

## **November 2016 Water Production & Consumption Summary Report**

The seasonal downward trend in production continues. Achieving lower lows in production, and consumption, will be difficult with development moving forward.

The November production reduction was not as low as last year. Perhaps that is because of the dry weather in November? Maybe new development? Metered Single Family usage in the Ord Community was up 7.18 AF or 13.8% over last month.

The monthly production savings achieved, vs 2013 figures, did not remain above 30% for the month, but the cumulative savings since June of 2015 did stay above 30%.

MCWD has easily exceeded the adjusted state mandated conservation standard of 11% production reduction in each of the past eighteen months.

Residential gallons-per-capita-day is low, only 57.72. This should drop lower next month.

Twenty-seven new meters were issued in the last month, and seventy-six meters in the last two months. Nineteen new residential meters, five commercial meters, and three irrigation meters were issued in the last month. Twenty-six of the twenty-seven new meters were installed in the Ord service area.

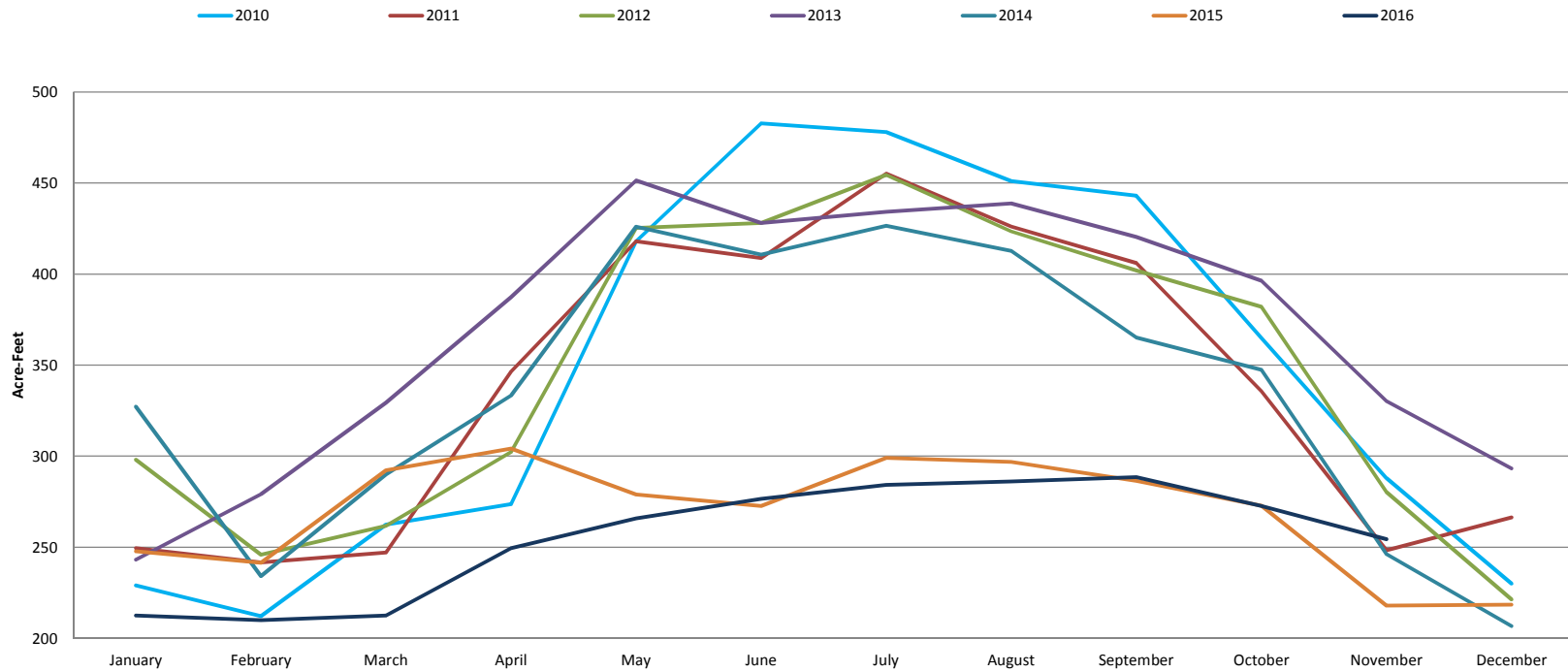
Metered Marina water use was down in all categories for the last month. Ord water use was up 2.5% from the previous month.

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	272.52
November	303.00	308.70	288.00	248.27	280.19	330.21	246.12	217.89	254.41
December	267.00	270.70	230.00	266.38	221.32	293.26	206.69	218.41	
<b>TOTAL</b>	<b>4169.00</b>	<b>4037.60</b>	<b>4132.80</b>	<b>4048.64</b>	<b>4124.83</b>	<b>4431.54</b>	<b>4025.93</b>	<b>3228.04</b>	<b>2812.04</b>

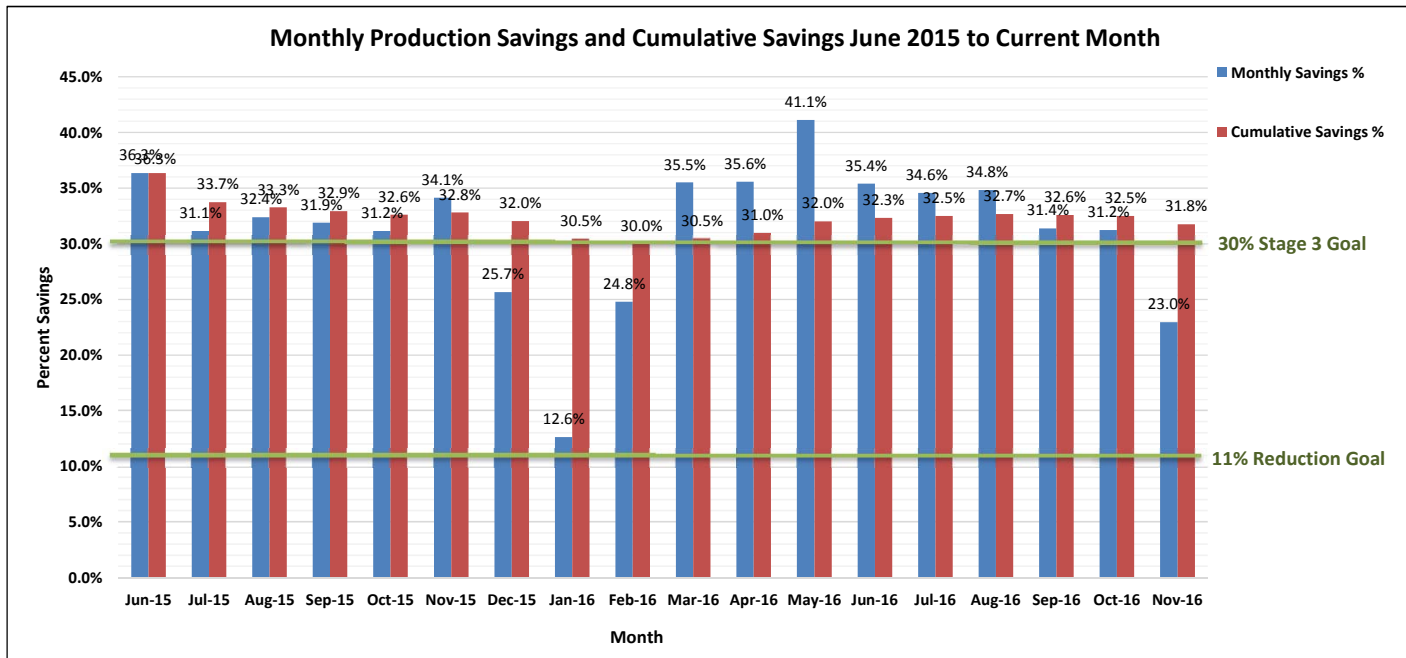
\* Production data taken from Marina Coast Water District Well Production Summaries

