

September 2016 Water Production & Consumption Data

- September 2016 monthly water production (288.48 AF) was lowest in at least 17 years.
- Monthly water production has increased slightly each month since February, with September water production unexpectedly higher than August water production. This increase through September is unlike most years, and is opposite an expected downward turn in monthly water production. September water production increased 2.46 Acre-Feet from August figures.
- The seasonal water production increase from February (Winter, lowest production in at least eight years) to this new September annual production peak is 78.57 Acre-Feet or 37.4 %.
- The monthly production savings achieved, vs 2013 figures, has remained above 30% for each month of the 2016 dry season so far (April-November).
- The September monthly water production savings achieved, compared to September of 2013, dropped a bit this year compared to 2015. The monthly savings was 31.4% this past month compared to 31.9% for the month of September 2015.
- From June 2015 through September 2016, the cumulative District water production savings is 32.6%. The 2,005 Acre-Feet of water saved in the past sixteen months is equal to the estimated annual water demand of 6,075+ single-family residential units! This saving is also 45% of the annual production in 2013.
- MCWD has easily exceeded the adjusted state mandated conservation standard of 11% production reduction in each of the past sixteen months.

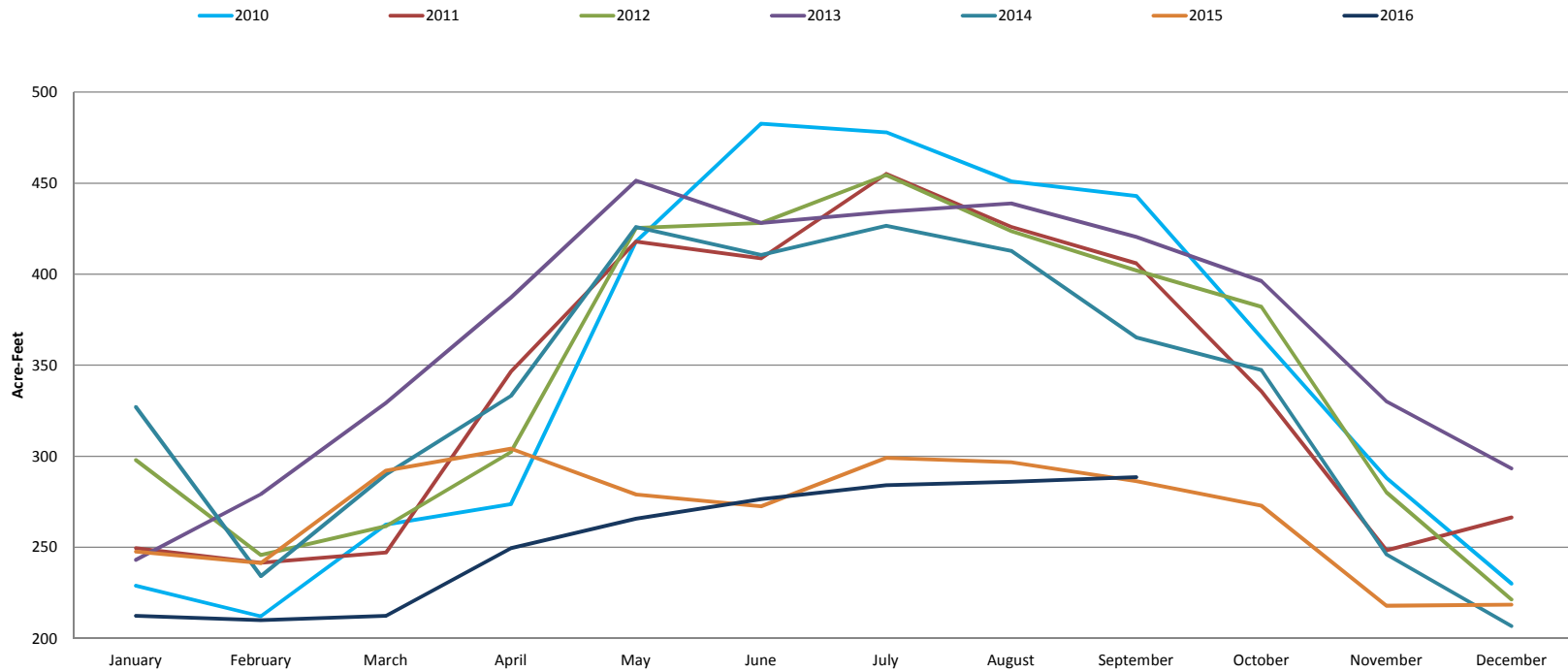
- While monthly water production was up slightly, estimated consumption was down 15.85 AF, or 5.9%, from August 2016. The difference between water production and metered consumption widened during the month, with increased water loss due to a broken hydrant at The Promontory where it is estimated that at least 3 AF of water was lost.
- MCWD gross monthly Gallons-Per-Capita-Day (GPCD, all water produced/population) water use increased during the past six months, reaching 92 GPCD in September. Gross September GPCD has dropped noticeably year-to-year since 2013. 2013 = 148 GPCD, 2014 = 127 GPCD, 2015 = 96 GPCD
- MCWD Residential Gallons-Per-Capita-Day (R-GPCD, % of production for residential water use/population) water use for September was 63 gallons, compared to 87 in 2013, 75 in 2014, and 67 in 2015.
- The estimate of unmetered usage for the Ord Military Housing remained the same while August to September metered water consumption was down 15.9 AF overall. Metered water consumption was down in all categories.
 - Temporary meter (Construction) usage - ↓ 9.0%
 - Single-family - ↓ 5.5%
 - Multi-family - ↓ 6.7%
 - Commercial - ↓ 2.3%
 - Landscape - ↓ 20%

Production by Month (acre-feet)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
January	250.00	339.10	228.90	249.50	297.99	243.06	327.14	247.66	212.37
February	234.00	218.80	212.10	241.52	245.82	279.08	234.16	241.34	209.91
March	295.00	277.40	262.40	247.05	261.68	329.29	290.01	292.16	212.37
April	355.00	349.20	273.70	346.48	302.29	387.29	333.28	304.13	249.50
May	461.00	379.30	418.00	417.98	425.35	451.43	425.96	278.96	265.77
June	415.00	385.50	482.70	408.78	428.11	428.11	410.62	272.52	276.51
July	415.00	415.80	478.00	455.12	454.50	434.25	426.58	299.06	284.18
August	410.00	395.30	451.00	425.96	423.48	438.85	412.77	296.76	286.02
September	395.00	371.00	443.00	406.01	402.02	420.44	365.20	286.33	288.48
October	369.00	326.80	365.00	335.59	382.08	396.27	347.40	272.82	
November	303.00	308.70	288.00	248.27	280.19	330.21	246.12	217.89	
December	267.00	270.70	230.00	266.38	221.32	293.26	206.69	218.41	
TOTAL	4169.00	4037.60	4132.80	4048.64	4124.83	4431.54	4025.93	3228.04	2285.11

