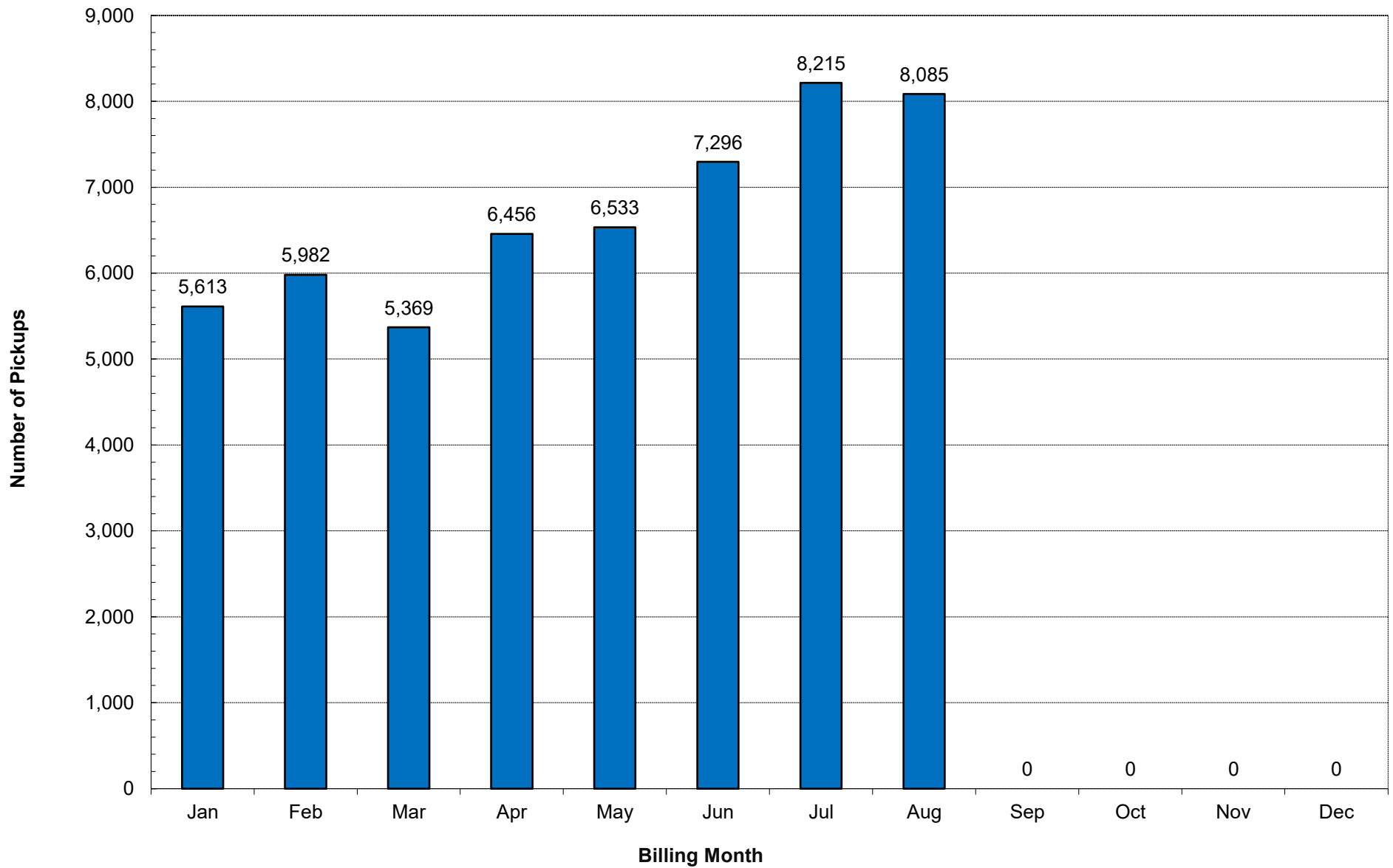
Recycle - pickups by Class

Class	Pickups
Com	1
Ind	6
Mfr	91
PA	0
RefuseOnly	31
Sfr	983
TOTAL	1,112

Refuse Pickups by Account Type - 2023 YTD

Billing Month	SFR	Refuse Only	PA	MFR	IND	COM	Total
Jan	1,790.0	340.0	97.0	507.5	24.0	2,854.5	5,613.0
Feb	1,974.0	399.5	135.0	595.0	17.5	2,861.0	5,982.0
Mar	1,767.0	318.0	151.0	490.5	18.5	2,624.0	5,369.0
Apr	2,105.0	466.5	173.0	573.5	19.0	3,118.5	6,455.5
May	2,125.0	414.5	190.0	551.0	22.5	3,230.0	6,533.0
Jun	2,564.0	502.0	169.5	599.5	26.5	3,434.3	7,295.8
Jul	2,612.0	538.0	145.0	684.5	22.0	4,213.0	8,214.5
Aug	2,507.0	608.0	106.0	626.5	18.5	4,219.0	8,085.0
Sep							-
Oct							-
Nov							-
Dec							-
YTD	17,444.0	3,586.5	1,166.5	4,628.0	168.5	26,554.3	53,547.8

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-15	0.00	Jan-18	0.00	Jan-21	0.00
Feb-15	0.00	Feb-18	0.00	Feb-21	0.00
Mar-15	0.00	Mar-18	8.75	Mar-21	8.25
Apr-15	6.50	Apr-18	8.25	Apr-21	4.30
May-15	0.00	May-18	1.50	May-21	4.30
Jun-15	-13.00	Jun-18	-10.50	Jun-21	-5.50
Jul-15	-29.50	Jul-18	-29.50	Jul-21	-34.00
Aug-15	-42.25	Aug-18	-42.00	Aug-21	-48.00