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



Monthly Production Savings and Cumulative Savings June 2015 to Current Month

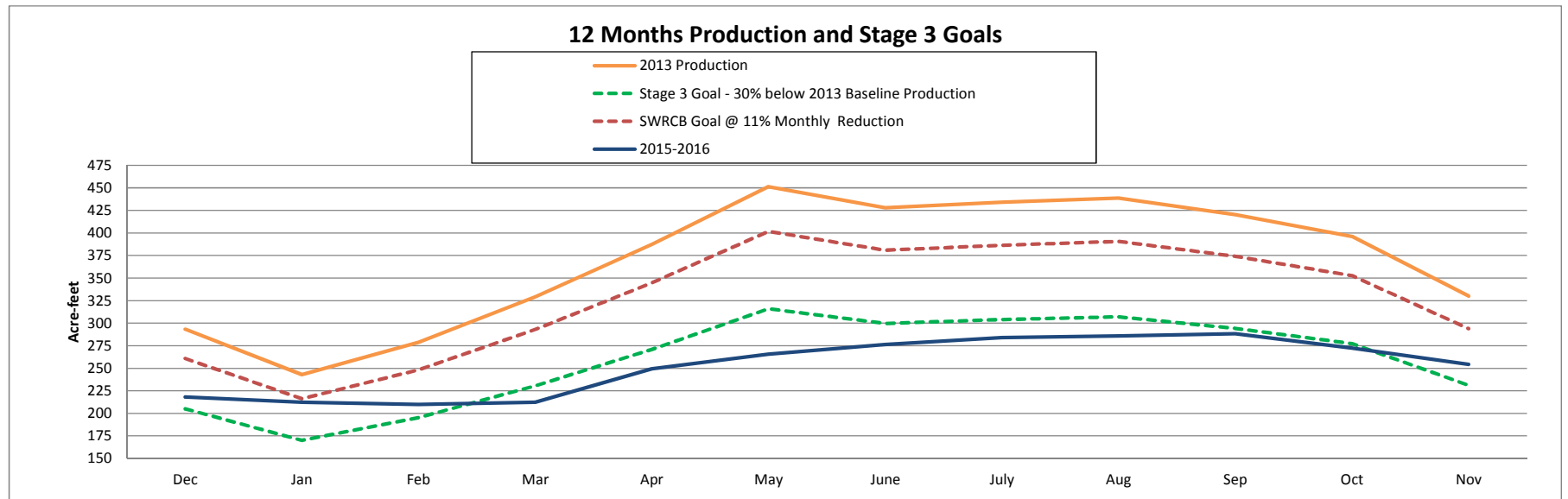
Current Month	Water Prod (AF) 2013	Recent Water Prod (AF)	Monthly Savings (AF)	Monthly Savings %	Cumulative Savings %
Jun-15	428.11	272.52	155.59	36.3%	36.3%
Jul-15	434.25	299.06	135.19	31.1%	33.7%
Aug-15	438.85	296.76	142.09	32.4%	33.3%
Sep-15	420.44	286.33	134.11	31.9%	32.9%
Oct-15	396.27	272.82	123.45	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%
Oct-16	396.27	272.52	123.75	31.2%	32.5%
Nov-16	330.21	254.41	75.80	23.0%	31.8%
<b>Total</b>	<b>6549</b>	<b>4421</b>	<b>2129</b>	<b>-</b>	<b>32.6%</b>



### Monthly Production Reduction Performance

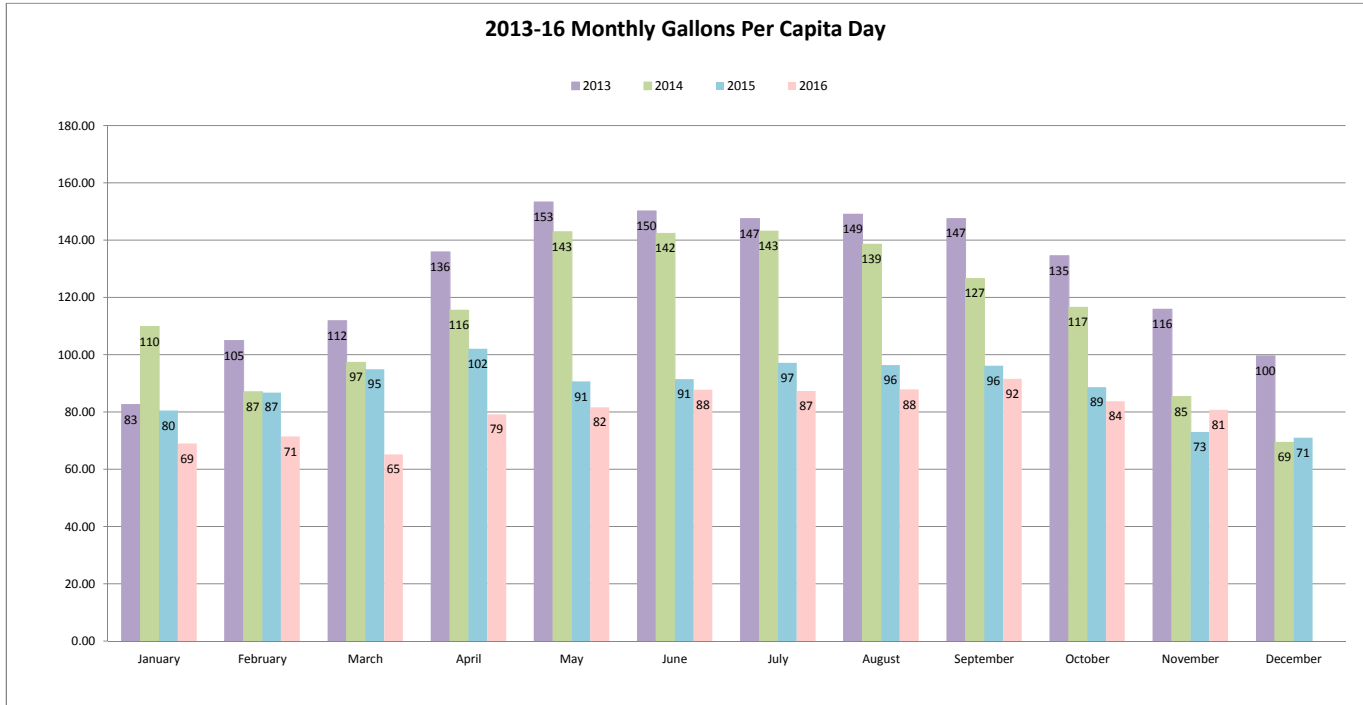
	Acre-Feet								
	*2013 Production	Stage Three 30% Savings Goal	SWRCB Goal @ 11% Monthly Reduction	*2014 Production	2014 Performance Beyond 30% Goal Below 30% Goal	*2015 Production	2015 Performance Beyond 30% Goal Below 30% Goal	*2016 Production	2016 Performance Beyond 30% Goal Below 30% Goal
Jan	243.06	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	272.52	-4.87
Nov	330.21	231.15	293.89	246.12	14.97	217.52	-13.63	254.41	23.26
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