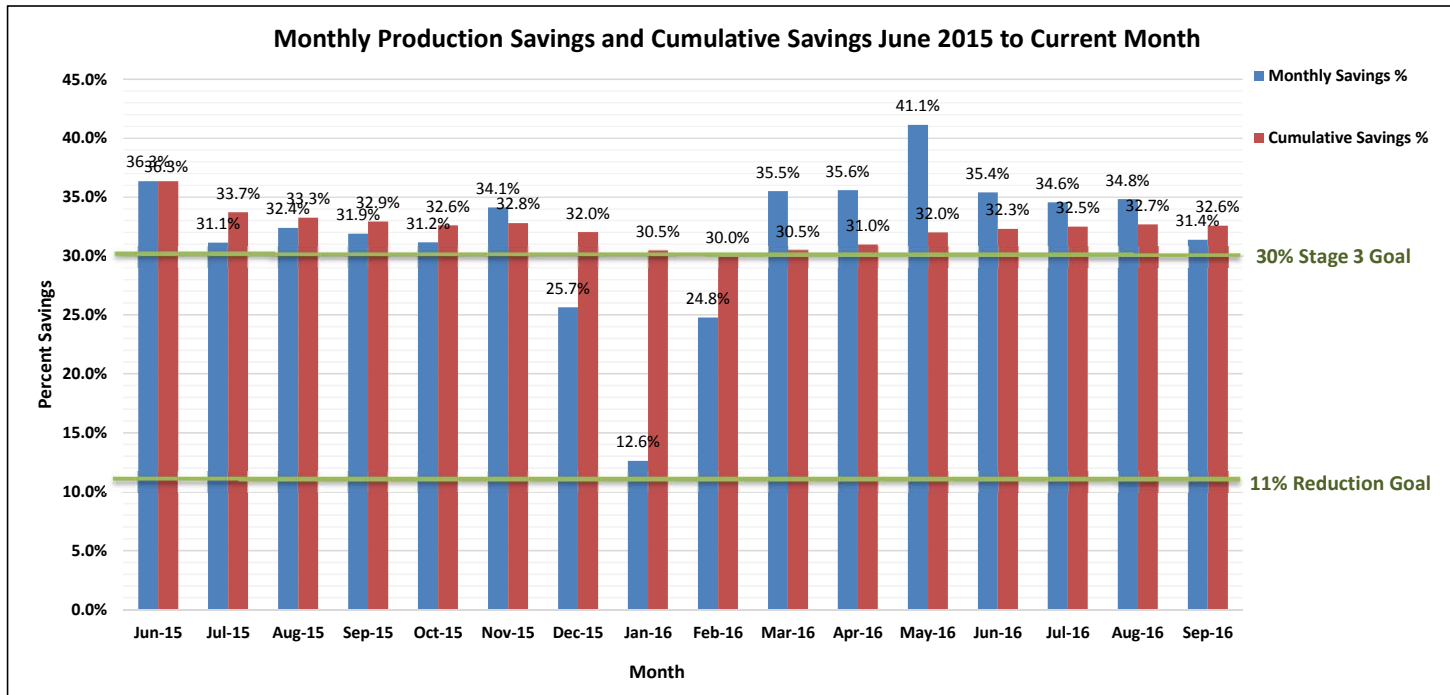
* Production data taken from Marina Coast Water District Well Production Summaries

2010-2016 Total Production by Month (Acre-Feet)



Monthly Production Savings and Cumulative Savings June 2015 to Current Month

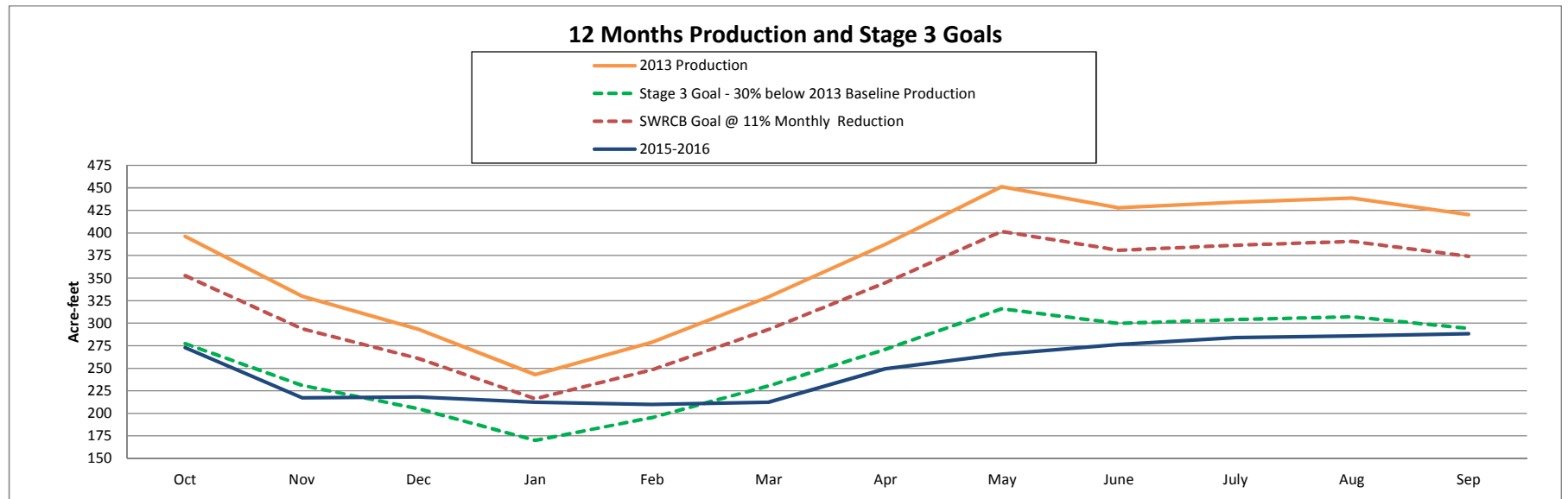
Current Month	Water Prod (AF) 2013	Recent Water Prod (AF)	Monthly Savings (AF)	Monthly Savings %	Cumulative Savings %
Jun-15	428.11	272.52	155.59	36.3%	36.3%
Jul-15	434.25	299.06	135.19	31.1%	33.7%
Aug-15	438.85	296.76	142.09	32.4%	33.3%
Sep-15	420.44	286.33	134.11	31.9%	32.9%
Oct-15	396.27	272.82	123.45	31.2%	32.6%
Nov-15	330.21	217.52	112.69	34.1%	32.8%
Dec-15	293.26	218.00	75.26	25.7%	32.0%
Jan-16	243.06	212.37	30.69	12.6%	30.5%
Feb-16	279.08	209.91	69.17	24.8%	30.0%
Mar-16	329.29	212.37	116.92	35.5%	30.5%
Apr-16	387.29	249.50	137.79	35.6%	31.0%
May-16	451.43	265.77	185.66	41.1%	32.0%
Jun-16	428.11	276.51	151.60	35.4%	32.3%
Jul-16	434.25	284.18	150.07	34.6%	32.5%
Aug-16	438.85	286.02	152.83	34.8%	32.7%
Sep-16	420.44	288.48	131.96	31.4%	32.6%
Total	6153	4148	2005	-	32.6%



