moulton niguel water district

WATER SOFTENER RULES AND REGULATIONS REVISIONS

WATER SOFTENING 101

- Water hardness is a measure of specific minerals in water that can impact the performance of various household and commercial functions
- “Hard Water” is a measurement of mainly Calcium and Magnesium levels in water
- Water Softener units use “ion exchange” technology to remove hardness
- Brine and backwash discharge are byproducts of “regenerating water softeners” that enter sewer

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TYPICAL WATER SOFTENERS

Commercial / Industrial

Residential

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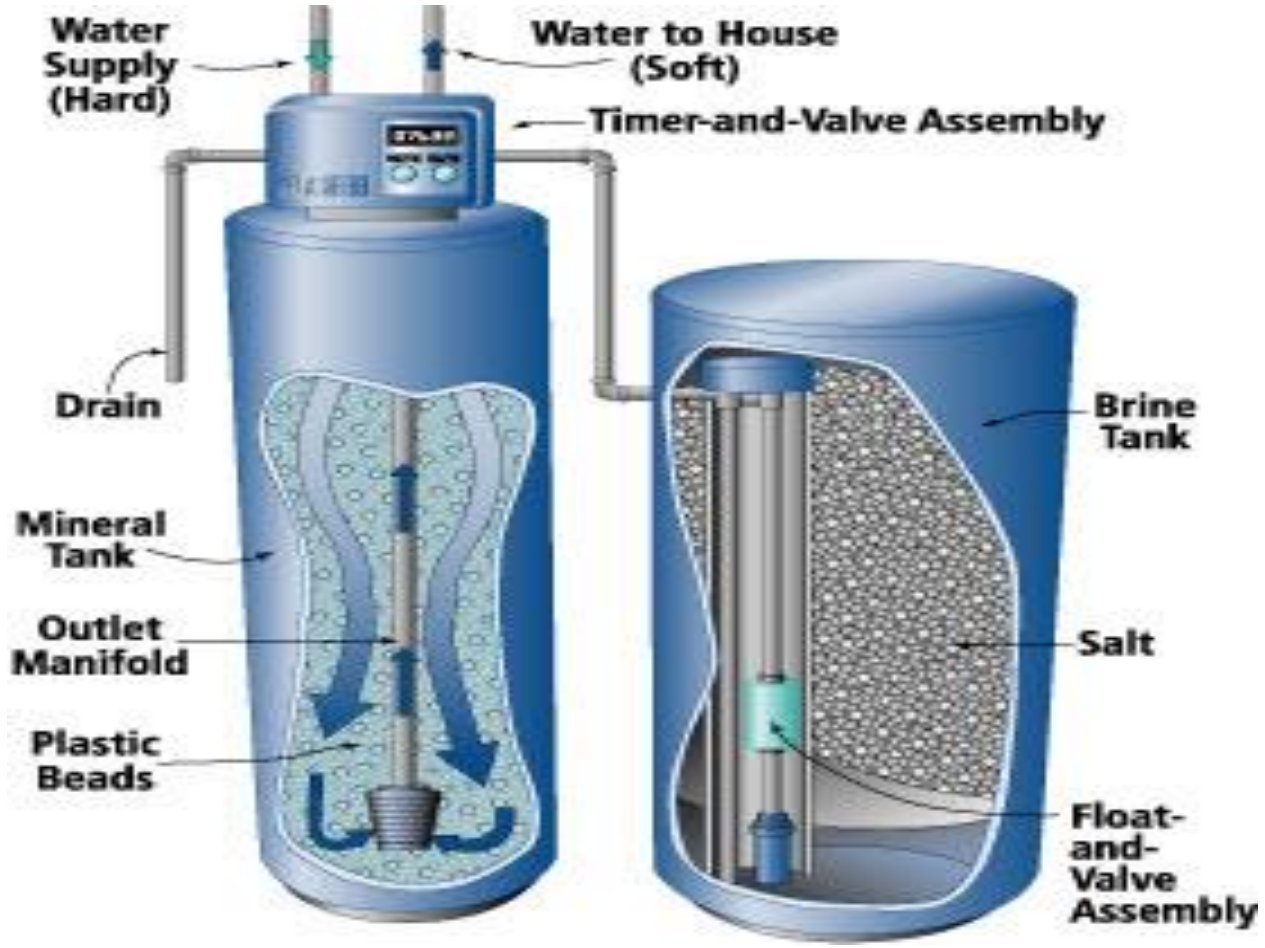
WATER SOFTENING PROCESS