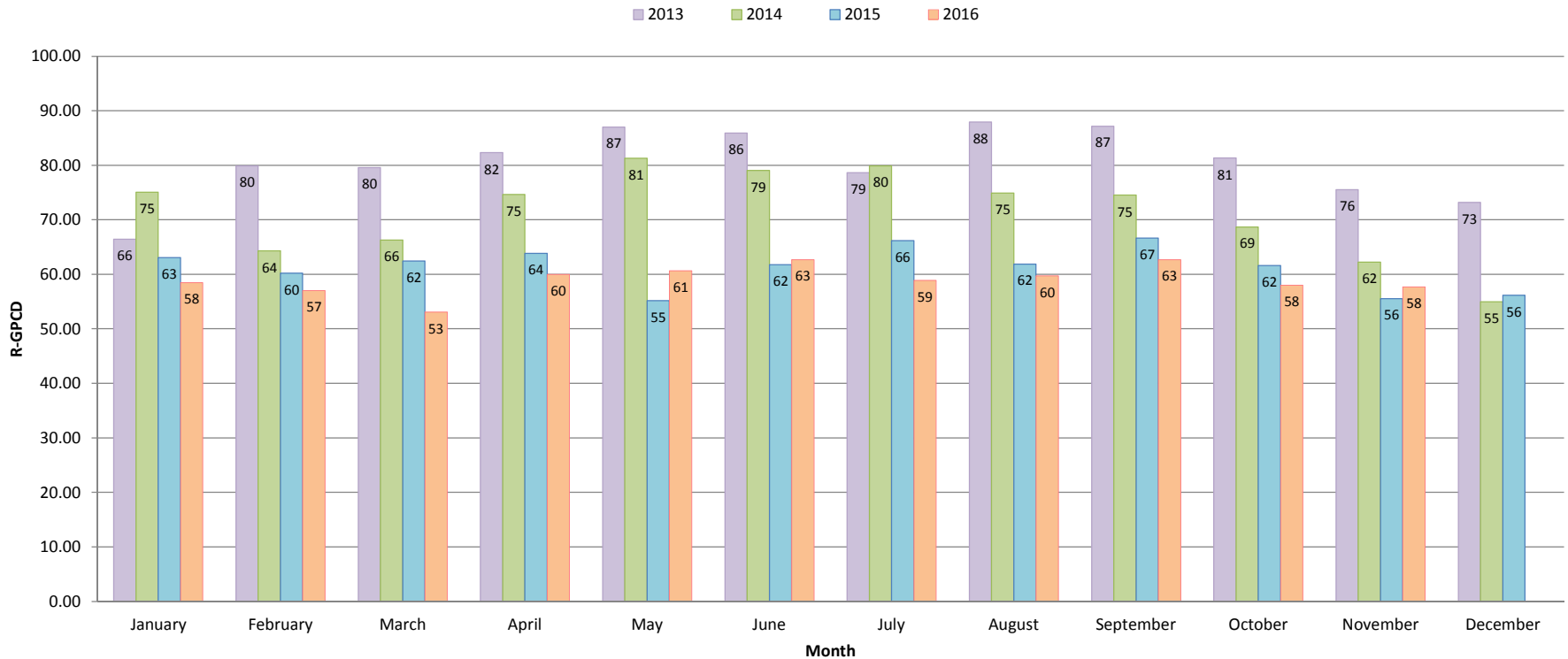
2016					
# of days		Production (AF)	Production (Gallons)	Population	GPCD
31	January	212.37	69,200,976.87	32,375	68.95
28	February	209.91	68,399,383.41	34,235	71.35
31	March	212.37	69,200,976.87	34,235	65.20
30	April	249.5	81,299,824.50	34,235	79.16
31	May	265.77	86,601,420.27	34,235	81.60
30	June	276.51	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	272.52	88,800,914.52	34,235	83.67
30	November	254.41	82,899,752.91	34,235	80.72
31	December			34,235	
365	2016 Year	2812.04	916,306,046.04	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