Monthly Production Reduction Performance

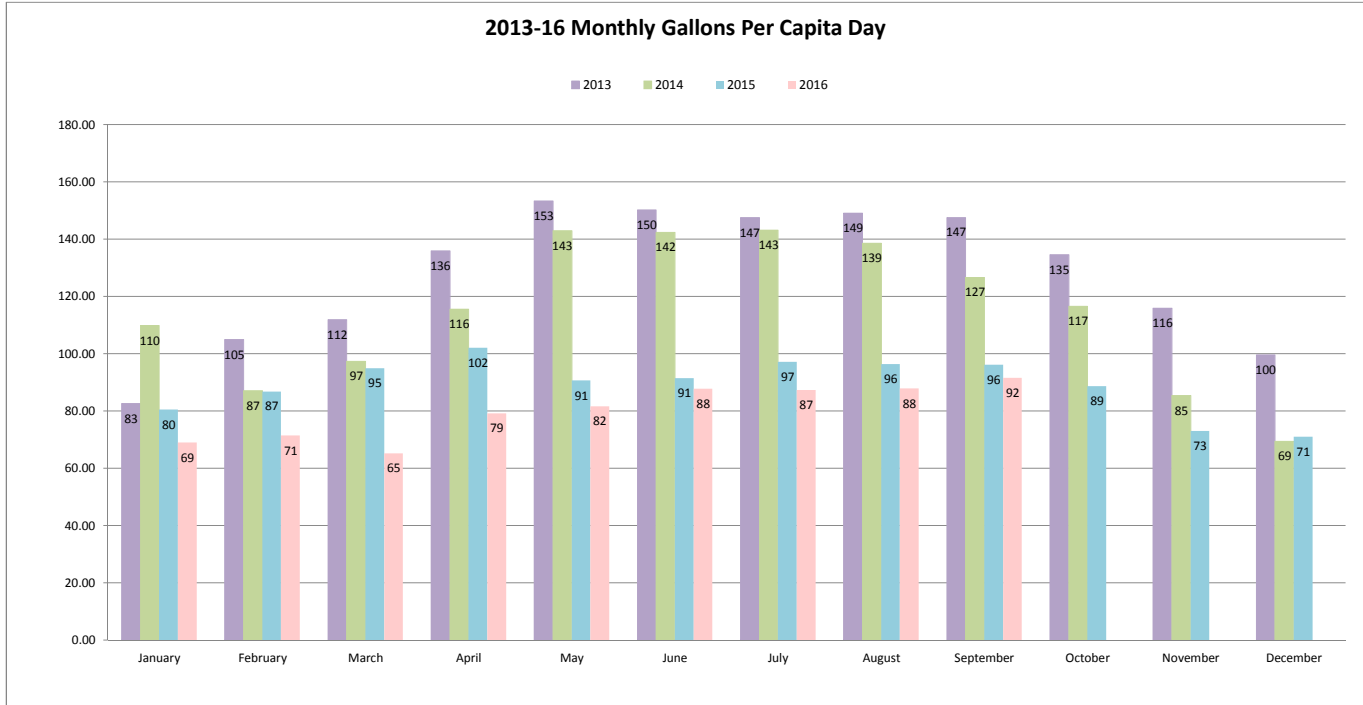
	Acre-Feet								
	*2013 Production	Stage Three 30% Savings Goal	SWRCB Goal @ 11% Monthly Reduction	*2014 Production	2014 Performance Beyond 30% Goal Below 30% Goal	*2015 Production	2015 Performance Beyond 30% Goal Below 30% Goal	*2016 Production	2016 Performance Beyond 30% Goal Below 30% Goal
Jan	243.06	170.14	216.32	327.14	157.00	247.66	77.52	212.37	42.23
Feb	279.08	195.36	248.38	234.16	38.80	241.34	45.98	209.91	14.55
Mar	329.29	230.50	293.07	290.01	59.51	292.16	61.66	212.37	-18.13
Apr	387.29	271.10	344.69	333.28	62.18	304.13	33.03	249.5	-21.60
May	451.43	316.00	401.77	425.96	109.96	278.96	-37.04	265.77	-50.23
June	428.11	299.68	381.02	410.62	110.94	272.52	-27.16	276.51	-23.17
July	434.25	303.98	386.48	426.58	122.61	299.06	-4.91	284.18	-19.80
Aug	438.85	307.20	390.58	412.77	105.58	296.76	-10.44	286.02	-21.18
Sep	420.44	294.31	374.19	365.2	70.89	286.33	-7.98	288.48	-5.83
Oct	396.27	277.39	352.68	347.4	70.01	272.82	-4.57		
Nov	330.21	231.15	293.89	246.12	14.97	217.52	-13.63		
Dec	293.26	205.28	261.00	206.69	1.41	218.41	13.13		

* Production data taken from Marina Coast Water District Well Production Summaries



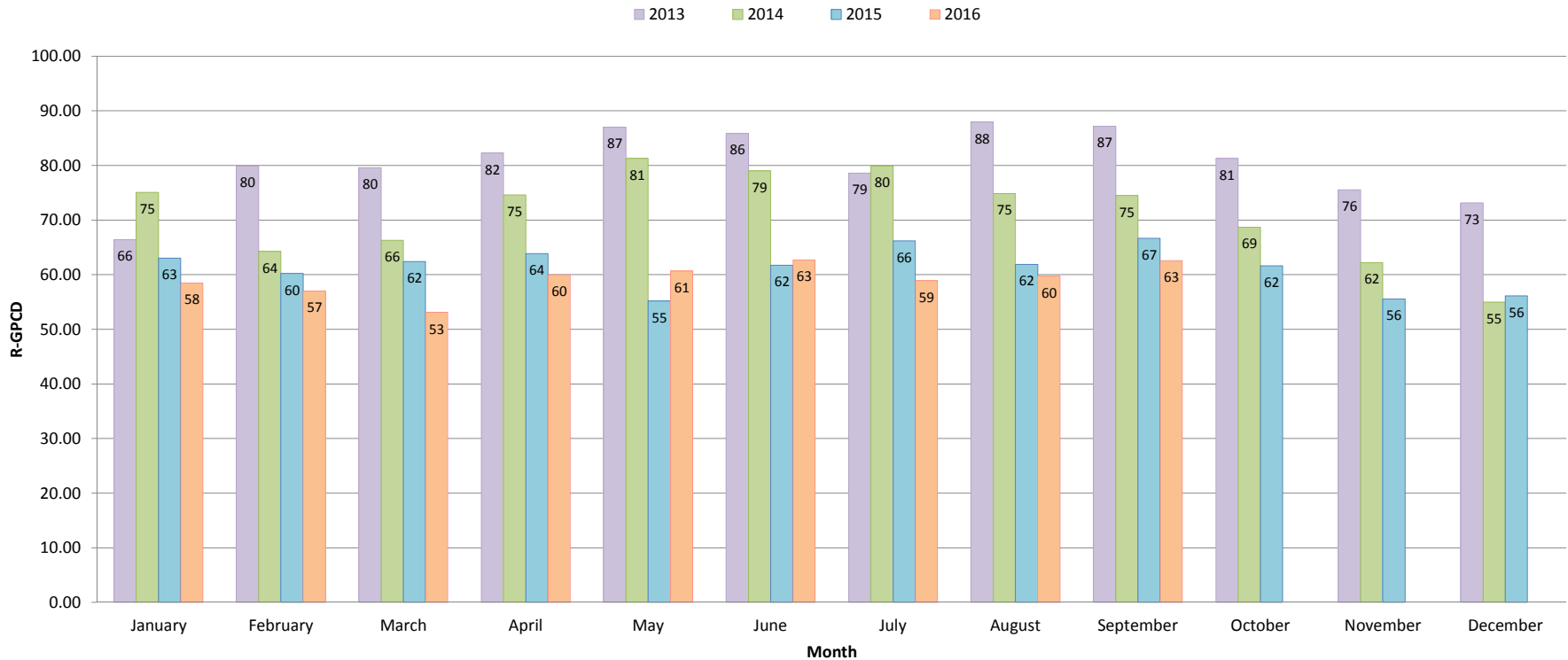
2016					
# of days		Production (AF)	Production (Gallons)	Population	GPCD
31	January	212.37	69,200,976.87	32,375	68.95
28	February	209.91	68,399,383.41	34,235	71.35
31	March	212.37	69,200,976.87	34,235	65.20
30	April	249.5	81,299,824.50	34,235	79.16
31	May	265.77	86,601,420.27	34,235	81.60
30	June	276.51	90,101,060.01	34,235	87.73
31	July	284.18	92,600,337.18	34,235	87.25
31	August	286.02	93,199,903.02	34,235	87.82
30	September	288.48	94,001,496.48	34,235	91.53
31	October			34,235	
30	November			34,235	
31	December			34,235	
365	2016 Year	2285.11	744,605,378.61	34,516	68.50

District Baseline and GPCD Targets (Gross Production)		
Description	Year	Amount (gpcd)
Baseline GPCD	2008	133
Maximum Allowable Target	2020	126
Interim GPCD Target	2015	125
2020 GPCD Target	2020	117
2014 GPCD	2014	115
2015 GPCD	2015	89



