

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

www.fridayharbor.org

Period ending: May 2018

Data provided by
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Utilization of Sustainable Annual Water System Capacity

Period start: Jun-17

Period end: May-18

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

114.7 million gallons
55.9%

exceeds Sustainable Yield?

No

TOWN OF FRIDAY HARBOR

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	
2016							
gallons	Jan-16	6,904,531	6,697,000	207,531		216,032	
	Feb-16	6,043,999	12,948,530	-177,001	12,918,000	222,179	
	Mar-16	5,087,613	18,036,143	-972,387	18,978,000	195,484	
	Apr-16	7,613,121	25,649,264	-6,879	26,598,000	254,000	
	May-16	8,678,417	34,327,681	-317,583	35,594,000	290,194	
	Jun-16	10,308,890	44,636,572	-414,110	46,317,000	357,433	
	Jul-16	12,724,140	57,360,712	-241,860	59,283,000	418,258	YTD
	Aug-16	14,723,626	72,084,337	-1,091,374	75,098,000	510,161	Unaccounted
	Sep-16	12,583,251	84,667,588	-12,749	87,694,000	419,867	as % of Flow
Average	Oct-16	8,473,803	93,141,391	421,803	95,746,000	259,742	0.38%
Monthly Use	Nov-16	6,714,525	99,855,916	1,656,525	100,804,000	168,600	
8,877,761	Dec-16	6,677,221	106,533,136	1,356,221	106,125,000	171,645	408,136
YEAR TOTAL:	12	107,043,584	Cumulative Metered/Other Use YTD	106,125,000	408,136 Unaccounted	Cumulative 3% meter loss	290,300 2,915,731
2017							
gallons	Jan-17	8,403,985	8,484,000	-80,015		273,677	
	Feb-17	6,321,628	14,725,613	-770,372	15,576,000	253,286	
	Mar-17	6,110,787	20,836,401	-688,213	22,375,000	219,323	
	Apr-17	8,344,725	29,181,126	-1,394,275	32,114,000	324,633	
	May-17	7,085,245	36,266,371	672,245	38,527,000	206,871	
	Jun-17	10,048,456	46,314,827	-256,544	48,832,000	343,500	
	Jul-17	14,681,313	60,996,140	-353,687	63,867,000	485,000	YTD
	Aug-17	13,661,250	74,657,390	-1,147,750	78,676,000	477,710	Unaccounted
	Sep-17	14,093,015	88,750,405	-874,985	93,644,000	498,933	as % of Flow
Average	Oct-17	7,823,149	96,573,554	-216,851	101,684,000	259,355	5.10%
Monthly Use	Nov-17	6,680,806	103,254,360	-592,194	108,957,000	242,433	
9,176,124	Dec-17	6,859,133	110,113,492	-211,867	116,028,000	228,097	-5,914,508
YEAR TOTAL:	12	110,113,492	Cumulative Metered/Other Use YTD	116,028,000	-5,914,508 Unaccounted	Cumulative 3% meter loss	317,735 2,989,222
2018							
gallons	Jan-18	6,473,834	7,347,000	-873,166		237,000	
	Feb-18	6,318,823	12,792,658	-735,177	14,401,000	251,929	
	Mar-18	5,860,732	18,653,389	-705,268	20,967,000	211,806	
	Apr-18	7,416,815	26,070,204	-839,185	29,223,000	275,200	
	May-18	7,687,108	33,757,312	-244,892	37,155,000	255,871	
	Jun-18	0	33,757,312	0	37,155,000	0	
	Jul-18	0	33,757,312	0	37,155,000	0	YTD
	Aug-18	0	33,757,312	0	37,155,000	0	Unaccounted
	Sep-18	0	33,757,312	0	37,155,000	0	as % of Flow
Average	Oct-18	0	33,757,312	0	37,155,000	0	9.14%
Monthly Use	Nov-18	0	33,757,312	0	37,155,000	0	
6,751,462	Dec-18	0	33,757,312	0	37,155,000	0	-3,397,688
YEAR TOTAL:	5	33,757,312	Cumulative Metered/Other Use YTD	37,155,000	-3,397,688 Unaccounted	Cumulative 3% meter loss	246,361 933,932