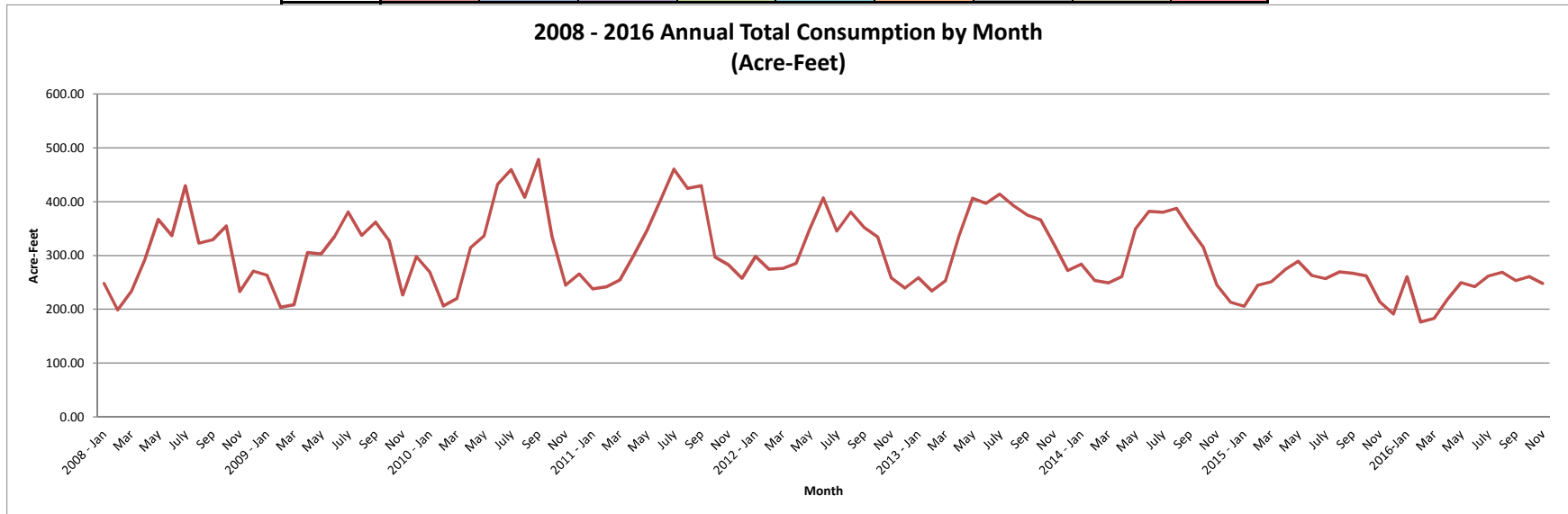
	2013				2014				2015				2016			
	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD	Production (Gallons)	% Residential Use	Population	R-GPCD
January	79,201,344.06	80.49%	30,961	66.42	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	94,001,496.48	68.50%	34,235	62.69
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	88,800,914.52	69.33%	34,235	58.01
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	82,899,752.91	71.50%	34,235	57.72
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
<b>January</b>	247.67	263.53	268.67	237.52	297.91	258.43	283.58	205.30	259.91
<b>February</b>	198.52	203.24	205.89	241.48	274.32	233.82	253.28	244.47	176.27
<b>March</b>	232.79	208.08	220.13	254.20	275.92	252.54	248.67	250.91	182.79
<b>April</b>	292.16	305.05	314.48	298.94	285.28	336.00	260.80	273.19	218.77
<b>May</b>	366.50	302.44	336.18	346.00	349.02	406.24	348.87	288.98	249.56
<b>June</b>	336.62	335.01	432.19	402.48	406.93	396.64	381.85	263.02	242.17
<b>July</b>	429.20	380.63	459.50	460.59	345.06	413.76	380.15	256.84	261.83
<b>August</b>	322.95	337.48	407.87	424.59	380.61	392.26	387.74	269.34	268.94
<b>September</b>	329.35	361.62	478.48	429.27	351.55	375.33	348.87	266.76	253.09
<b>October</b>	355.18	327.83	335.42	297.07	334.00	366.01	314.94	261.86	260.78
<b>November</b>	232.73	226.62	244.55	282.55	257.89	319.91	244.46	213.44	247.60
<b>December</b>	270.89	297.50	265.62	257.27	239.06	272.18	213.03	190.92	
<b>Total</b>	<b>3614.56</b>	<b>3549.05</b>	<b>3968.99</b>	<b>3931.94</b>	<b>3797.56</b>	<b>4023.12</b>	<b>3666.23</b>	<b>2973.68</b>	



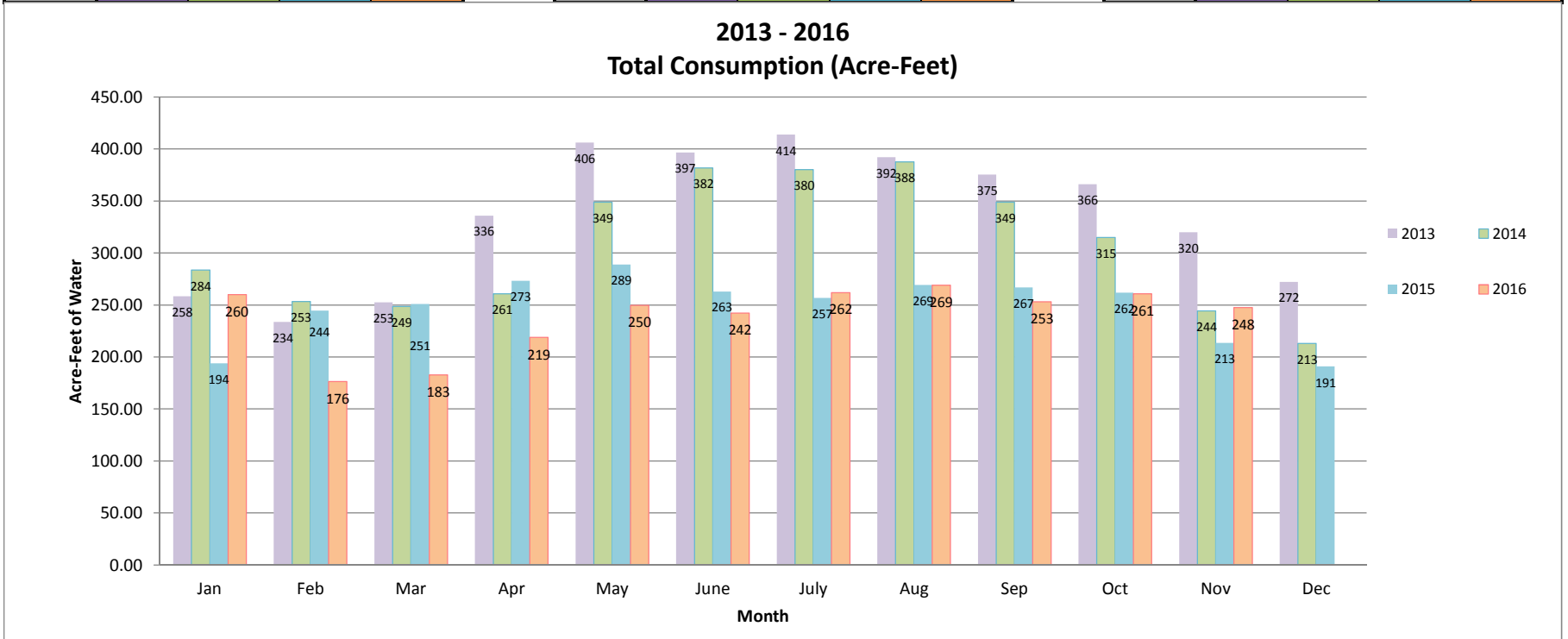
**Metered + Unmetered Consumption (Acre-Feet)  
2013 - 2016**