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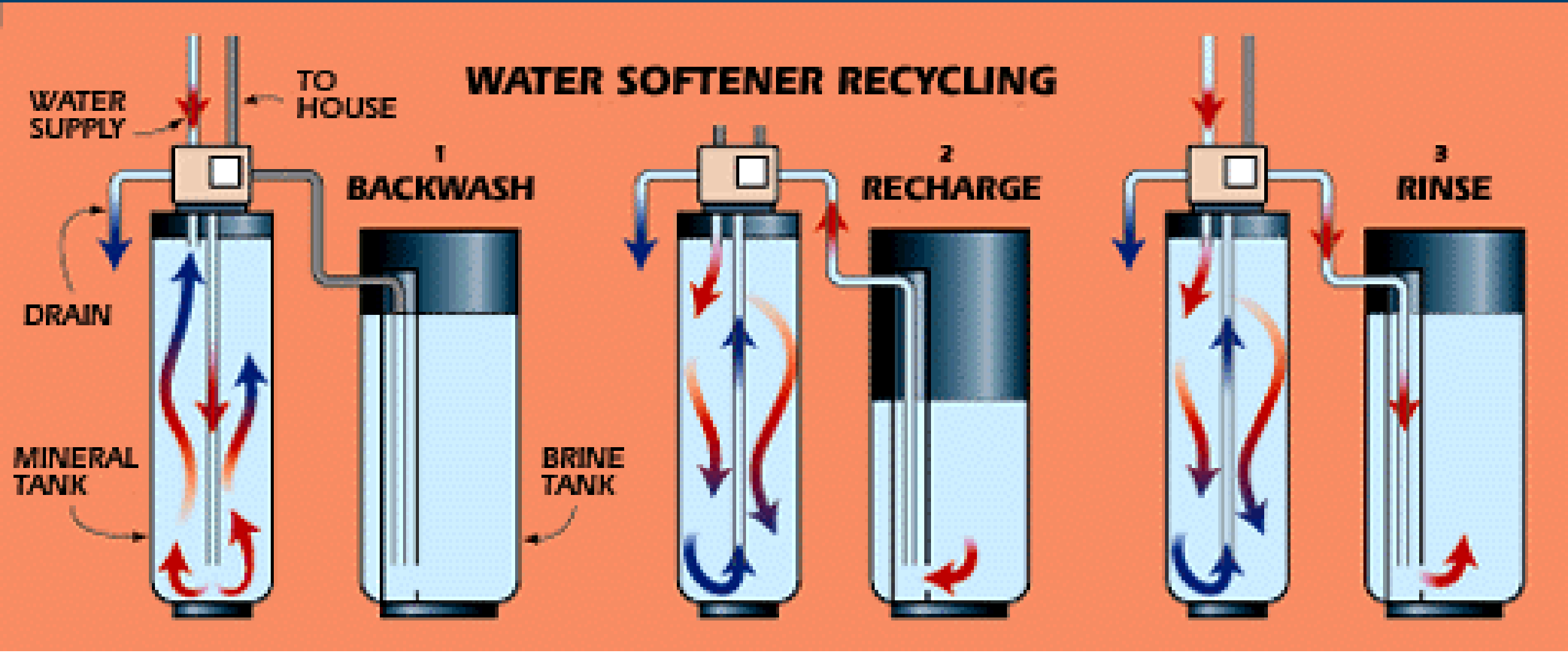
WATER SOFTENING PROCESS



CODE STATUTES AND DISTRICT RULES & REGULATIONS

- District R&R's currently prohibit use of self-regenerating water softeners
- Two Statutes, Health & Safety Code and California Water Code, require specific conditions be met to allow for restricting residential water softener use
- Codes do not provide policy on restriction of non-residential water softener use
- Health &Safety Code: Local agency must have specific findings through independent studies showing restriction is "necessary means" of Waste Discharge or Permit compliance
- Water Code: Specific findings by Regional Board on impacts to water quality objectives be substantiated to "control" salinity input from residential water softeners
- No findings have been made by Region 9 of San Diego Regional Water Quality Control Board or by MNWD / SOCWA
- Relief of District's prohibition would not have noticeable impact on wastewater salinity levels
- Revisions will reference compliance with Health & Safety Code Section 116775, et seq.

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STAFF RECOMMENDATION

- Sections 5.B.2, 5.J.1.k, and 12 of District's Rules and Regulations be modified (per Exhibit A) and adopted to comply with Health and Safety Code Section 116775, et seq

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Questions?

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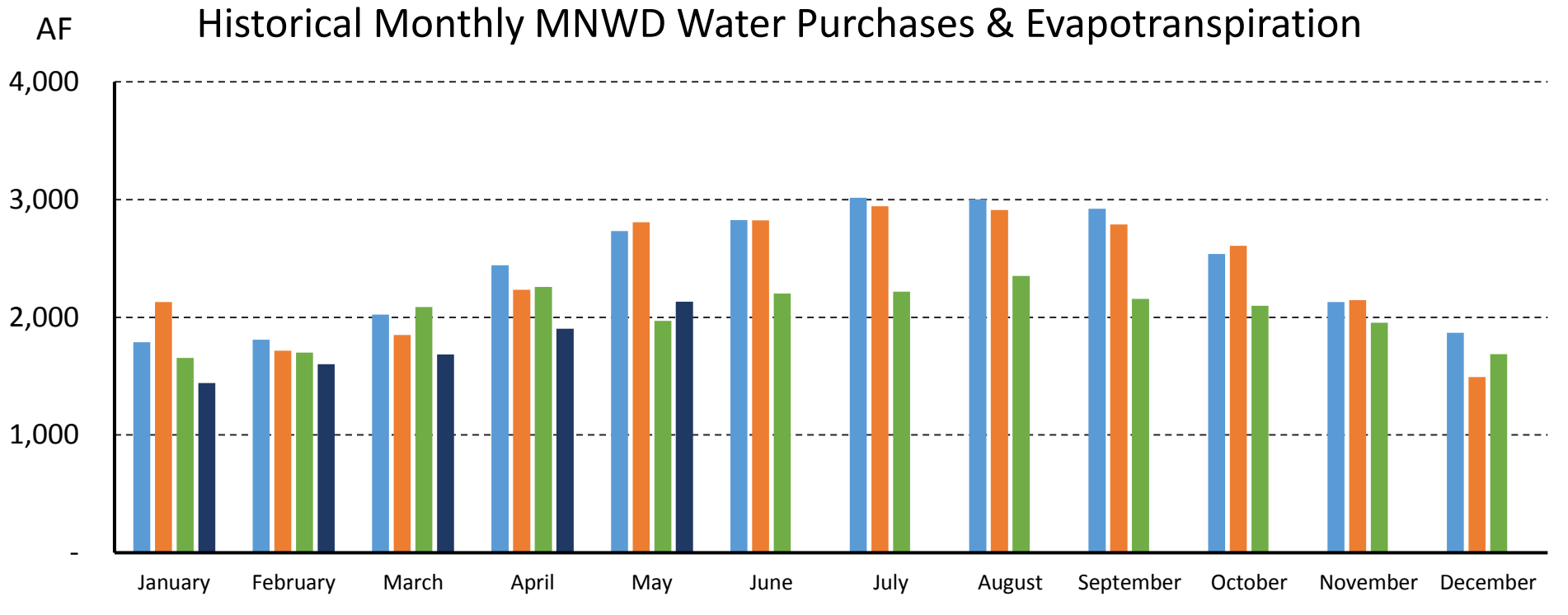