Sep-15	-49.50	Sep-18	-50.00	Sep-21	-48.00
Oct-15	-54.50	Oct-18	-54.50	Oct-21	-54.50
Nov-15	-17.25	Nov-18	-55.50	Nov-21	-55.00
Dec-15	0.00	Dec-18	-26.00	Dec-21	3.00
Jan-16	0.00	Jan-19	0.00	Jan-22	8.00
Feb-16	0.00	Feb-19	0.00	Feb-22	8.00
Mar-16	0.00	Mar-19	2.75	Mar-22	8.75
Apr-16	6.00	Apr-19	2.75	Apr-22	8.75
May-16	-2.50	May-19	-0.75	May-22	7.75
Jun-16	-11.00	Jun-19	-2.00	Jun-22	3.50
Jul-16	-21.00	Jul-19	-16.00	Jul-22	-5.50
Aug-16	-36.50	Aug-19	-26.25	Aug-22	-19.00
Sep-16	-49.50	Sep-19	-40.00	Sep-22	-34.50
Oct-16	-51.00	Oct-19	-46.25	Oct-22	-43.00
Nov-16	-45.50	Nov-19	-49.75	Nov-22	-42.25
Dec-16	-10.35	Dec-19	-49.50	Dec-22	-34.00
Jan-17	0.00	Jan-20	-11.00	Jan-23	0.00
Feb-17	0.00	Feb-20	0.00	Feb-23	1.50
Mar-17	2.75	Mar-20	0.00	Mar-23	2.75
Apr-17	9.00	Apr-20	4.00	Apr-23	8.50
May-17	4.75	May-20	0.00	May-23	8.00
Jun-17	-4.00	Jun-20	-0.75	Jun-23	-2.75
Jul-17	-19.00	Jul-20	-8.50	Jul-23	-12.00
Aug-17	-32.00	Aug-20	-22.50	Aug-23	-24.75
Sep-17	-43.00	Sep-20	-34.00	Sep-23	
Oct-17	-50.50	Oct-20	-42.50	Oct-23	
Nov-17	-48.00	Nov-20	-45.25	Nov-23	
Dec-17	-11.50	Dec-20	-28.25	Dec-23	