\*\*\*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	242.07
Nov	288.49	221.62	192.62	228.88
Dec	240.77	190.19	170.09	
<b>TOTAL</b>	<b>3646.12</b>	<b>3392.15</b>	<b>2720.77</b>	

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	18.71
Nov	31.42	22.84	20.83	18.71
Dec	31.42	22.84	20.83	
<b>TOTAL</b>	<b>377.00</b>	<b>274.12</b>	<b>252.91</b>	

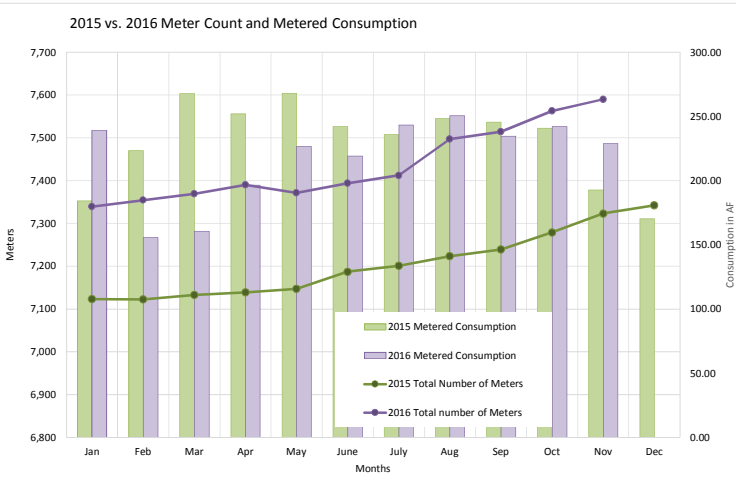
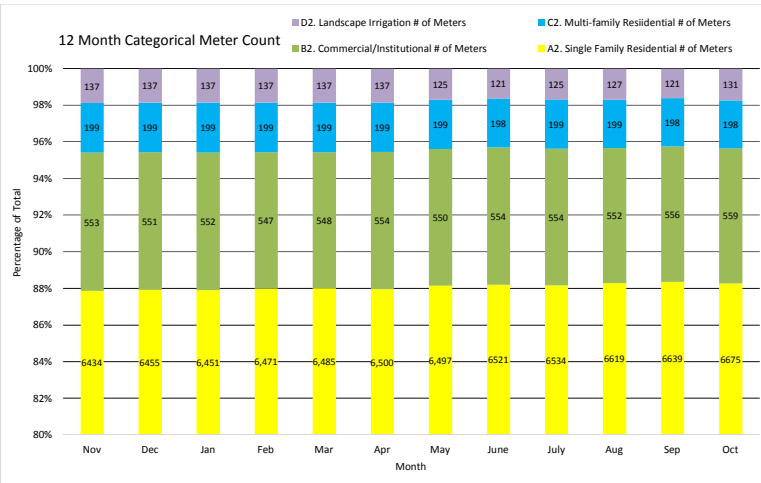
Total Consumption				
	2013	2014	2015	2016
Jan	258.43	283.58	193.94	259.91
Feb	233.82	253.28	244.47	176.27
Mar	252.54	248.67	250.91	182.79
Apr	336.00	260.80	273.19	218.76
May	406.24	348.87	288.98	249.56
June	396.64	381.85	263.02	242.17
July	413.76	380.15	256.84	261.83
Aug	392.26	387.74	269.34	268.94
Sep	375.33	348.87	266.76	253.09
Oct	366.01	314.94	261.86	260.78
Nov	319.91	244.46	213.44	247.59
Dec	272.18	213.03	190.92	
<b>TOTAL</b>	<b>4023.12</b>	<b>3666.2693</b>	<b>2973.68</b>	





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	50,623	49,807	0	531,454	1,220
A2. Single Family Residential # of Meters	6,451	6,471	6,485	6,500	6,497	6,521	6,534	6,619	6,639	6,675	6,694	0		
B1. Commercial/Institutional Metered Consumption	15,706	14,398	13,305	20,044	22,340	22,422	29,247	26,920	26,305	26,371	23,781	0	240,839	553
B2. Commercial/Institutional # of Meters	552	547	548	554	550	554	554	552	556	559	564	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	19,987	19,165	0	209,564	481
C2. Multi-family Residential # of Meters	199	199	199	199	199	198	198	199	198	198	198	0		
D1. Landscape Irrigation Metered Consumption	1,475	1,042	1,493	3,057	5,288	7,397	7,845	10,579	8,428	8,470	6,955	0	62,029	142
D2. Landscape Irrigation # of Meters	137	137	137	137	125	121	125	127	121	131	134	0		
<b>Total Meters</b>	<b>7,339</b>	<b>7,354</b>	<b>7,369</b>	<b>7,390</b>	<b>7,371</b>	<b>7,394</b>	<b>7,412</b>	<b>7,497</b>	<b>7,514</b>	<b>7,563</b>	<b>7,590</b>	<b>0</b>		
<b>Total Metered Consumption (AF)</b>	<b>239.08</b>	<b>155.44</b>	<b>160.40</b>	<b>196.38</b>	<b>226.61</b>	<b>219.18</b>	<b>243.28</b>	<b>250.39</b>	<b>234.54</b>	<b>242.07</b>	<b>228.88</b>	<b>0.00</b>	<b>2,396</b>	<b>2016 TOTAL METERED CONSUMPTION</b>
<b>Marina</b>														
	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	27,963	23,941	0	283,063	
A2. Single Family Residential # of Meters	3,459	3,460	3,461	3,463	3,457	3,461	3,459	3,463	3,465	3,463	3,463	0		
B1. Commercial/Institutional Metered Consumption	10,393	5,942	6,258	8,694	8,460	10,823	10,997	12,025	11,543	11,524	9,759	0	106,418	
B2. Commercial/Institutional # of Meters	248	248	249	249	249	249	250	251	252	251	252	0		
C1. Multi-family Residential Metered Consumption	24,255	12,474	13,325	15,377	14,039	14,672	15,798	16,137	14,972	16,300	15,458	0	172,807	
C2. Multi-family Residential # of Meters	173	173	173	173	173	172	173	173	173	173	173	0		
D1. Landscape Irrigation Metered Consumption	183	138	198	252	512	752	643	686	762	908	548	0	5,582	
D2. Landscape Irrigation # of Meters	36	36	36	36	36	31	35	36	29	36	36	0		
<b>Total Meters</b>	<b>3,916</b>	<b>3,917</b>	<b>3,919</b>	<b>3,921</b>	<b>3,915</b>	<b>3,913</b>	<b>3,917</b>	<b>3,923</b>	<b>3,919</b>	<b>3,923</b>	<b>3,924</b>	<b>0</b>		
<b>Total Metered Consumption (AF)</b>	<b>162.48</b>	<b>85.46</b>	<b>92.53</b>	<b>110.85</b>	<b>105.28</b>	<b>121.79</b>	<b>129.82</b>	<b>128.04</b>	<b>123.06</b>	<b>130.14</b>	<b>114.10</b>	<b>0.00</b>	<b>1,304</b>	<b>2016 TOTAL MARINA METERED CONSUMPTION</b>
<b>Ord</b>														
	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	22,660	25,866	0	248,391	
A2. Single Family Residential # of Meters	2,992	3,011	3,024	3,037	3,040	3,060	3,075	3,156	3,174	3,212	3,231	0		
B1. Commercial/Institutional Metered Consumption	5,313	8,456	7,047	11,350	13,880	11,599	18,250	14,895	14,762	14,847	14,022	0	134,421	
B2. Commercial/Institutional # of Meters	304	299	299	305	301	305	304	301	304	308	312	0		
C1. Multi-family Residential Metered Consumption	4,573	2,817	2,818	3,018	3,568	2,618	2,728	3,689	3,534	3,687	3,707	0	36,757	
C2. Multi-family Residential # of Meters	26	26	26	26	26	26	26	25	25	25	25	0		
D1. Landscape Irrigation Metered Consumption	1,292	904	1,295	2,805	4,776	6,645	7,202	9,893	7,666	7,562	6,407	0	56,447	
D2. Landscape Irrigation # of Meters	101	101	101	101	89	90	90	91	92	95	98	0		
<b>Total Meters</b>	<b>3,423</b>	<b>3,437</b>	<b>3,450</b>	<b>3,469</b>	<b>3,456</b>	<b>3,481</b>	<b>3,495</b>	<b>3,574</b>	<b>3,595</b>	<b>3,640</b>	<b>3,666</b>	<b>0</b>		
<b>Total Metered Consumption (AF)</b>	<b>76.60</b>	<b>69.98</b>	<b>67.87</b>	<b>85.53</b>	<b>121.33</b>	<b>97.39</b>	<b>113.46</b>	<b>122.35</b>	<b>111.48</b>	<b>111.92</b>	<b>114.78</b>	<b>0.00</b>	<b>1,093</b>	<b>2016 TOTAL ORD METERED CONSUMPTION</b>