	Year	ET (Inches)											
	2013	2.54	2.88	4.08	4.79	5.99	6.07	5.81	6.53	5.26	3.92	2.52	2.49
	2014	2.82	2.64	4.09	5.54	6.39	6.45	6.54	6.23	5.21	3.94	3.16	1.91
	2015	2.52	3.02	4.96	5.31	4.48	5.75	5.69	6.27	5	3.88	3.24	2.35
	2016	1.87	3.82	3.98	5.16	4.63							

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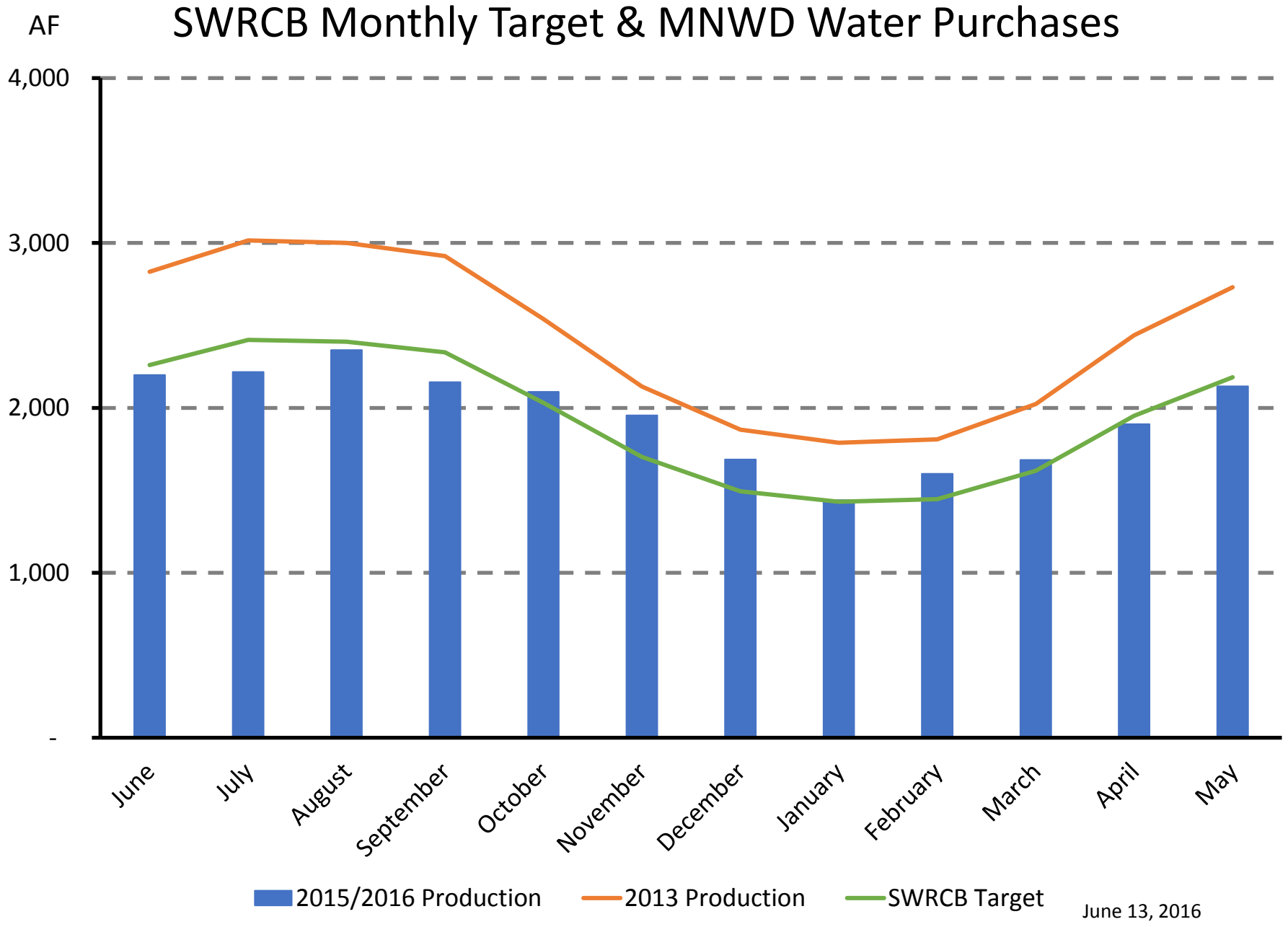
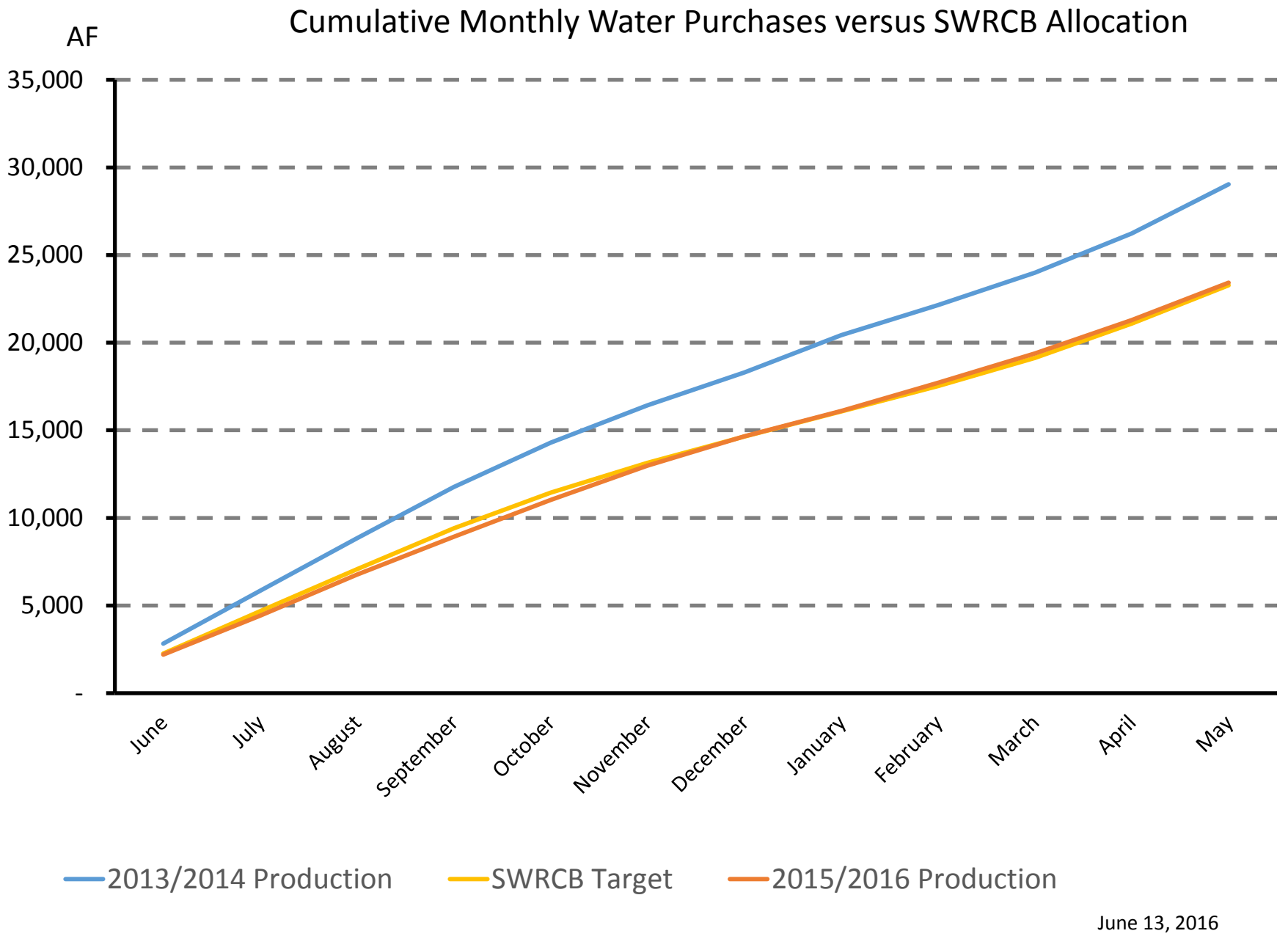
SWRCB Monthly Target & MNWD Water Purchases