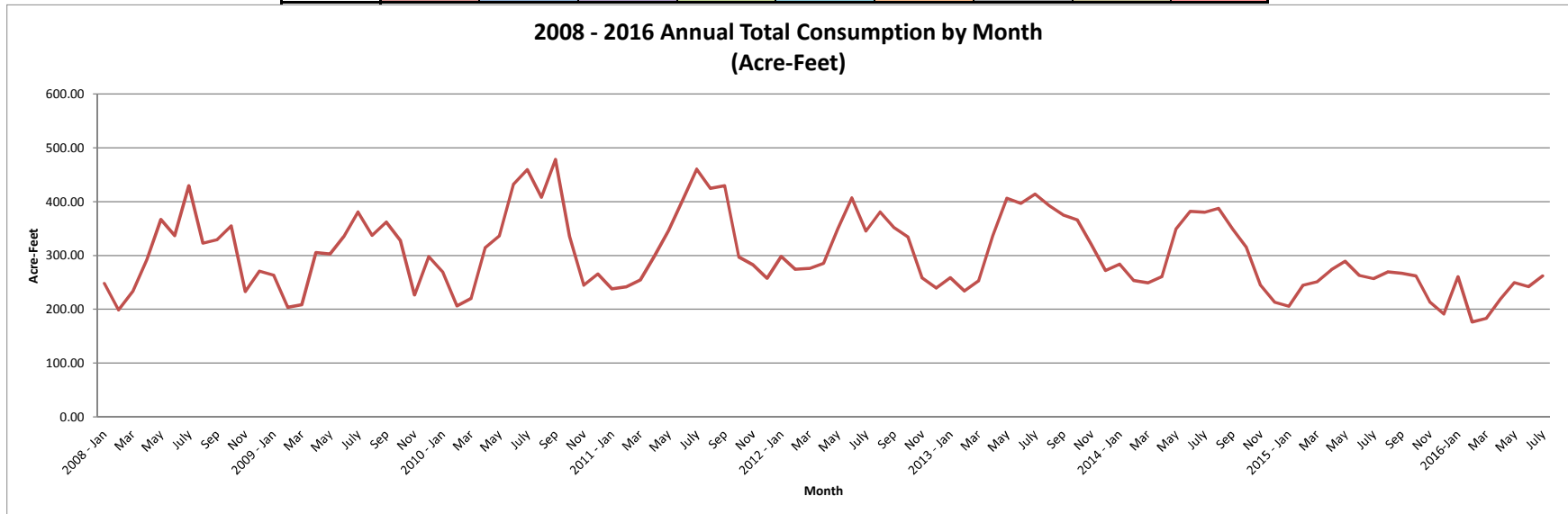
	2013				2014				2015				2016			
	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD
January	79,201,344.06	80.49%	30,961	66.42	106,598,896.14	68.37%	31,325	75.05	80,700,258.66	78.39%	32,375	63.03	69,200,976.87	84.83%	32,375	58.49
February	90,938,497.08	76.16%	30,961	79.89	76,301,270.16	73.90%	31,325	64.29	78,640,880.34	69.40%	32,375	60.21	68,399,383.41	79.89%	34,235	57.01
March	107,299,475.79	71.17%	30,961	79.57	94,500,048.51	68.11%	31,325	66.28	95,200,628.16	65.81%	32,375	62.42	69,200,976.87	81.41%	34,235	53.08
April	126,198,833.79	60.57%	30,961	82.30	108,599,621.28	64.56%	31,325	74.61	99,101,064.63	62.57%	32,375	63.84	81,299,824.50	75.76%	34,235	59.97
May	147,098,916.93	56.76%	30,961	86.99	138,799,491.96	56.86%	31,325	81.27	90,899,394.96	60.93%	32,375	55.18	86,601,420.27	74.36%	34,235	60.68
June	139,500,071.61	57.18%	30,961	85.87	133,800,937.62	55.50%	31,325	79.02	88,800,914.52	67.54%	32,375	61.75	90,101,060.01	71.49%	34,235	62.71
July	141,500,796.75	53.32%	30,961	78.61	139,001,519.58	55.82%	31,325	79.90	97,449,000.06	68.15%	32,375	66.17	92,600,337.18	67.48%	34,235	58.88
August	142,999,711.35	59.01%	30,961	87.92	134,501,517.27	54.06%	31,325	74.87	96,699,542.76	64.22%	32,375	61.87	93,199,903.02	67.99%	34,235	59.71
September	137,000,794.44	59.09%	30,961	87.16	119,000,785.20	58.85%	31,325	74.52	93,300,916.83	69.37%	32,375	66.64	93,845,088.00	68.50%	34,235	62.59
October	129,124,975.77	60.44%	30,961	81.32	113,200,637.40	58.92%	31,325	68.69	88,898,669.82	69.57%	32,375	61.62			34,235	
November	107,599,258.71	65.20%	30,961	75.54	80,198,448.12	72.89%	31,325	62.20	70,999,674.39	75.97%	32,375	55.53			34,235	
December	95,559,064.26	73.47%	30,961	73.15	67,350,143.19	79.24%	31,325	54.96	71,169,116.91	79.15%	32,375	56.13			34,235	

2013-2016 Residential Gallons-per-Capita-Day



Annual Total Estimated Consumption by Month (Acre-Feet)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
January	247.67	263.53	268.67	237.52	297.91	258.43	283.58	205.30	259.91
February	198.52	203.24	205.89	241.48	274.32	233.82	253.28	244.47	176.27
March	232.79	208.08	220.13	254.20	275.92	252.54	248.67	250.91	182.79
April	292.16	305.05	314.48	298.94	285.28	336.00	260.80	273.19	218.77
May	366.50	302.44	336.18	346.00	349.02	406.24	348.87	288.98	249.56
June	336.62	335.01	432.19	402.48	406.93	396.64	381.85	263.02	242.17
July	429.20	380.63	459.50	460.59	345.06	413.76	380.15	256.84	261.83
August	322.95	337.48	407.87	424.59	380.61	392.26	387.74	269.34	268.94
September	329.35	361.62	478.48	429.27	351.55	375.33	348.87	266.76	253.09
October	355.18	327.83	335.42	297.07	334.00	366.01	314.94	261.86	
November	232.73	226.62	244.55	282.55	257.89	319.91	244.46	213.44	
December	270.89	297.50	265.62	257.27	239.06	272.18	213.03	190.92	
Total	3614.56	3549.05	3968.99	3931.94	3797.56	4023.12	3666.23	2973.68	



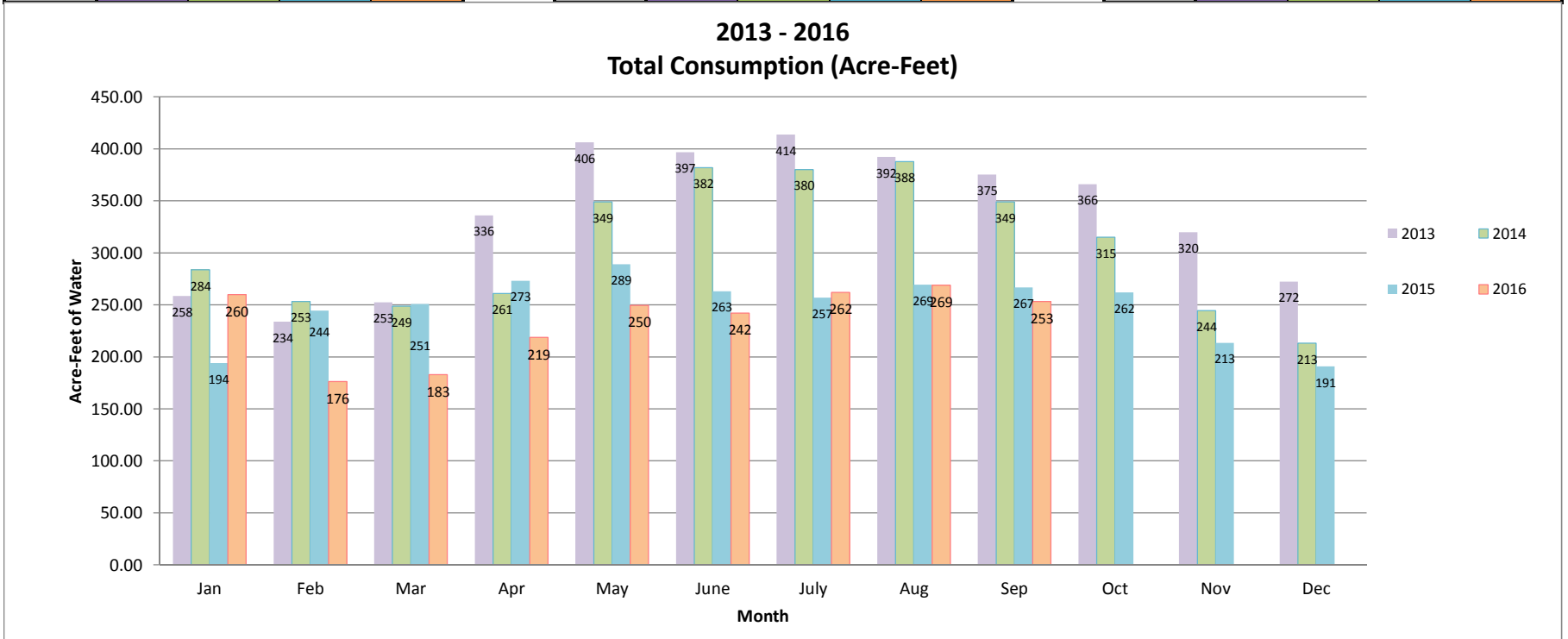
**Metered + Unmetered Consumption (Acre-Feet)
2013 - 2016**