Flow to Town (Gross Water Production) 2023

Billing Month	Start Date		End Date	Days in Period	Gross Flow to Town
Jan	13-Dec	to	9-Jan	28	6,934,000
Feb	10-Jan	to	7-Feb	29	6,653,000
Mar	8-Feb	to	4-Mar	25	5,829,000
Apr	5-Mar	to	2-Apr	29	7,012,000
May	3-Apr	to	2-May	30	7,746,000
Jun	3-May	to	31-May	29	9,315,000
Jul	1-Jun	to	30-Jun	30	11,385,000
Aug	1-Jul	to	31-Jul	31	13,850,000
Sep		to		-	-
Oct		to		-	-
Nov		to		-	-
Dec		to		-	-
				231	68,724,000

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

Aug	15.21	13.71	18.54	11.94	12.74	14.76	19.85	16.57	15.77	15.32
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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		3.83
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			1.69
Oct	3.53	4.80	4.28	2.23	3.33	3.39	4.34	3.78			3.71
Nov	6.19	3.47	4.32	4.32	2.1	4.68	11.31	3.67			5.01
Dec	5.26	4.02	3.83	4.26	3.63	6.81	4.59	3.55			4.49
Total	29.05	26.45	25.82	26.54	23.40	36.79	35.46	25.94	9.82	0.00	28.24

Cumulative thru

Aug	12.79	12.76	12.68	14.46	11.60	19.57	11.46	14.93	9.82	0.00
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Net Water Production - 2023

Amounts in Gallons

	Jan	Feb	Mar	Apr	May	Jun
Gross Production	6,934,000	6,653,000	5,829,000	7,012,000	7,746,000	9,315,000
3% meter loss	178,437	168,827	158,709	182,452	187,567	253,657
Flushing	65,195	113,030	35,200	110,500	72,000	163,300
SJC#3 FD use	5,000	5,000	5,000	5,000	34,300	29,300
Leaks	100,000	50,000	103,100	162,500	271,775	185,880
Other non-metered use	-					
Total other uses	(348,632)	(336,857)	(302,009)	(460,452)	(565,642)	(632,137)
Net production	6,585,368	6,316,143	5,526,991	6,551,548	7,180,358	8,682,863

	Jul	Aug	Sep	Oct	Nov	Dec
Gross Production	11,385,000	13,850,000	-	-	-	-
3% meter loss	302,844	393,866	-	-	-	-
Flushing	109,350	11,200				
SJC#3 FD use	5,000	5,000				
Leaks	112,700	100,000				
Other non-metered use						
Total other uses	(529,894)	(510,066)	-	-	-	-
Net production	10,855,106	13,339,934	-	-	-	-