Cumulative Monthly Water Purchases versus SWRCB Allocation
AF
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
June
July
August
September
October
November
December
January
February
March
April
May
2013/2014 Production
SWRCB Target
2015/2016 Production

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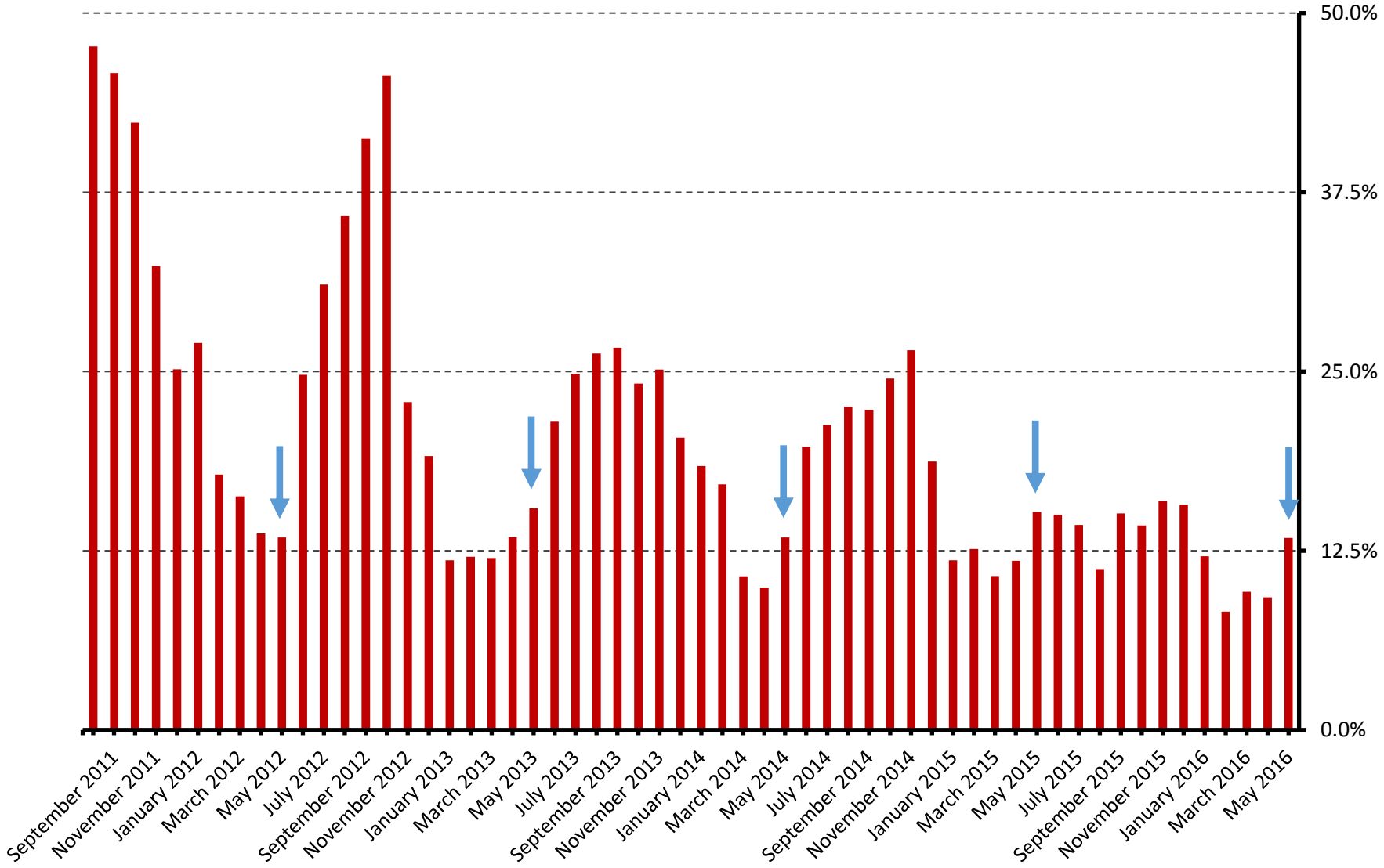
Single Family Residential Accounts Above Tier 2



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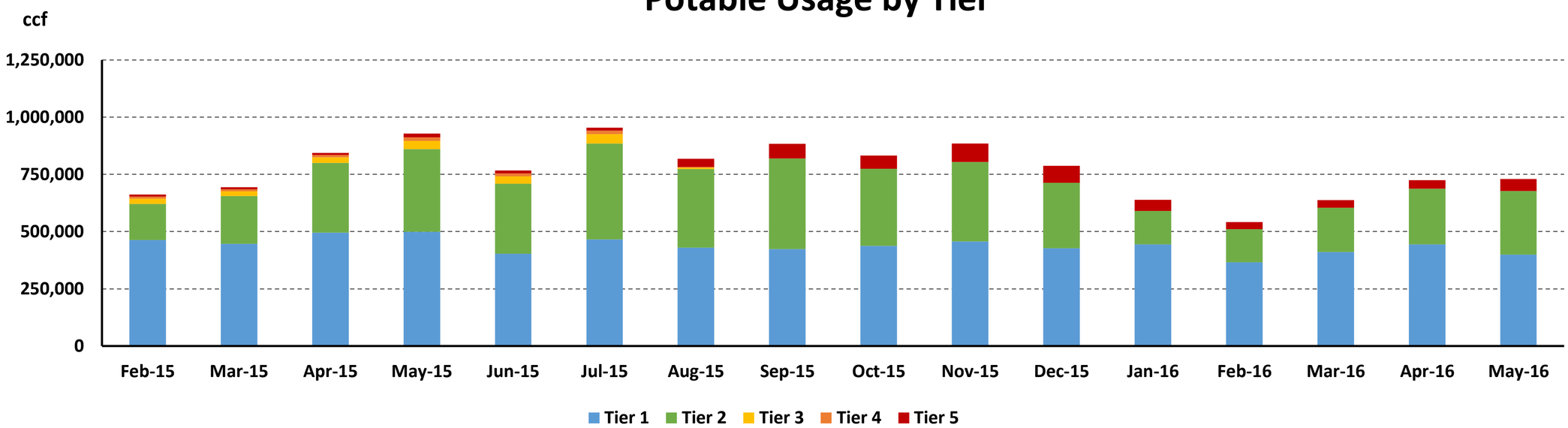
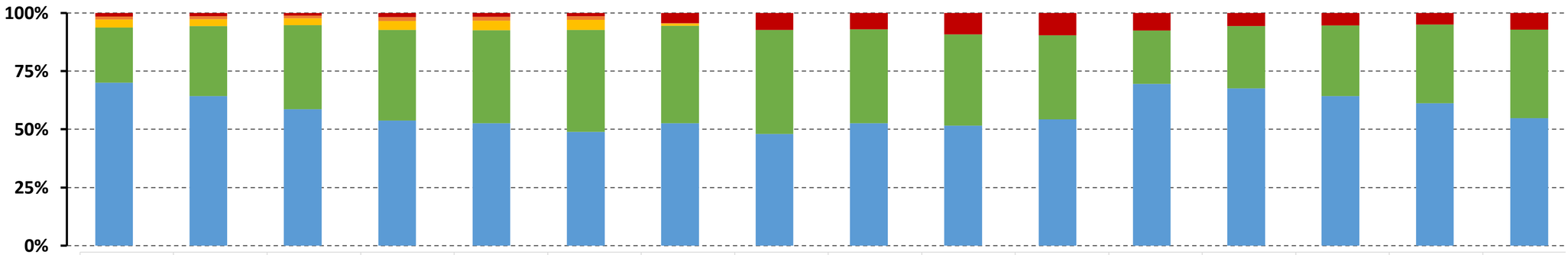
Potable Usage by Tier