Metered Consumption calculated from spreadsheet 2013-16 ConsumptionByCategory by adding all metered categories together per month (single family metered consumption+ commercial/institutional metered consumption +multi-family metered consumption +landscape irrigation metered consumption)

Metered Consumption				
	2013	2014	2015	2016
Jan	227.01	260.74	172.66	239.08
Feb	202.40	230.44	223.34	155.44
Mar	221.12	225.83	229.77	160.41
Apr	304.58	237.96	252.06	196.38
May	374.82	326.03	267.95	227.18
June	365.23	359.01	242.02	219.79
July	382.35	357.31	235.70	243.28
Aug	360.84	364.90	248.20	250.39
Sep	343.91	326.03	245.63	234.54
Oct	334.59	292.10	240.72	
Nov	288.49	221.62	192.62	
Dec	240.77	190.19	170.09	
TOTAL	3646.12	3392.15	2720.77	

Estimated Unmetered Consumption				
	2013	2014	2015	2016
Jan	31.42	22.84	21.28	20.83
Feb	31.42	22.84	21.14	20.83
Mar	31.42	22.84	21.14	22.38
Apr	31.42	22.84	21.14	22.38
May	31.42	22.84	21.02	22.38
June	31.42	22.84	21.00	22.38
July	31.42	22.84	21.14	18.55
Aug	31.42	22.84	21.14	18.55
Sep	31.42	22.84	21.14	18.55
Oct	31.42	22.84	21.14	
Nov	31.42	22.84	20.83	
Dec	31.42	22.84	20.83	
TOTAL	377.00	274.12	252.91	

Total Consumption				
	2013	2014	2015	2016
Jan	258.43	283.58	193.94	259.91
Feb	233.82	253.28	244.47	176.27
Mar	252.54	248.67	250.91	182.79
Apr	336.00	260.80	273.19	218.76
May	406.24	348.87	288.98	249.56
June	396.64	381.85	263.02	242.17
July	413.76	380.15	256.84	261.83
Aug	392.26	387.74	269.34	268.94
Sep	375.33	348.87	266.76	253.09
Oct	366.01	314.94	261.86	
Nov	319.91	244.46	213.44	
Dec	272.18	213.03	190.92	
TOTAL	4023.12	3666.2693	2973.68	



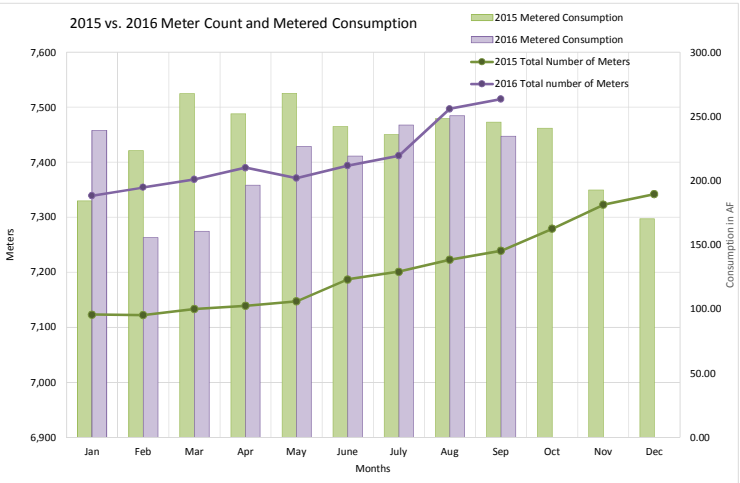
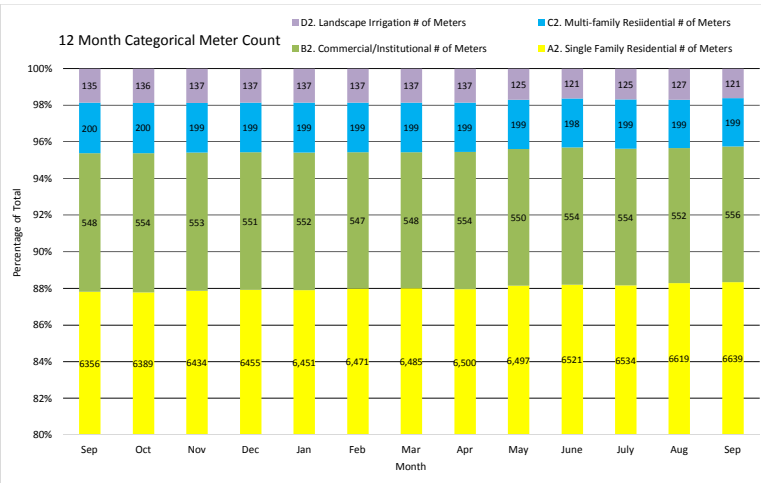
2016

2016 Metered Consumption (Units) and # of Meters

This data is from Summary by Rate Code														
Marina & Ord Combined														
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	
A1. Single Family Residential Metered Consumption	58,143	36,984	38,935	44,055	53,484	48,374	50,364	51,753	48,932	0	0	0	431,024	989
A2. Single Family Residential # of Meters	6,451	6,471	6,485	6,500	6,497	6,521	6,534	6,619	6,639	0	0	0		
B1. Commercial/Institutional Metered Consumption	15,706	14,398	13,305	20,044	22,340	22,422	29,247	26,920	26,305	0	0	0	190,687	438
B2. Commercial/Institutional # of Meters	552	547	548	554	550	554	554	552	556	0	0	0		
C1. Multi-family Residential Metered Consumption	28,828	15,291	16,143	18,395	17,607	17,290	18,526	19,826	18,506	0	0	0	170,412	391
C2. Multi-family Residential # of Meters	199	199	199	199	199	199	199	199	199	0	0	0		
D1. Landscape Irrigation Metered Consumption	1,475	1,042	1,493	3,057	5,288	7,397	7,845	10,579	8,428	0	0	0	46,604	107
D2. Landscape Irrigation # of Meters	137	137	137	137	125	121	125	127	121	0	0	0		
Total Meters	7,339	7,354	7,369	7,390	7,371	7,394	7,412	7,497	7,515	0	0	0		
Total Metered Consumption (AF)	239.08	155.44	160.40	196.38	226.61	219.18	243.28	250.39	234.54	0.00	0.00	0.00	1,925	2016 TOTAL METERED CONSUMPTION

Marina														
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	
A1. Single Family Residential Metered Consumption	35,950	18,675	20,527	23,967	22,851	26,810	29,117	26,930	26,332				231,159	
A2. Single Family Residential # of Meters	3,459	3,460	3,461	3,463	3,457	3,461	3,459	3,463	3,465					
B1. Commercial/Institutional Metered Consumption	10,393	5,942	6,258	8,694	8,460	10,823	10,997	12,025	11,543				85,135	
B2. Commercial/Institutional # of Meters	248	248	249	249	249	249	250	251	252					
C1. Multi-family Residential Metered Consumption	24,255	12,474	13,325	15,377	14,039	14,672	15,798	16,137	14,972				141,049	
C2. Multi-family Residential # of Meters	173	173	173	173	173	172	173	173	173					
D1. Landscape Irrigation Metered Consumption	183	138	198	252	512	752	643	686	762				4,126	
D2. Landscape Irrigation # of Meters	36	36	36	36	36	31	35	36	29					
Total Meters	3,916	3,917	3,919	3,921	3,915	3,913	3,917	3,923	3,919	0	0	0		
Total Metered Consumption (AF)	162.48	85.46	92.53	110.85	105.28	121.79	129.82	128.04	123.06	0.00	0.00	0.00	1,059	2016 TOTAL MARINA METERED CONSUMPTION