3 YEAR AVERAGES:	Use	Flow	Daily Flow	3 Year Loss as % of Flow
	4,855,203 :gal/month	8,941,655 :gal/month	188,032	3.43%

source: Monthly Water Treatment Plant Report & utility.mdb's
 3 yr cumulative flow 259,308,000
 3 yr unaccounted -8,904,059

WATER CONSUMPTION (Use) BY CUSTOMER CLASS

source: utilTry08 & 13.mdb

CLASS:	COM	IND	MFR	P.A	SFR	Special	other uses	TOTAL	% of Use	Avg Daily Use
2017										
JAN	1,522,040	64,130	1,784,220	551,340	2,709,390	26,341	1,746,524	8,403,985	7.6%	271,096
FEB	1,365,694	62,440	1,609,780	543,810	2,304,698	11,761	423,445	6,321,628	5.7%	217,987
MAR	1,260,276	59,000	1,487,140	553,910	2,123,792	16,589	610,080	6,110,787	5.5%	197,122
APR	1,822,081	82,410	1,735,510	818,880	2,721,771	24,848	1,139,225	8,344,725	7.6%	278,158
MAY	1,674,249	82,550	1,463,560	889,740	2,385,893	12,380	576,873	7,085,245	6.4%	228,556
JUN	2,446,960	164,880	1,824,870	1,242,690	3,826,796	112,208	430,052	10,048,456	9.1%	334,949
JUL	3,334,220	268,660	2,381,990	2,639,580	5,193,251	326,292	537,320	14,681,313	13.3%	473,591
AUG	3,357,600	237,730	2,092,660	2,205,820	4,655,884	342,879	768,677	13,661,250	12.4%	440,685
SEP	3,407,091	310,670	2,344,390	2,203,930	4,918,473	250,810	657,651	14,093,015	12.8%	469,767
OCT	1,865,743	210,540	1,634,240	925,160	2,679,317	17,669	490,480	7,823,149	7.1%	252,360
NOV	1,464,721	103,880	1,561,380	712,520	2,376,936	15,326	446,043	6,680,806	6.1%	222,694
DEC	1,371,120	107,260	1,598,730	883,340	2,437,286	26,115	435,282	6,859,133	6.2%	221,262
TOTAL	24,891,795	1,754,150	21,518,470	14,170,720	38,333,487	1,183,218	8,261,652	110,113,492	100.0%	300,857
AVERAGE	2,074,316	146,179	1,793,206	1,180,893	3,194,457	98,602	688,471	9,176,124	110,113,492 :USE for Year	:LOSS for Year

% of USE
% of FLOW

:FLOW (Use+Loss)
Loss as % of Flow

CLASS:	COM	IND	MFR	P.A	SFR	Special	other uses	TOTAL	% of Use	Avg Daily Use
2018										
JAN	1,312,140	61,070	1,614,762	626,860	2,424,228	18,020	416,754	6,473,834	19.2%	208,833
FEB	1,236,460	75,520	1,683,748	602,090	2,294,360	16,927	409,718	6,318,823	18.7%	217,890
MAR	1,154,050	65,030	1,497,650	428,330	2,161,960	28,836	524,876	5,860,732	17.4%	189,056
APR	1,670,940	100,680	1,702,730	749,850	2,426,860	18,042	747,713	7,416,815	22.0%	247,227
MAY	1,687,460	116,990	1,615,500	967,770	2,720,851	51,359	527,178	7,687,108	22.8%	247,971
JUN							0	0	0.0%	0
JUL							0	0	0.0%	0
AUG							0	0	0.0%	0
SEP							0	0	0.0%	0
OCT							0	0	0.0%	0
NOV							0	0	0.0%	0
DEC							0	0	0.0%	0
TOTAL	7,061,050	419,290	8,114,390	3,374,900	12,028,259	133,184	2,626,239	33,757,312	100.0%	222,088
AVERAGE	1,412,210	83,858	1,622,878	674,980	2,405,652	26,637	218,853	2,813,109	33,757,312 :USE for Year	-3,397,688 :LOSS for Year
% of USE	20.9%	1.2%	24.0%	10.0%	35.6%	0.4%	7.8%	100.0%	37,155,000 :FLOW (Use+Loss)	
% of FLOW	19.0%	1.1%	21.8%	9.1%	32.4%	0.4%	7.1%	90.9%	-9.1%	Loss as % of Flow