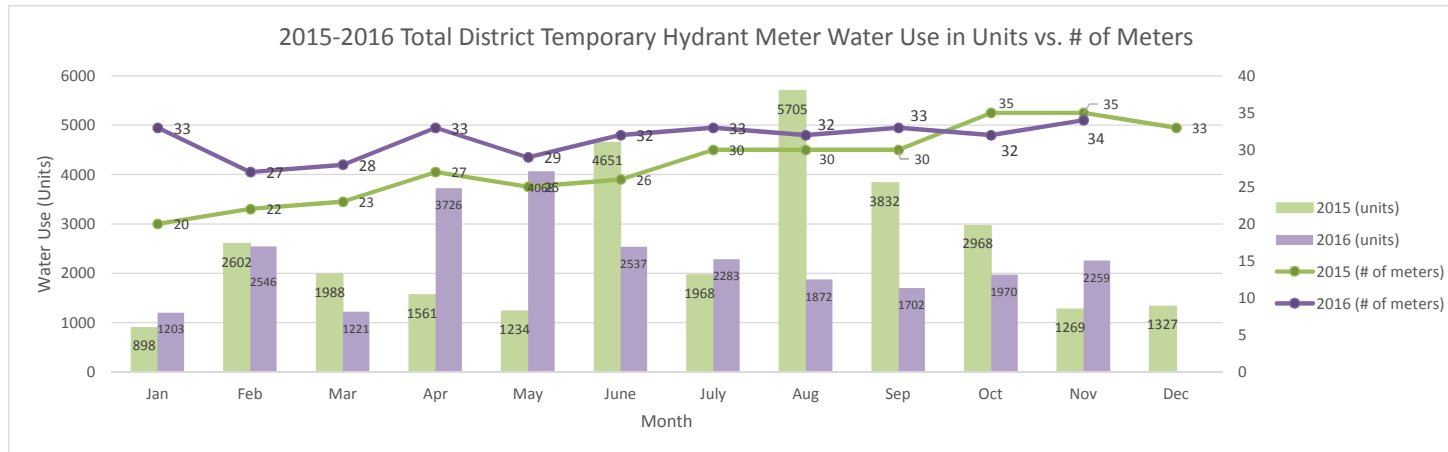


## Temporary Hydrant Meters Water Use (Units)

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	0	0	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	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	1970	2259	
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	31	33	