Ord														
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	
A1. Single Family Residential Metered Consumption	22,193	18,309	18,408	20,088	30,633	21,564	21,247	24,823	22,600				199,865	
A2. Single Family Residential # of Meters	2,992	3,011	3,024	3,037	3,040	3,060	3,075	3,156	3,174					
B1. Commercial/Institutional Metered Consumption	5,313	8,456	7,047	11,350	13,880	11,599	18,250	14,895	14,762				105,552	
B2. Commercial/Institutional # of Meters	304	299	299	305	301	305	304	301	304					
C1. Multi-family Residential Metered Consumption	4,573	2,817	2,818	3,018	3,568	2,618	2,728	3,689	3,534				29,363	
C2. Multi-family Residential # of Meters	26	26	26	26	26	26	26	26	26					
D1. Landscape Irrigation Metered Consumption	1,292	904	1,295	2,805	4,776	6,645	7,202	9,893	7,666				42,478	
D2. Landscape Irrigation # of Meters	101	101	101	101	89	90	90	91	92					
Total Meters	3,423	3,437	3,450	3,469	3,456	3,481	3,495	3,574	3,596	0	0	0		
Total Metered Consumption (AF)	76.60	69.98	67.87	85.53	121.33	97.39	113.46	122.35	111.48	0.00	0.00	0.00	866	2016 TOTAL ORD METERED CONSUMPTION

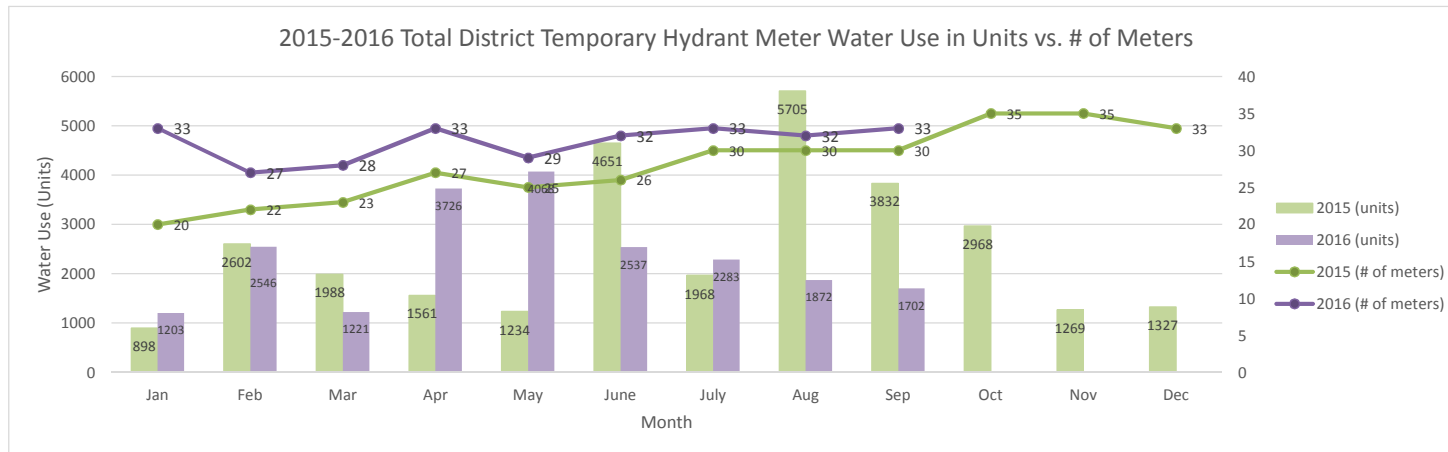


Temporary Hydrant Meters Water Use (Units)

Marina												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2014 (units)	2	0	1	0	14	0	0	0	5	3	1	0
2015 (units)	0	0	0	0	0	17	0	0	0	0	0	0
2016 (units)	0	0	0	1	2	0	0	2	0			
2015 (# of meters)	0	0	0	0	0	1	0	0	0	0	0	0
2016 (# of meters)	1	0	1	1	1	1	1	1	1			

Ord												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2014 (units)	1075	1124	2316	1655	2563	3142	4421	2732	1767	3207	960	362
2015 (units)	898	2602	1988	1561	1234	4634	1968	5705	3832	2968	1269	1327
2016 (units)	1203	2546	1221	3725	4066	2537	2283	1870	1702			
2015 (# of meters)	20	22	23	27	25	25	30	30	30	35	35	33
2016 (# of meters)	32	27	27	32	28	31	32	31	32			

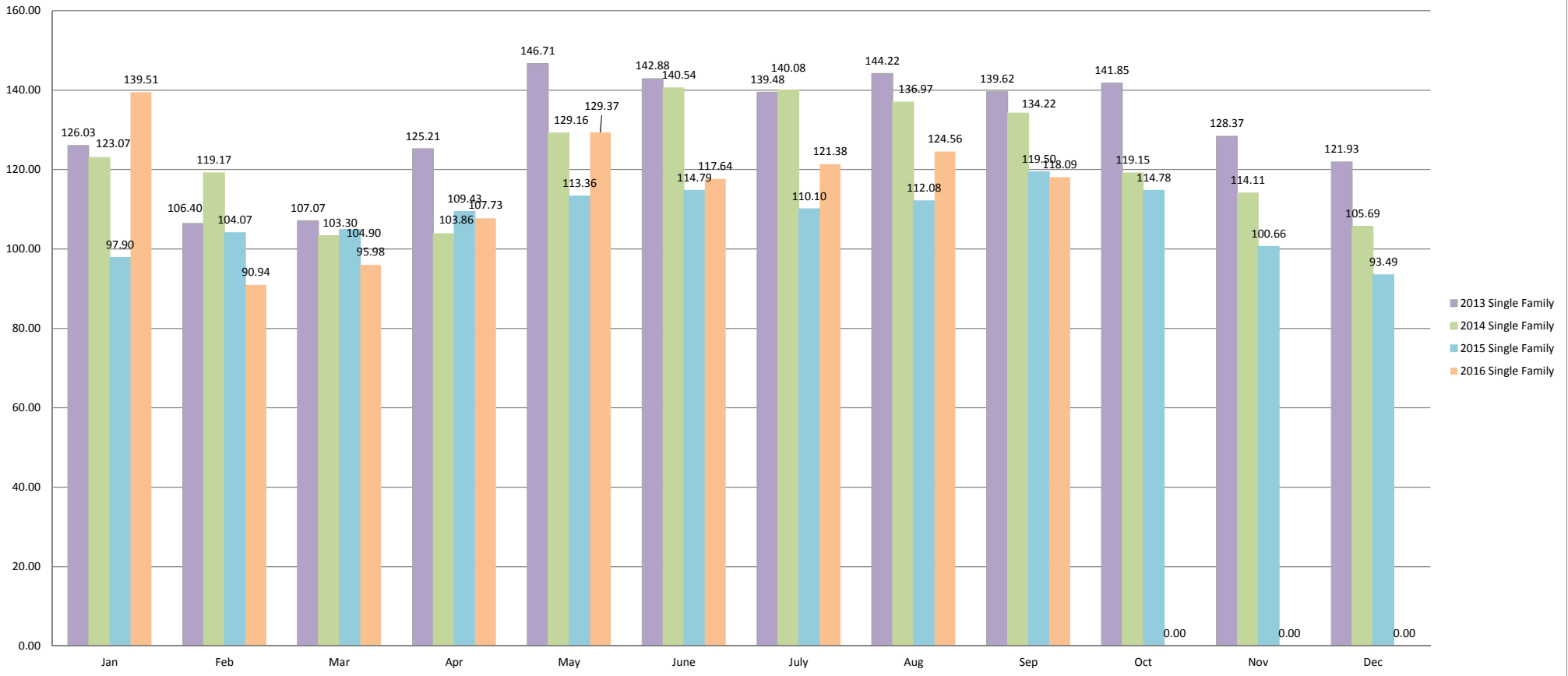
TOTAL												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2014 (units)	1077	1124	2317	1655	2577	3142	4421	2732	1772	3210	961	362
2015 (units)	898	2602	1988	1561	1234	4651	1968	5705	3832	2968	1269	1327
2016 (units)	1203	2546	1221	3726	4068	2537	2283	1872	1702			
2015 (# of meters)	20	22	23	27	25	26	30	30	30	35	35	33
2016 (# of meters)	33	27	28	33	29	32	33	32	33			