Water - use MTD

sourceDate
5 / 2018

Spe=Special, Sfr=Single Family Residential, P.A= Public Authority, Mfr=Multi-family, Ind=Industrial, Com=Commerc

Water Class	Accounts	Gallons
Spe	3	51,359
Sfr	976	2,720,851
PA	75	967,770
Mfr	119	1,615,500
Ind	16	116,990
Com	218	1,687,460
TOTAL	1,407	7,159,930

Water - use MTD by LocationsourceDate

5 / 2018

Spe=Special, Sfr=Single Family Residential, P.A= Public Authority, Mfr=Multi-family, Ind=Industrial, Com=Commerc

Water Class	Accounts	Gallons
Location: IN		
Spe	3	51,359
Sfr	622	1,788,771
PA	69	692,650
Mfr	114	1,505,550
Ind	13	102,460
Com	214	1,612,530
	<hr/> 1,035	<hr/> 5,753,320
Location: Out		
Sfr	354	932,080
PA	6	275,120
Mfr	5	109,950
Ind	3	14,530
Com	4	74,930
	<hr/> 372	<hr/> 1,406,610
TOTAL	1,407	7,159,930

Net Water Production - 2018

amounts in gallons

	Jan	Feb	Mar	Apr	May	Jun
Gross Production for billing period from WTP Chemical Weights & Finish Flow to Town Report	7,347,000	7,054,000	6,566,000	8,256,000	7,932,000	0
3% meter loss	181,712	177,273	160,076	200,073	214,798	0
Flushing	230,042	227,445	143,800	216,200	232,500	
SJC#3 FD use	5,000	5,000	5,000	5,000	5,000	
Leaks			216,000	247,840	14,400	
notes			University Road	1st St.N	Tucker/Larson	
other non-metered use				78,600	60,480	
notes				Strider-Tucker Ave.	849 Spring St.	
Additional water in storage						
notes						
Total other uses	-416,754	-409,718	-524,876	-747,713	-527,178	0
Net production	6,930,246	6,644,282	6,041,124	7,508,287	7,404,822	0

	Jul	Aug	Sep	Oct	Nov	Dec
Gross Production for billing period from WTP Chemical Weights & Finish Flow to Town Report	0	0	0	0	0	0
3% meter loss	0	0	0	0	0	0
Flushing						
SJC#3 FD use						
Leaks						
notes						
other non-metered use						
notes						
notes						
Total other uses	0	0	0	0	0	0
Net production	0	0	0	0	0	0

Flow to Town (Gross Water Production) 2018

Revised reporting period: per K. Anderson 03/06/17
to reflect meter reading dates (?).

Reporting (meter reading) period			days in period	Gross flow to Town	Flow to Town (millions)
	<i>from WTP Chem. Wts. & Finish Flow to Town Report</i>				
15-Dec	to	14-Jan	31	7,347,000	7,347
15-Jan	to	14-Feb	31	7,054,000	7,054
15-Feb	to	14-Mar	28	6,566,000	6,566
15-Mar	to	15-Apr	32	8,256,000	8,256
16-Apr	to	14-May	29	7,932,000	7,932
	to		0	0	
	to		0	0	
	to		0	0	
	to		0	0	
	to		0	0	
	to		0	0	
	to		0	0	
	to		0	0	
			151	37,155,000	37155.0

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

Revised reporting period: per K. Anderson 03/06/17
to reflect meter reading dates (?).
Start/End dates may change monthly.