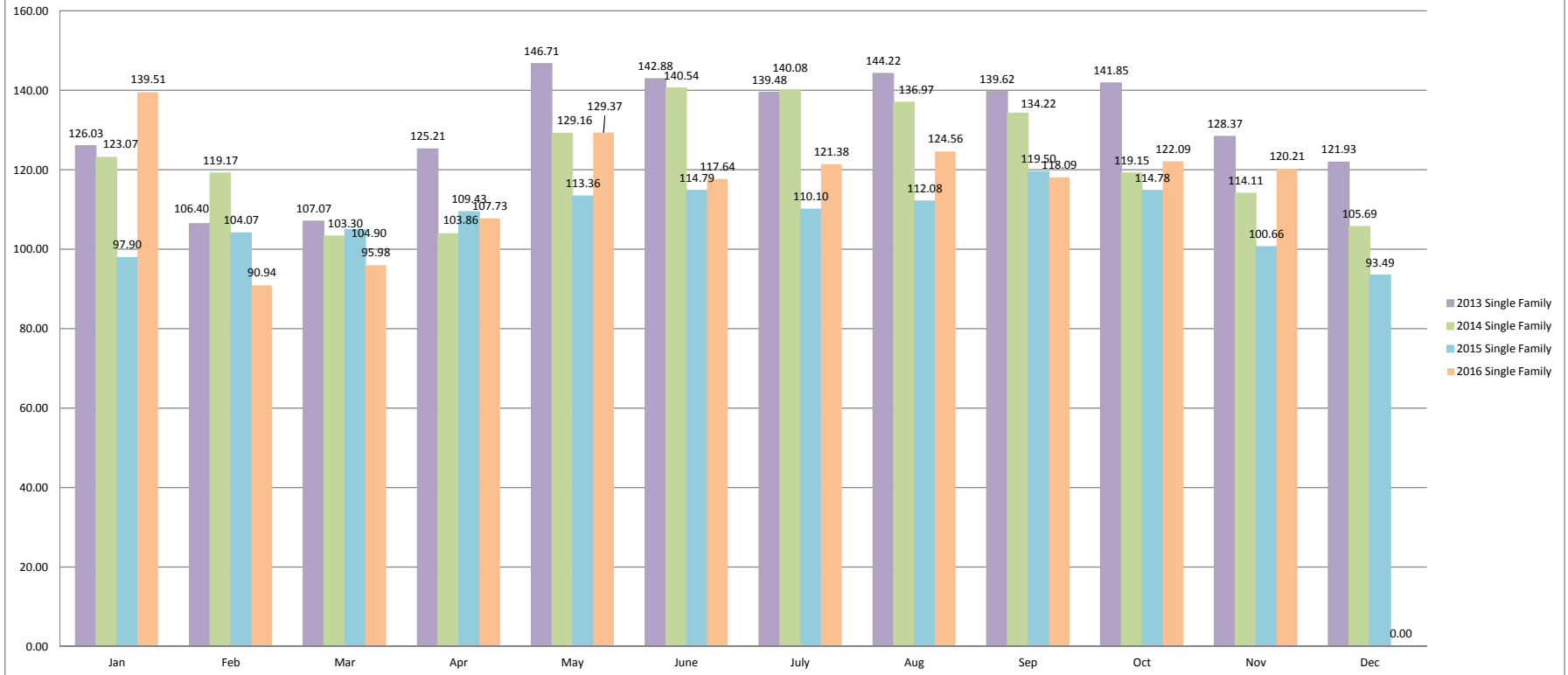
TOTAL												
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2014 (units)	1077	1124	2317	1655	2577	3142	4421	2732	1772	3210	961	362
2015 (units)	898	2602	1988	1561	1234	4651	1968	5705	3832	2968	1269	1327
2016 (units)	1203	2546	1221	3726	4068	2537	2283	1872	1702	1970	2259	
2015 (# of meters)	20	22	23	27	25	26	30	30	30	35	35	33
2016 (# of meters)	33	27	28	33	29	32	33	32	33	32	34	



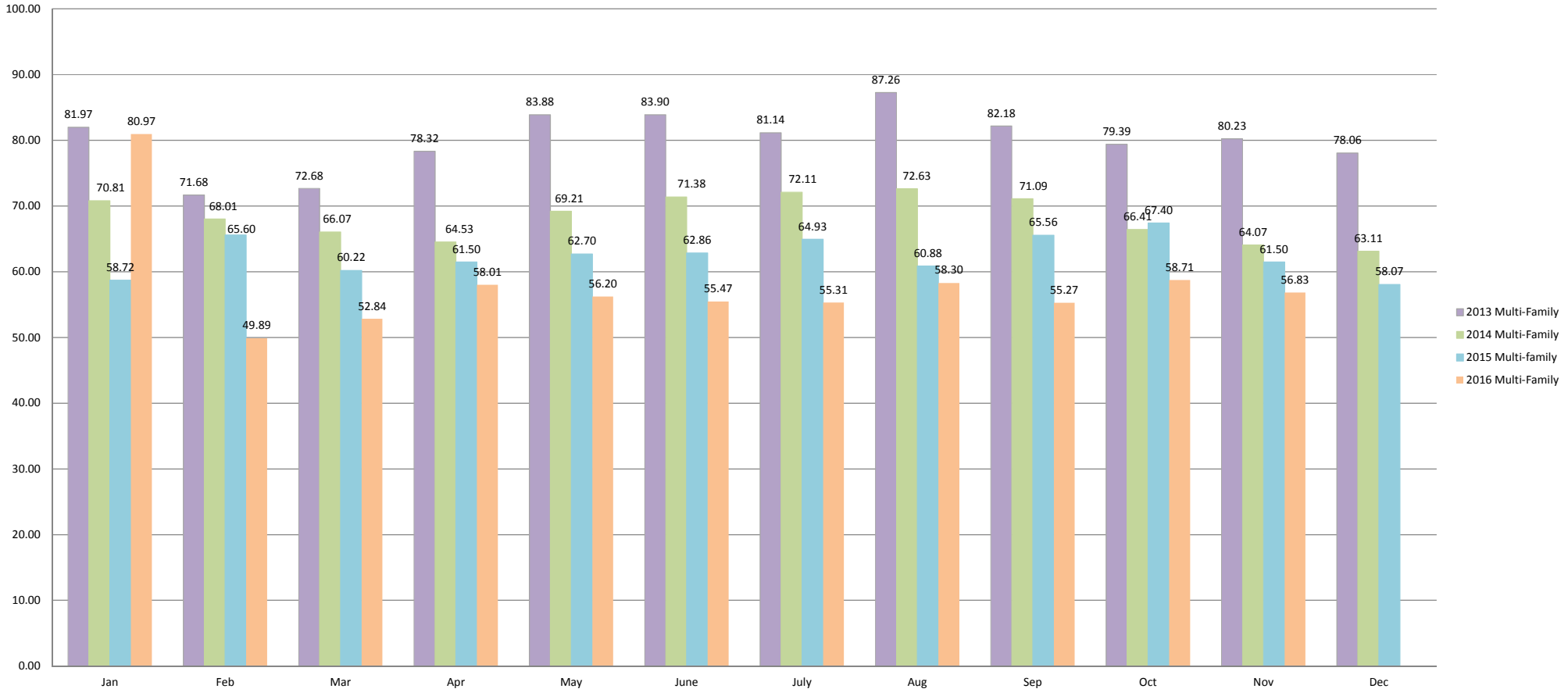
## Temporary Meter Water Use: Percentage of Total Production

Past 12 Months												
	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Production (HCF)	95,145	92,514	91,443	92,514	108,689	115,777	120,456	123,797	124,598	125,670	118,717	110,828
Temporary Hydrant Use (HCF)	1327	1203	2546	1221	3726	4068	2537	2283	1872	1702	1970	2259
Percentage	1.4%	1.3%	2.8%	1.3%	3.4%	3.5%	2.1%	1.8%	1.5%	1.4%	1.7%	2.0%