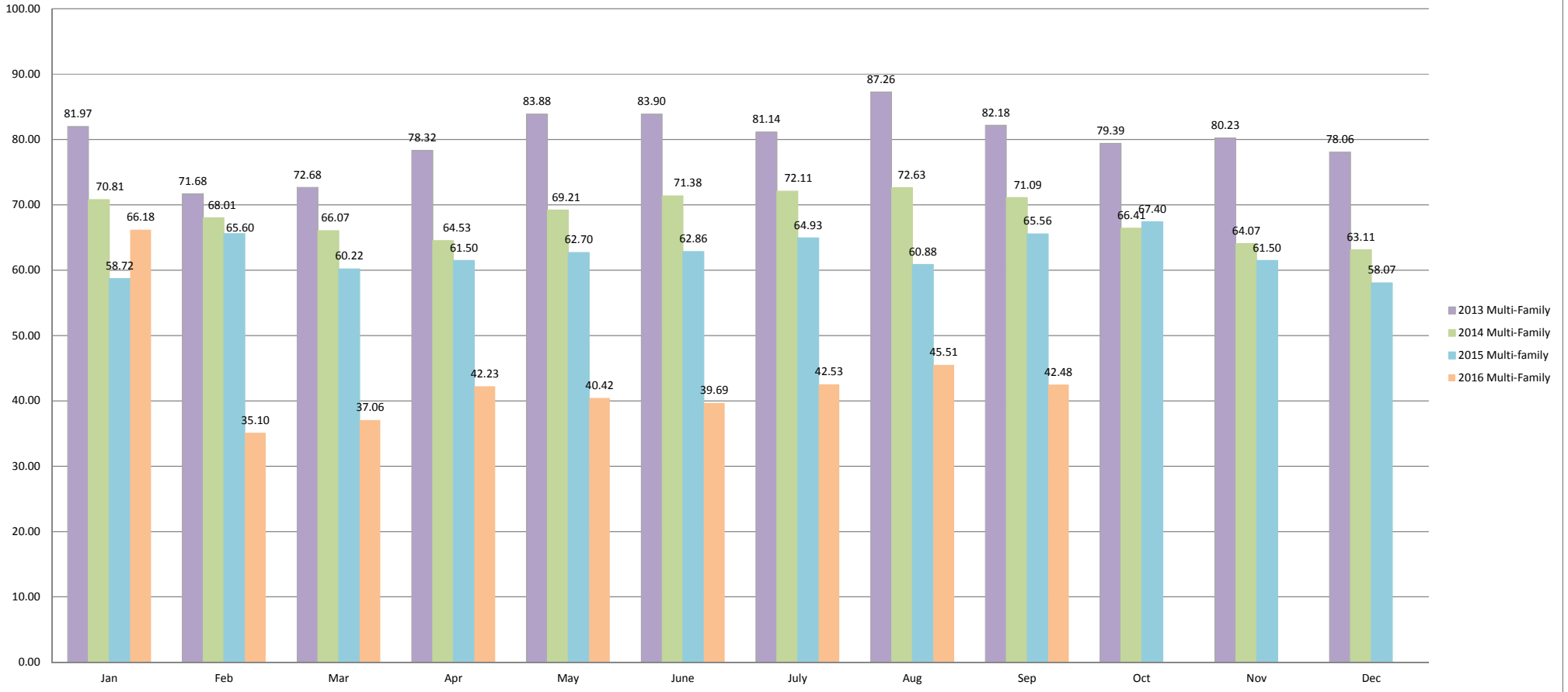
Temporary Meter Water Use: Percentage of Total Production

Past 12 Months												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	August	September
Production (HCF)	118849	94919	95146	92515	91443	92515	108690	115777	115777	123797	124599	125671
Temporary Hydrant Use (HCF)	5705	3832	2968	1203	2546	1221	3726	4068	2537	2283	1872	1702
Percentage	4.8%	4.0%	3.1%	1.3%	2.8%	1.3%	3.4%	3.5%	2.2%	1.8%	1.5%	1.4%

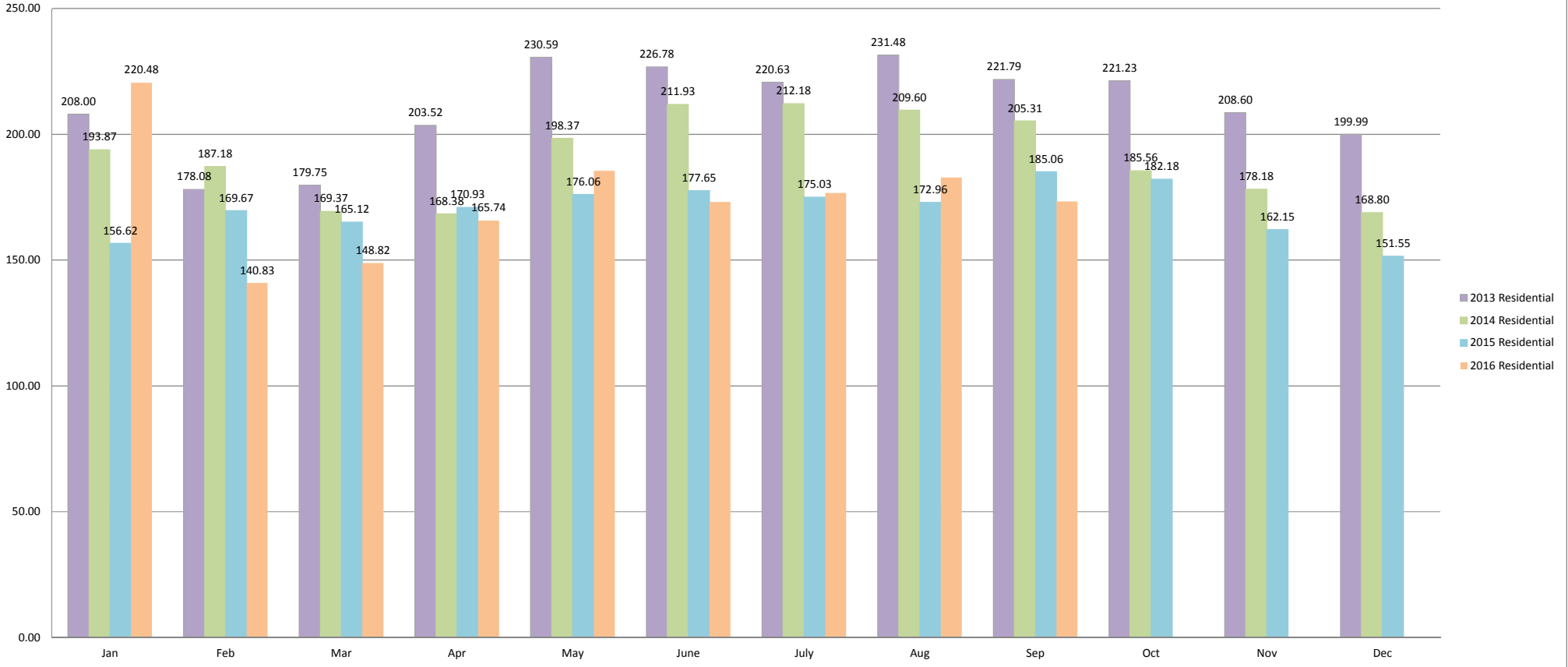
2013-2016 Single Family Consumption by Month (Acre-Feet)