29 :count of days in reporting period.

	Apr-18 flow (total flow)		May-18 flow (total flow)
day		day	
15		1	250
16	213	2	232
17	300	3	263
18	215	4	299
19	247	5	309
20	342	6	300
21	302	7	245
22	216	8	302
23	230	9	299
24	239	10	327
25	246	11	362
26	345	12	307
27	220	13	224
28	317	14	340
29	247	15	
30	194		
31			
days		days	
15	3873	14	4059
	TOTAL DAYS	<u>29</u>	
	TOTAL FLOW	<u>7932</u>	
		1,000's gallons	

TOWN OF FRIDAY HARBOR

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-12	-1.75	Jan-15	0.00	Jan-18	0.00
Feb-12	0.00	Feb-15	0.00	Feb-18	0.00
Mar-12	0.00	Mar-15	0.00	Mar-18	8.75
Apr-12	8.00	Apr-15	6.50	Apr-18	8.25
May-12	0.00	May-15	0.00	May-18	1.50
Jun-12	7.00	Jun-15	-13.00	Jun-18	
Jul-12	-19.00	Jul-15	-29.50	Jul-18	
Aug-12	-32.75	Aug-15	-42.25	Aug-18	
Sep-12	-45.00	Sep-15	-49.50	Sep-18	
Oct-12	-48.00	Oct-15	-54.50	Oct-18	
Nov-12	-24.25	Nov-15	-17.25	Nov-18	
Dec-12	0.00	Dec-15	0.00	Dec-18	
Jan-13	0.00	Jan-16	0.00	Jan-19	
Feb-13	0.00	Feb-16	0.00	Feb-19	
Mar-13	0.00	Mar-16	0.00	Mar-19	
Apr-13	8.50	Apr-16	6.00	Apr-19	
May-13	3.75	May-16	-2.50	May-19	
Jun-13	-3.75	Jun-16	-11.00	Jun-19	
Jul-13	-21.00	Jul-16	-21.00	Jul-19	
Aug-13	-34.25	Aug-16	-36.50	Aug-19	
Sep-13	-39.25	Sep-16	-49.50	Sep-19	
Oct-13	-43.50	Oct-16	-51.00	Oct-19	
Nov-13	-44.75	Nov-16	-45.50	Nov-19	
Dec-13	-26.00	Dec-16	-10.35	Dec-19	
Jan-14	0.00	Jan-17	0.00	Jan-20	
Feb-14	0.00	Feb-17	0.00	Feb-20	
Mar-14	0.00	Mar-17	2.75	Mar-20	
Apr-14	8.25	Apr-17	9.00	Apr-20	
May-14	5.00	May-17	4.75	May-20	
Jun-14	7.00	Jun-17	-4.00	Jun-20	
Jul-14	-20.50	Jul-17	-19.00	Jul-20	
Aug-14	-30.25	Aug-17	-32.00	Aug-20	
Sep-14	-42.75	Sep-17	-43.00	Sep-20	
Oct-14	-45.25	Oct-17	-50.50	Oct-20	
Nov-14	-46.50	Nov-17	-48.00	Nov-20	
Dec-14	0.00	Dec-17	-11.50	Dec-20	

Rainfall - Trout Lake Water Treatment Facility

source: Water Treatment Plant Weather Reports

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	1.95	1.95
MAY	1.08	1.24	0.78	1.26	1.69	2.09	3.07	1.09	2.20	1.04	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

MAY	11.28	12.86	15.31	8.69	11.13	12.83	18.04	12.93	13.99	13.95
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all figures in inches