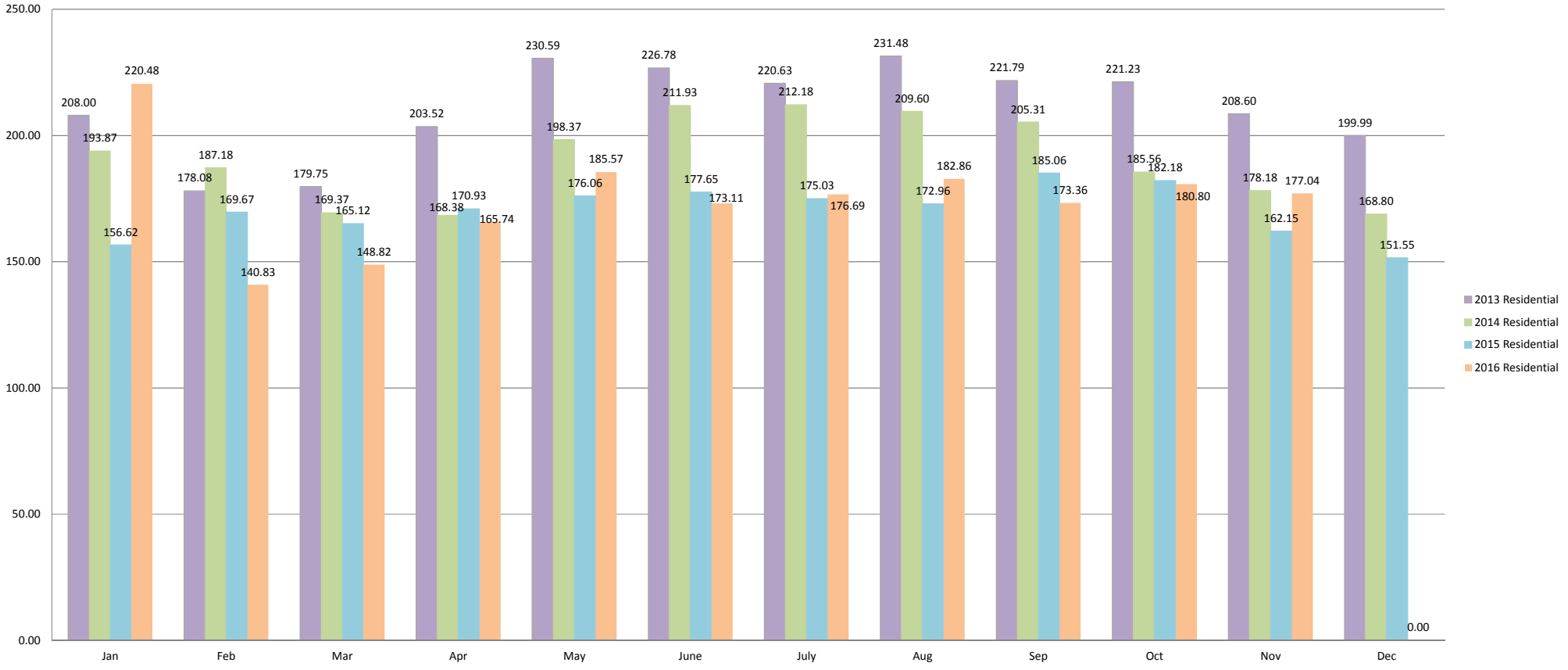
2013-2016 Single Family Consumption by Month (Acre-Feet)



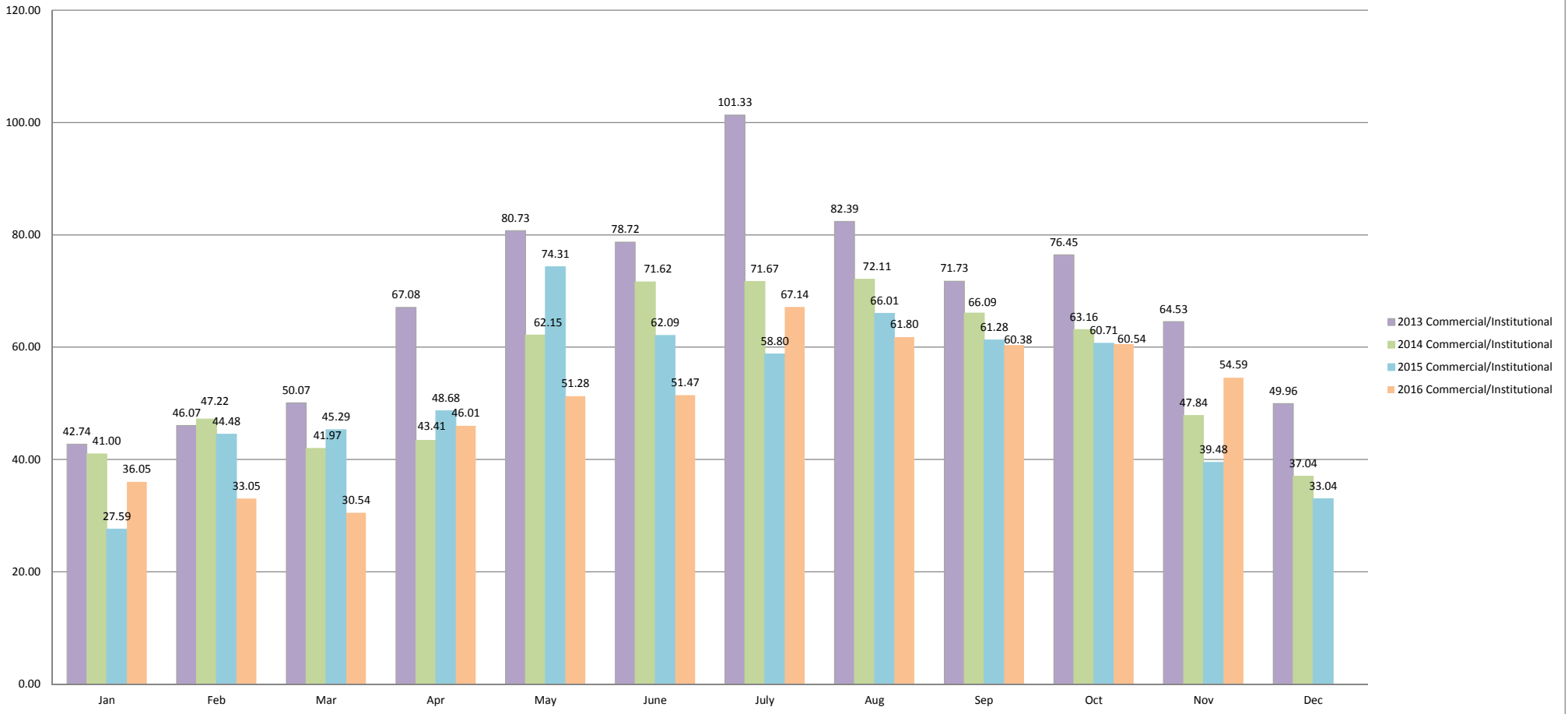
2013-2016 Multi-Family Total Consumption by Month (Acre-Feet)



**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)