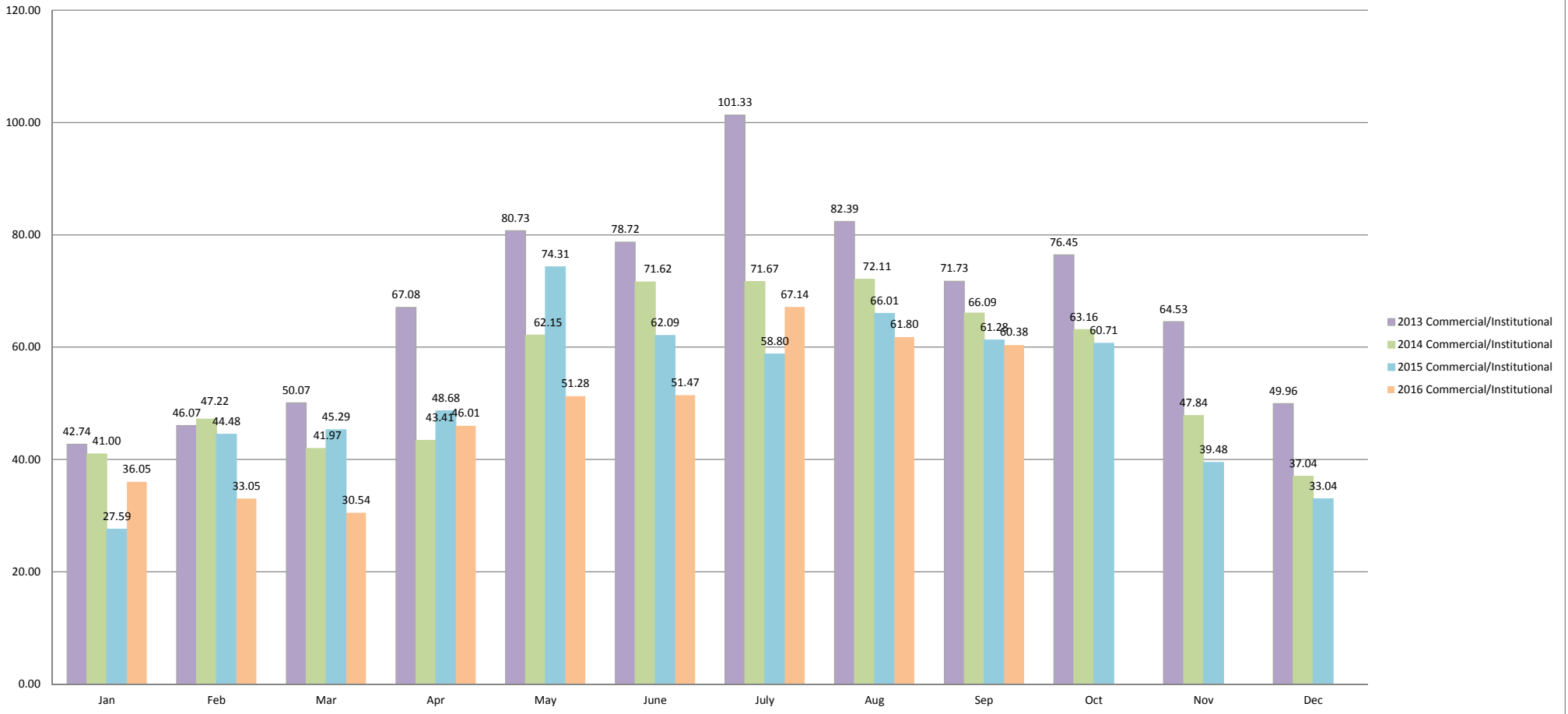
2013-2016 Multi-Family Total Consumption by Month (Acre-Feet)



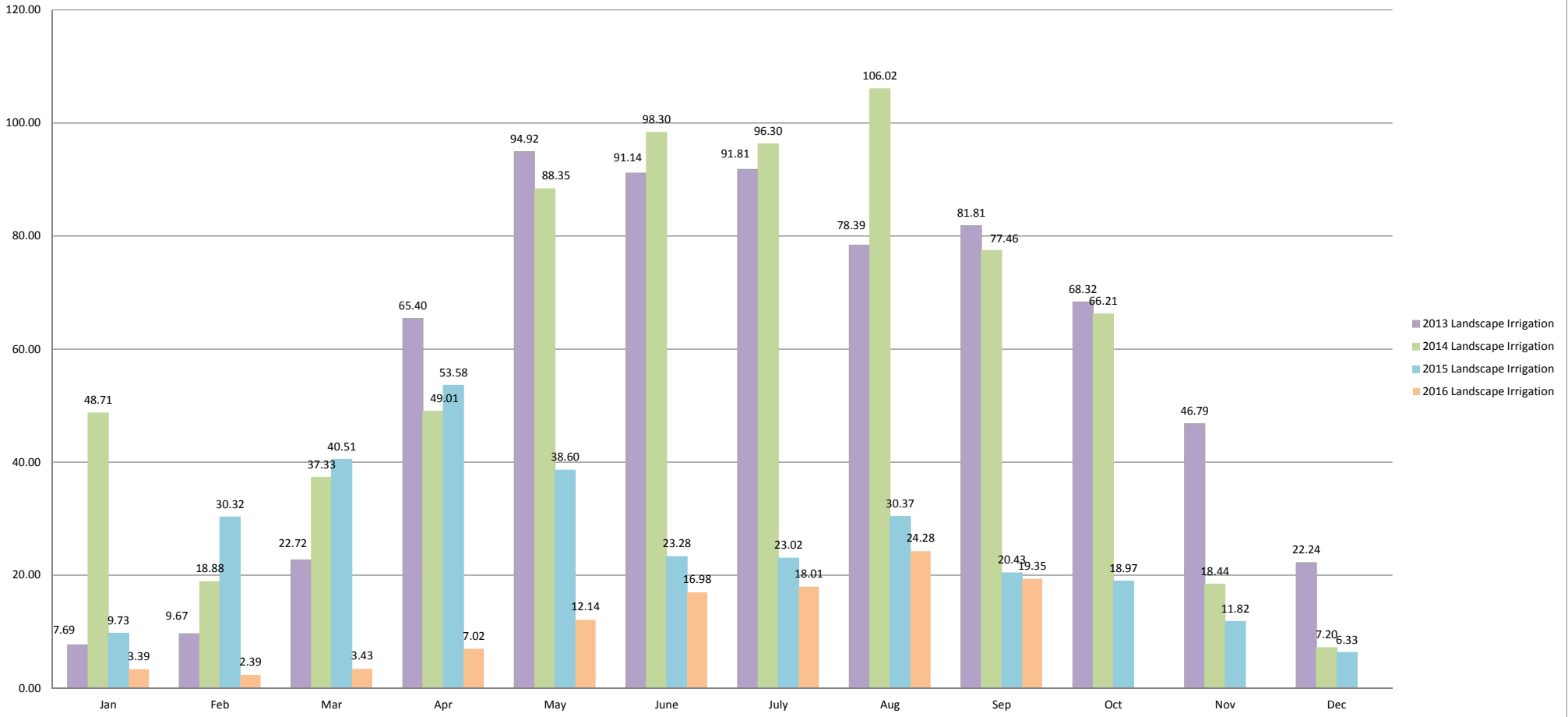
2013-2016 Residential Total Consumption by Month (Acre-Feet) (Single-Family and Multi-family Combined)



2013-2016 Commercial/Institutional Consumption by Month (Acre-Feet)



2013-2016 Landscape Irrigation Consumption by Month (Acre-Feet)



2013-2016 Total Consumption by Month (Acre-Feet)