AF in Tier 3, 4, 5	94	89	101	154	131	159	102	148	134	187	173	110	70	78	83	119

Percent Potable Usage by Tier



	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
Tier 5	1.5%	1.4%	1.1%	1.8%	1.6%	1.4%	4.3%	7.3%	7.0%	9.2%	9.6%	7.5%	5.6%	5.4%	5.0%	7.1%
Tier 4	1.4%	1.2%	1.1%	1.7%	1.7%	1.6%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 3	3.3%	3.0%	3.0%	3.8%	4.1%	4.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 2	23.8%	30.1%	36.1%	39.0%	40.0%	43.8%	41.9%	44.7%	40.4%	39.2%	36.2%	22.9%	26.8%	30.3%	33.7%	38.1%
Tier 1	70.0%	64.3%	58.7%	53.7%	52.6%	48.9%	52.6%	48.0%	52.6%	51.6%	54.3%	69.6%	67.6%	64.3%	61.3%	54.8%

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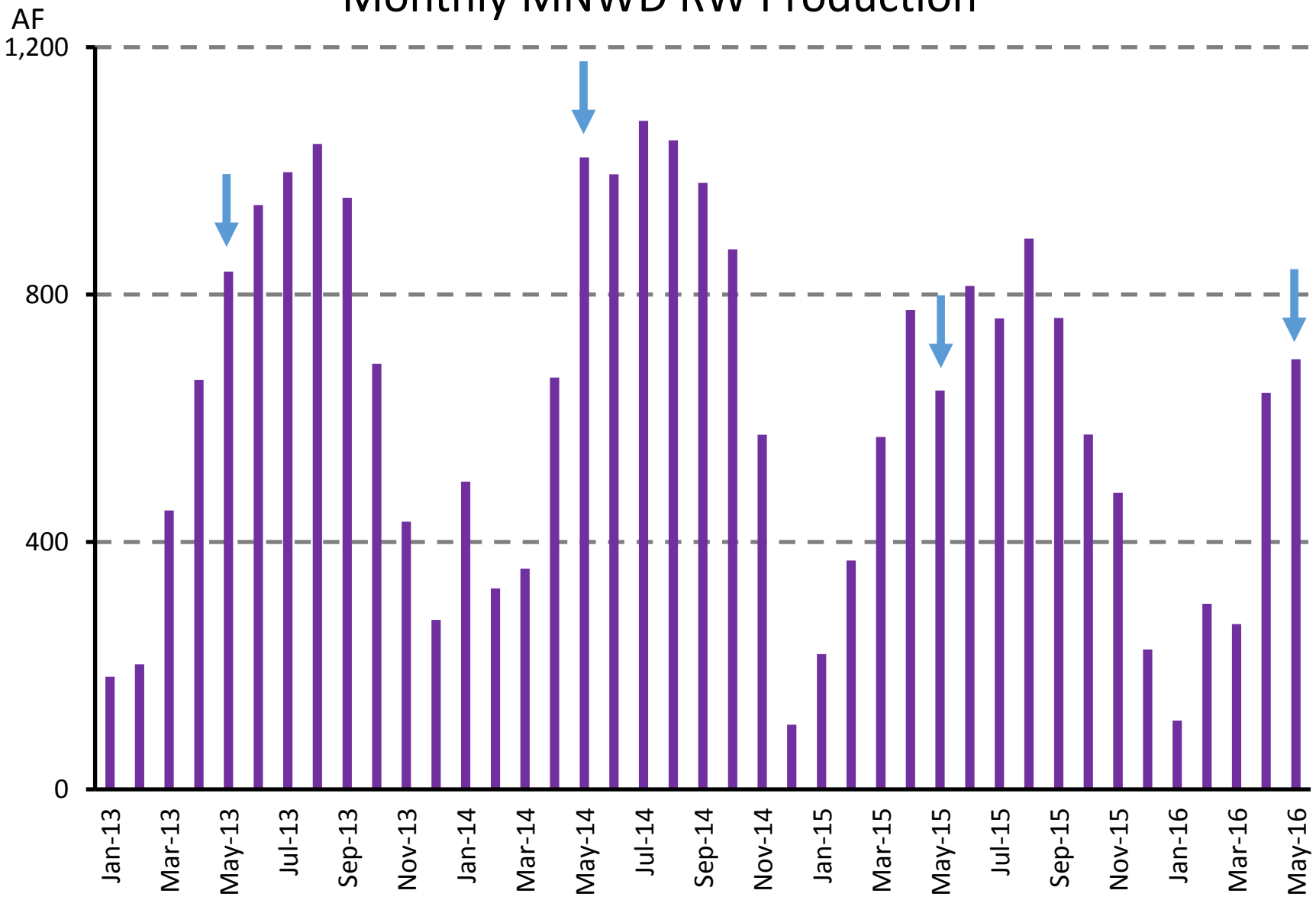
Monthly MNWD RW Production