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
JAN	3.97	2.17	1.60	5.10						
FEB	2.95	4.83	2.99	3.80						
MAR	3.62	2.88	3.27	1.48						
APR	0.51	0.75	2.20	3.10						
MAY	0.30	0.48	1.61	0.07						
JUN	0.14	1.22	0.75							
JUL	0.36	0.32	0.15							
AUG	0.94	0.11	0.11							
SEP	1.28	1.40	0.71							
OCT	3.53	4.80	4.28							
NOV	6.19	3.47	4.32							
DEC	5.26	4.02	3.83							
Total	29.05	26.45	25.82	13.55	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative thru

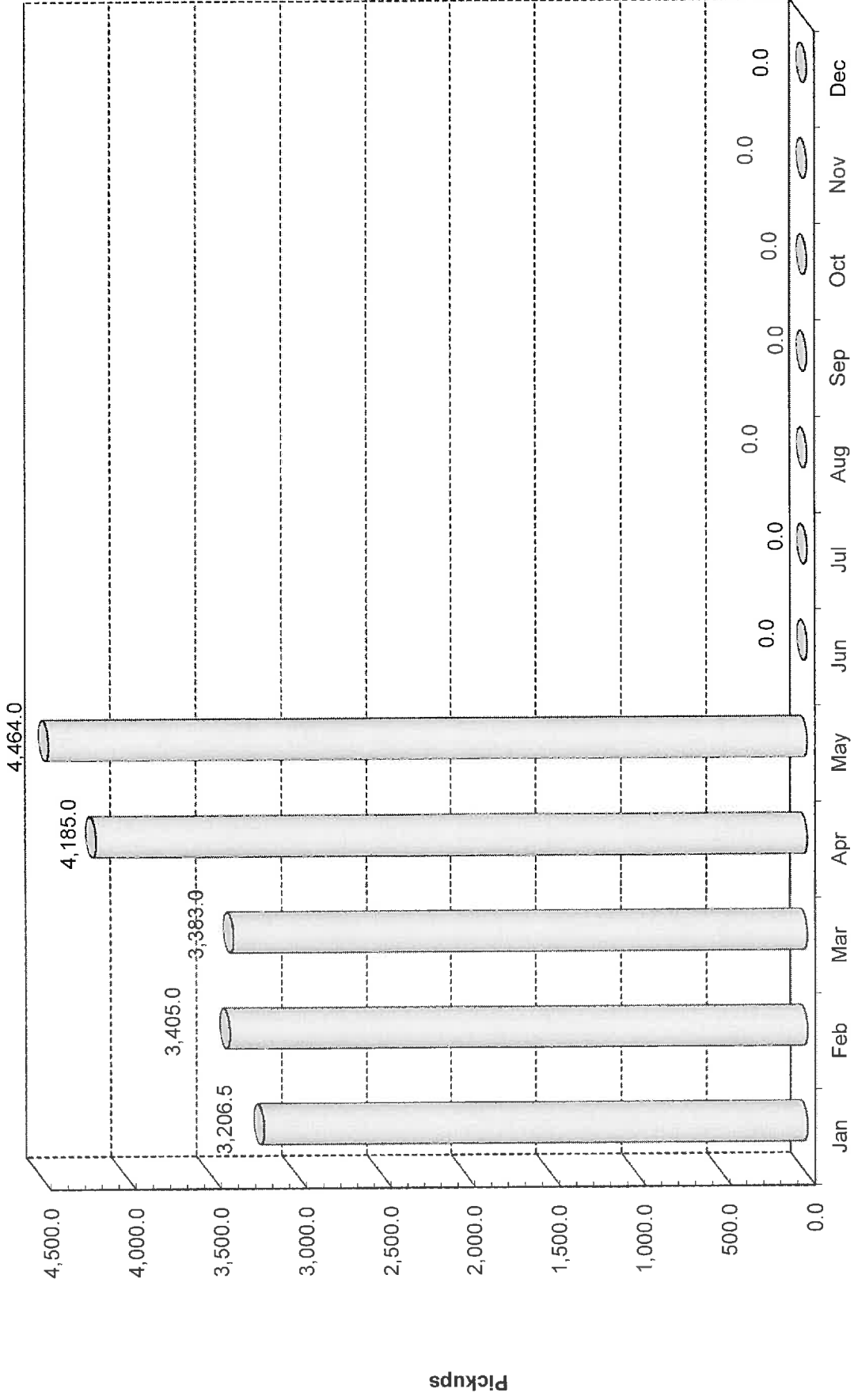
MAY	11.35	11.11	11.67	13.55	0.00	0.00	0.00	0.00	0.00	0.00
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NOTE: The Wastewater Treatment Concurrency Threshold report will be available following receipt of monthly results at the conclusion of the current testing cycle.