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
2021							
	Jan-21	6,818,211	6,818,211	7,320,000	-501,789	7,320,000	236,129
	Feb-21	7,124,868	13,943,079	7,539,000	-414,132	14,859,000	269,250
	Mar-21	6,271,616	20,214,695	7,160,000	-888,384	22,019,000	230,968
	Apr-21	7,669,307	27,884,002	8,464,000	-794,693	30,483,000	282,133
	May-21	9,525,250	37,409,253	10,115,000	-589,750	40,598,000	326,290
	Jun-21	10,293,730	47,702,983	10,626,000	-332,270	51,224,000	354,200
	Jul-21	13,591,377	61,294,359	13,725,000	-133,623	64,949,000	442,742
	Aug-21	14,723,426	76,017,785	14,978,000	-254,574	79,927,000	483,161
	Sep-21	11,630,682	87,648,467	12,019,000	-388,318	91,946,000	400,633
Average	Oct-21	8,004,636	95,653,104	8,502,000	-497,364	100,448,000	274,258
Monthly Use	Nov-21	7,027,754	102,680,858	7,580,000	-552,246	108,028,000	252,667
9,093,646	Dec-21	6,442,893	109,123,751	6,975,000	-532,107	115,003,000	225,000
Year Total:	12	109,123,751	Cumulative	115,003,000	-5,879,249	Cumulative	314,786
2022							
	Jan-22	7,027,619	7,027,619	7,491,000	-463,381	7,491,000	241,645
	Feb-22	6,558,369	13,585,988	7,118,000	-559,631	14,609,000	254,214
	Mar-22	6,259,412	19,845,401	6,844,000	-584,588	21,453,000	220,774
	Apr-22	7,840,892	27,686,293	8,245,000	-404,108	29,698,000	274,833
	May-22	7,171,370	34,857,663	8,041,000	-869,630	37,739,000	259,387
	Jun-22	8,327,182	43,184,845	8,658,000	-330,818	46,397,000	288,600
	Jul-22	11,063,132	54,247,977	11,349,000	-285,868	57,746,000	366,097
	Aug-22	12,697,078	66,945,055	13,224,000	-526,922	70,970,000	426,581
	Sep-22	12,245,810	79,190,866	12,855,000	-609,190	83,825,000	428,500
Average	Oct-22	10,371,973	89,562,839	10,891,000	-519,027	94,716,000	351,323
Monthly Use	Nov-22	6,853,115	96,415,954	7,442,000	-588,885	102,158,000	248,067
8,587,165	Dec-22	6,630,021	103,045,975	7,372,000	-741,979	109,530,000	237,806
Year Total:	12	103,045,975	Cumulative	109,530,000	-6,484,025	Cumulative	299,819
2023							
	Jan-23	6,296,532	6,296,532	6,934,000	-637,468	6,934,000	223,677
	Feb-23	5,964,425	12,260,957	6,653,000	-688,575	13,587,000	237,607
	Mar-23	5,592,309	17,853,266	5,829,000	-236,691	19,416,000	188,032
	Apr-23	6,542,184	24,395,450	7,012,000	-469,816	26,428,000	233,733
	May-23	6,817,860	31,213,310	7,746,000	-928,140	34,174,000	249,871
	Jun-23	9,087,367	40,300,676	9,315,000	-227,633	43,489,000	310,500
	Jul-23	10,624,699	50,925,376	11,385,000	-760,301	54,874,000	367,258
	Aug-23	13,638,938	64,564,314	13,850,000	-211,062	68,724,000	446,774
	Sep-23	0	64,564,314	0	0	68,724,000	0
Average	Oct-23	0	64,564,314	0	0	68,724,000	0
Monthly Use	Nov-23	0	64,564,314	0	0	68,724,000	0
8,070,539	Dec-23	0	64,564,314	0	0	68,724,000	0
Year Total:	8	64,564,314	Cumulative	68,724,000	-4,159,686	Cumulative	282,182
3 Year Average							
		Use 8,647,939 gal/month		Flow 9,164,281 gal/month			Daily Flow 298,929

Utilization of Sustainable Annual Water System Capacity

Period start: Sep-22

Period end: Aug-23

Sustainable Annual Yield (TFH
Comprehensive Water System Plan
Update, June, 2013, page 3-6)

205 million gallons

Annual use - 12 month period
percent of Sustainable Annual Yield

107 million gallons
52%

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.

July 1, 2023		July 31, 2023	
Day	Flow	Day	Flow
1	612	1	
2	473	2	
3	415	3	
4	502	4	
5	472	5	
6	421	6	
7	526	7	
8	535	8	
9	350	9	
10	376	10	
11	450	11	
12	411	12	
13	443	13	
14	441	14	
15	407	15	
16	489	16	
17	461	17	
18	479	18	
19	481	19	
20	438	20	
21	480	21	
22	465	22	
23	432	23	
24	428	24	
25	355	25	
26	395	26	
27	404	27	
28	404	28	
29	470	29	
30	451	30	
31	384	31	
31	13,850	0	-