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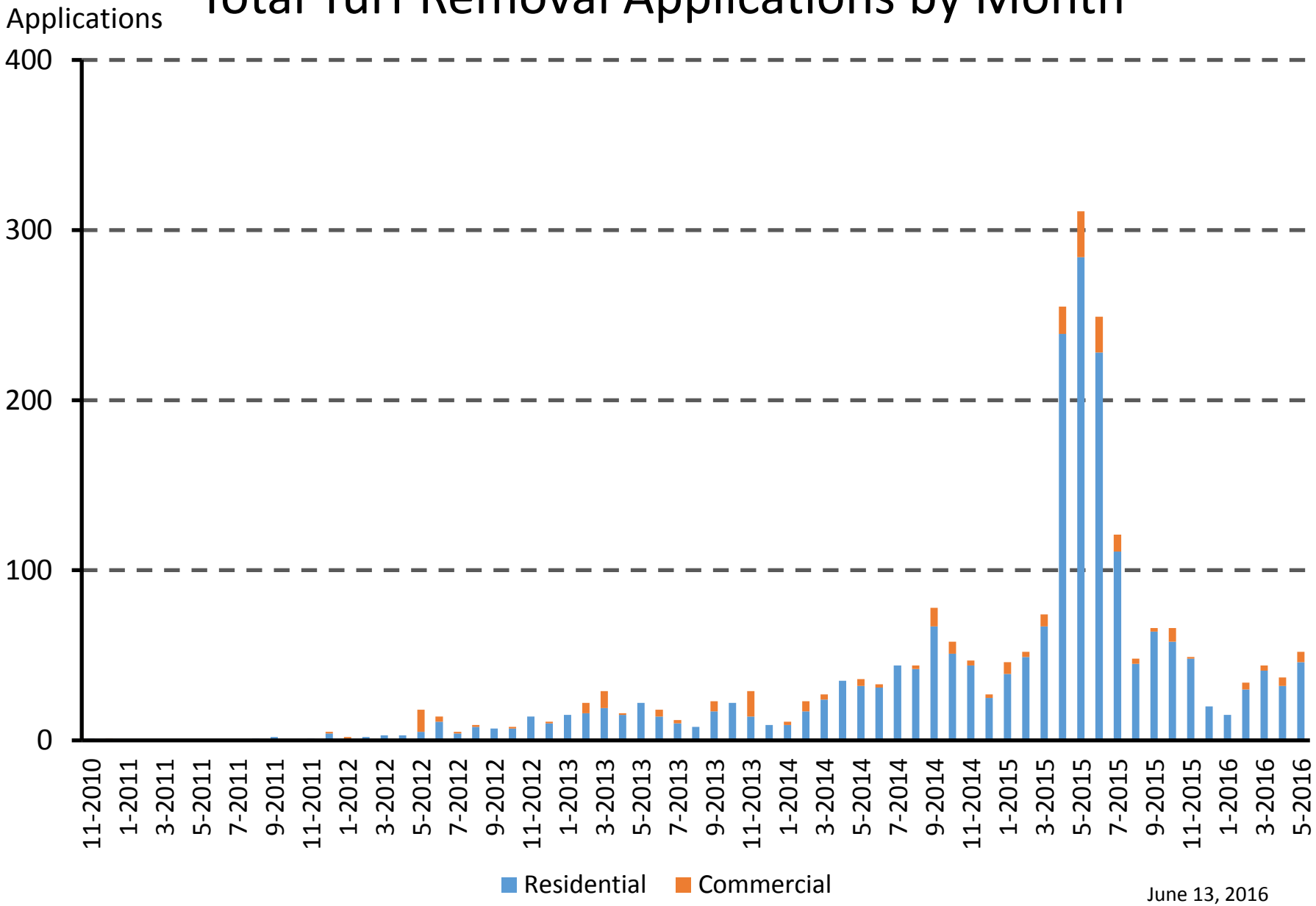
Total Turf Removal Applications by Month



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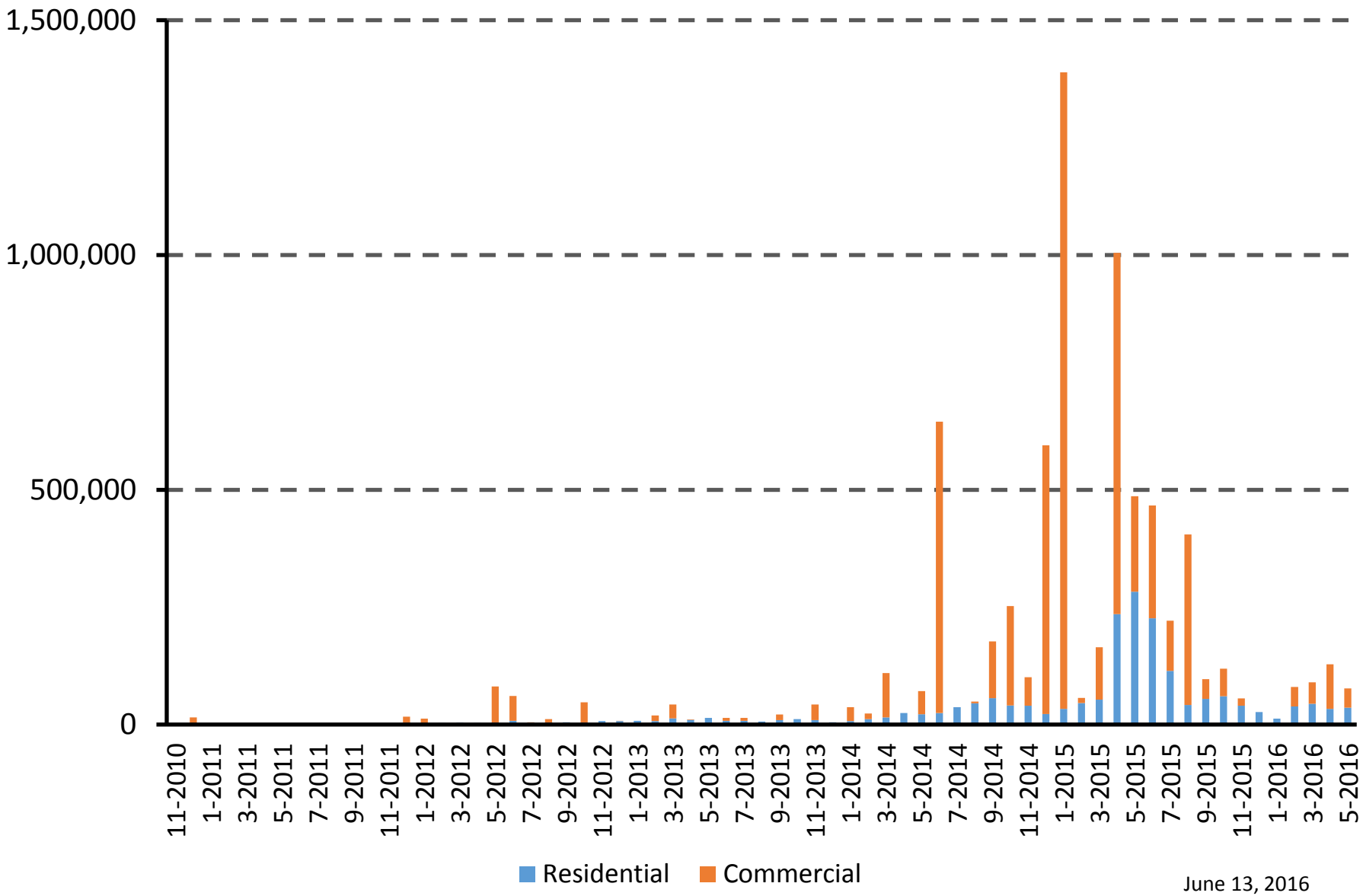
Total Turf Removal Application Size by Month