Water use MTD - accounts with sewersourceDate
5 / 2018

Sewer Class	Accounts	Gallons
Location: IN		
Mfr In/low Strength	54	502,020
Com In/lo Strength	161	934,960
Dot In/lo Strength	3	55,570
Ind In/hi Strength	1	29,240
Ind In/lo Strength	10	68,430
Lmf In/lo Strength	1	3,640
Com In/hi Strength	41	633,840
Mfr In/lo Strength	54	539,930
Mhp In/lo Strength	2	404,100
PA In/hi Strength	3	74,880
PA In/lo Strength	43	397,920
Sfr IN Town	603	1,763,271
Low Rate / IN Town	6	9,380
	<hr/> 982	<hr/> 5,417,181
Location: Out		
UW Out/hi Strength	1	229,100
Mfr Out/lo Strength	1	2,850
Sfr Out of Town	4	7,230
	<hr/> 6	<hr/> 239,180
TOTAL	988	5,656,361

Refuse Pickups by Month - 2018



Refuse Pickups - 2018 YTD

Account Type	SFR	Refuse Only	P.A	MFR	IND	COM	Other	Total
Jan	1,433.0	151.5	145.5	435.5	24.5	1,016.5		3,206.5
Feb	1,347.0	149.0	172.5	385.5	18.0	1,333.0		3,405.0
Mar	1,218.0	166.0	165.5	389.0	15.5	1,429.0		3,383.0
Apr	1,635.0	206.0	205.5	458.5	21.0	1,659.0		4,185.0
May	1,558.0	247.5	210.5	421.0	19.0	2,008.0		4,464.0
Jun								0.0
Jul								0.0
Aug								0.0
Sep								0.0
Oct								0.0
Nov								0.0
Dec								0.0
YTD	7,191.0	920.0	899.5	2,089.5	98.0	7,445.5	0.0	18,643.5

Refuse - pickups by ClasssourceDate
5 / 2018

Location	Class	Pickups
IN	Sfr	1,558.0
	RefuseOnly	247.5
	PA	210.5
	Mfr	414.0
	Ind	19.0
	Com	2,008.0
		<hr/> 4,457.0
Out	Sfr	0.0
	Mfr	7.0
		<hr/> 7.0
	TOTAL	4,464.0

Refuse - active accountssourceDate
5 / 2018

Location	Refuse Type	Accounts
IN		
	Small Dumpster	48
	PA	40
	Medium Dumpste	59
	Large Dumpster	70
	Compactors	3
	Cans Low Rate	6
	Cans	782
		<hr/>
		1,008
Out		
	Large Dumpster	1
	Cans	1
		<hr/>
		2
		<hr/>
	TOTAL	1,010

Recycle - pickups by ClasssourceDate
5 / 2018

Location	Class	Pickups
IN	Sfr	573
	RefuseOnly	19
	PA	0
	Mfr	42
	Ind	2
	Com	7
		<hr/> 643
Out	Sfr	0
	Mfr	0
		<hr/> 0
	TOTAL	643