Total Days 31

Total Flow 13,850

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

2022	COM	IND	MFR	PA	SFR	Special	Other Uses	TOTAL	% of Use	Avg Daily Use
Jan	1,349,356	106,940	1,859,134	390,738	2,869,118	6,043	446,290	7,027,619	6.8%	226,697
Feb	1,044,244	99,730	1,679,131	523,331	2,437,867	16,677	757,389	6,558,369	6.4%	226,151
Mar	1,111,601	108,470	1,526,387	851,547	2,141,873	12,600	506,934	6,259,412	6.1%	201,917
Apr	1,482,269	129,010	1,761,595	896,903	2,560,915	5,281	1,004,919	7,840,892	7.6%	261,363
May	1,485,784	134,610	1,709,947	742,139	2,679,584	25,247	394,059	7,171,370	7.0%	231,335
Jun	1,771,620	188,788	1,755,772	912,234	3,102,069	17,907	578,792	8,327,182	8.1%	277,573
Jul	2,260,944	205,140	2,180,450	1,456,449	4,349,214	40,747	570,188	11,063,132	10.7%	356,875
Aug	2,511,136	275,399	2,223,989	1,730,159	5,306,988	50,230	599,177	12,697,078	12.3%	409,583
Sep	2,501,949	256,415	2,158,719	1,524,596	4,978,195	126,874	699,062	12,245,810	11.9%	408,194
Oct	2,129,765	206,125	1,966,126	1,031,142	4,334,714	48,306	655,795	10,371,973	10.1%	334,580
Nov	1,277,356	136,594	1,526,385	596,316	2,660,072	23,049	633,343	6,853,115	6.7%	228,437
Dec	1,150,611	86,957	1,635,626	523,905	2,603,272	63,882	565,768	6,630,021	6.4%	213,872
Total	20,076,635	1,934,178	21,983,261	11,179,459	40,023,881	436,843	7,411,718	103,045,975	100.0%	281,546
Average	1,673,053	161,182	1,831,938	931,622	3,335,323	36,404	617,643	Total Use		103,045,975
								Total Loss		6,484,025
% of Use	19.5%	1.9%	21.3%	10.8%	38.8%	0.4%	7.2%	Flow (Use+Loss)		109,530,000
% of Flow	18.3%	1.8%	20.1%	10.2%	36.5%	0.4%	6.8%	Loss as % of Flow		5.9%

2023	COM	IND	MFR	PA	SFR	Special	Other Uses	TOTAL	% of Use	Avg Daily Use
Jan	1,232,316	71,100	1,688,526	489,071	2,448,171	18,716	348,632	6,296,532	9.8%	203,114
Feb	1,124,538	85,828	1,586,772	465,051	2,356,600	8,779	336,857	5,964,425	9.2%	205,670
Mar	1,036,345	69,471	1,549,966	414,776	2,190,836	28,906	302,009	5,592,309	8.7%	180,397
Apr	1,318,786	90,816	1,651,296	561,162	2,429,922	29,750	460,452	6,542,184	10.1%	218,073
May	1,385,848	91,375	1,603,722	683,068	2,455,339	32,866	565,642	6,817,860	10.6%	219,931
Jun	1,724,169	122,758	1,923,778	1,007,855	3,633,464	43,206	632,137	9,087,367	14.1%	302,912
Jul	2,109,315	187,119	2,066,307	1,286,154	4,312,631	133,279	529,894	10,624,699	16.5%	342,732
Aug	2,762,059	250,100	2,442,009	1,879,772	5,581,112	213,820	510,066	13,638,938	21.1%	439,966
Sep							-	-	0.0%	-
Oct							-	-	0.0%	-
Nov							-	-	0.0%	-
Dec							-	-	0.0%	-
Total	12,693,376	968,567	14,512,376	6,786,909	25,408,075	509,322	3,685,689	64,564,314	100.0%	264,608
Average	1,586,672	121,071	1,814,047	848,364	3,176,009	63,665	307,141	Total Use		64,564,314
								Total Loss		5,380,359
% of Use	19.7%	1.5%	22.5%	10.5%	39.4%	0.8%	5.7%	Flow (Use+Loss)		68,724,000
% of Flow	18.5%	1.4%	21.1%	9.9%	37.0%	0.7%	5.4%	Loss as % of Flow		7.8%

Prevention of Wastewater Facility Overloading

Period start: Aug-22

Period end: Jul-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

Dec-22

Highest average monthly flow
in period

0.2907

% of Design Criteria

42%

Exceeds Design Criteria?

No

Previous month's flow

0.2066

Following month's flow

0.2771

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

Aug-23

Highest average monthly
loading in period

706

% of Design Criteria

64%

Exceeds Design Criteria?

No

Previous month's loading

592

Following month's loading

599

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