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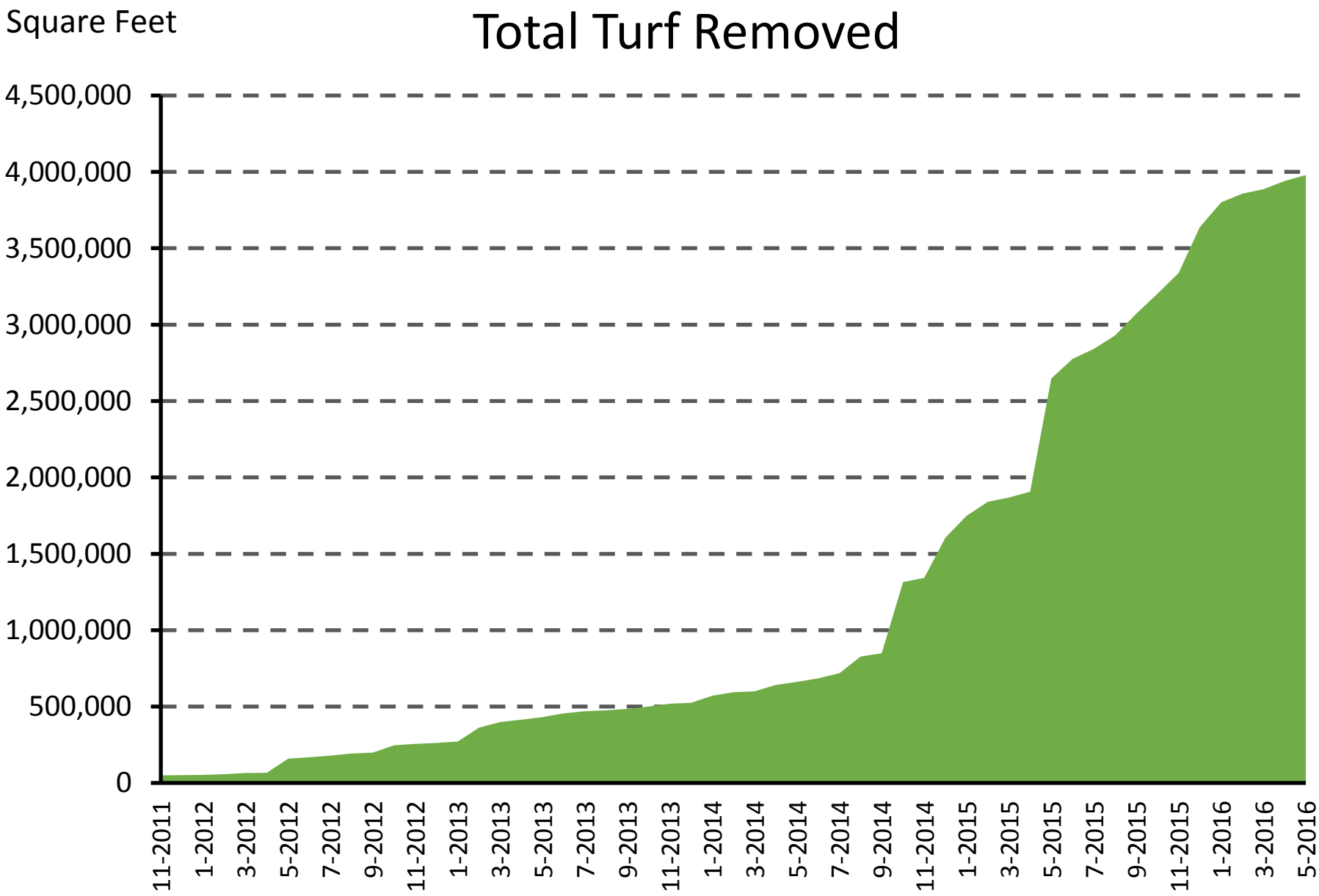
Total Turf Removed



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