

Moulton Niguel Water District

Period Ending
March 31, 2017



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Economic Update

SECTION 1

Consolidated Information

Investment Objectives

Safety – Safety of principal is the foremost objective of the investment program. Investments will be undertaken in a manner that seeks to ensure to preservation of capital in the overall portfolio.

Liquidity – The investment portfolio will remain sufficiently liquid to meet all operating requirements that may be reasonably anticipated.

Return – The investment portfolio will be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the investment risk constraints for safety and liquidity needs.

Chandler Asset Management Performance Objective

The performance objective for the District is to earn a return in excess of the strategy benchmarks:

Liquid Fund: Bank of America Merrill Lynch 3-Month US Treasury Bill Index.

Limited Maturity Fund: Bank of America Merrill Lynch 0-3 Yr US Treasury/Agency Index.

Operating Reserve Fund: Bank of America Merrill Lynch 1-10 Yr Treasury/Agency Index.

Bond Reserves: To earn a commensurate rate of return over market cycles while ensuring compliance with the District's indentured funds.



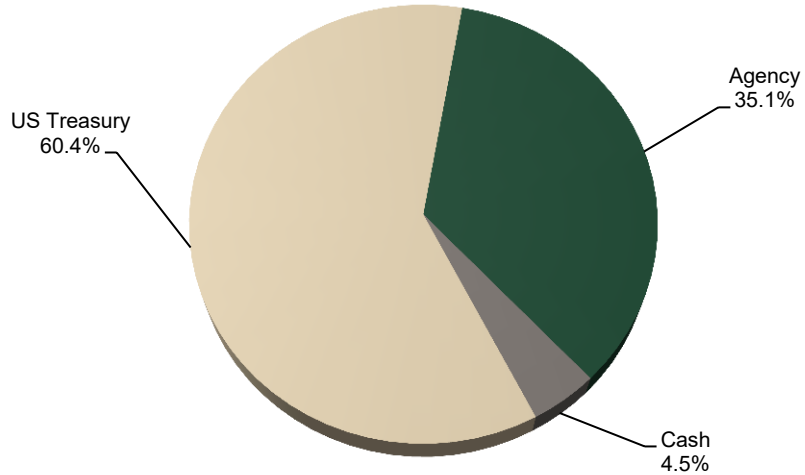
Moulton Niguel Water District Bond Reserves

	3/31/2017	12/31/2016
	Portfolio	Portfolio
Average Maturity (yrs)	2.96	2.95
Modified Duration	2.86	2.85
Average Purchase Yield	1.11%	1.03%
Average Market Yield	1.50%	1.45%
Average Quality	AA+/Aaa	AA+/Aaa
Contributions/Withdrawals	0	
Total Market Value	7,736,000	7,704,250

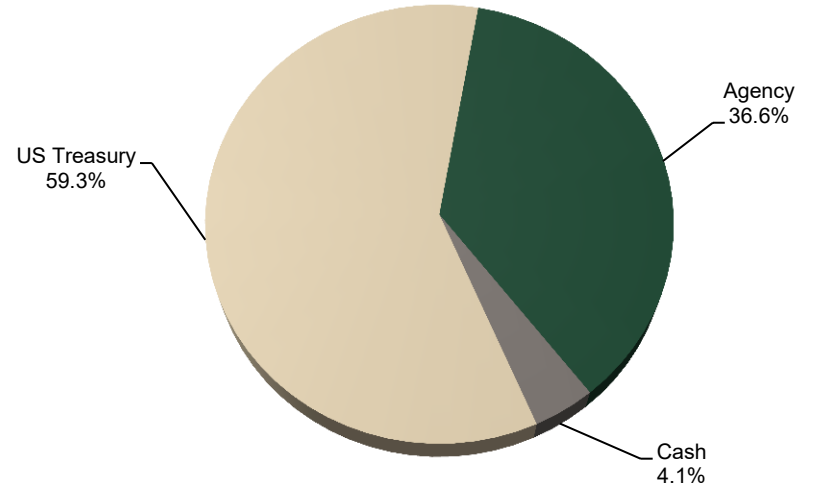


Moulton Niguel Water District Bond Reserves

March 31, 2017



December 31, 2016





Moulton Niguel Water District Consolidated

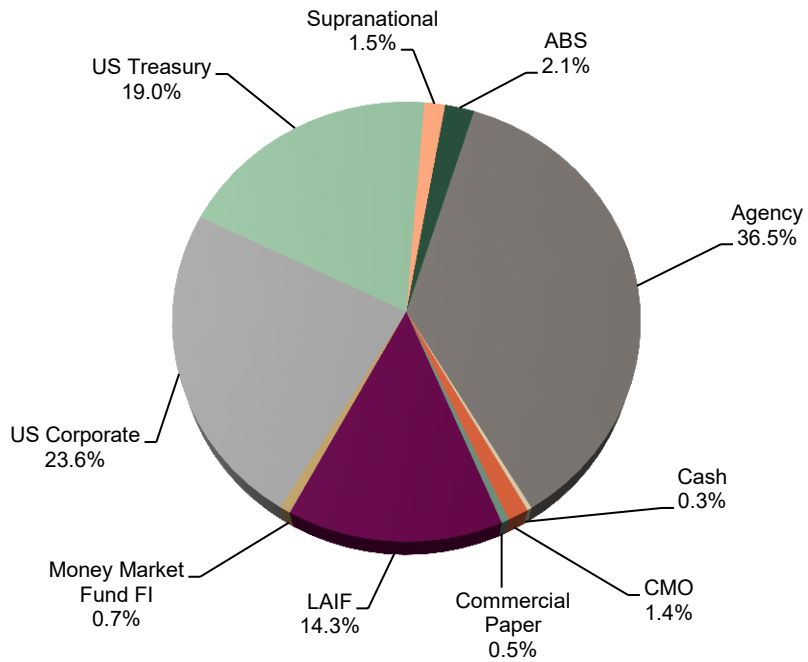
	3/31/2017	12/31/2016
	Portfolio	Portfolio
Average Maturity (yrs)	2.92	2.96
Modified Duration	2.71	2.74
Average Purchase Yield	1.82%	1.74%
Average Market Yield	1.62%	1.57%
Average Quality	AA/Aa1	AA/Aa1
Contributions/Withdrawals	(4,661,875)	
Total Market Value	124,626,438	128,615,201



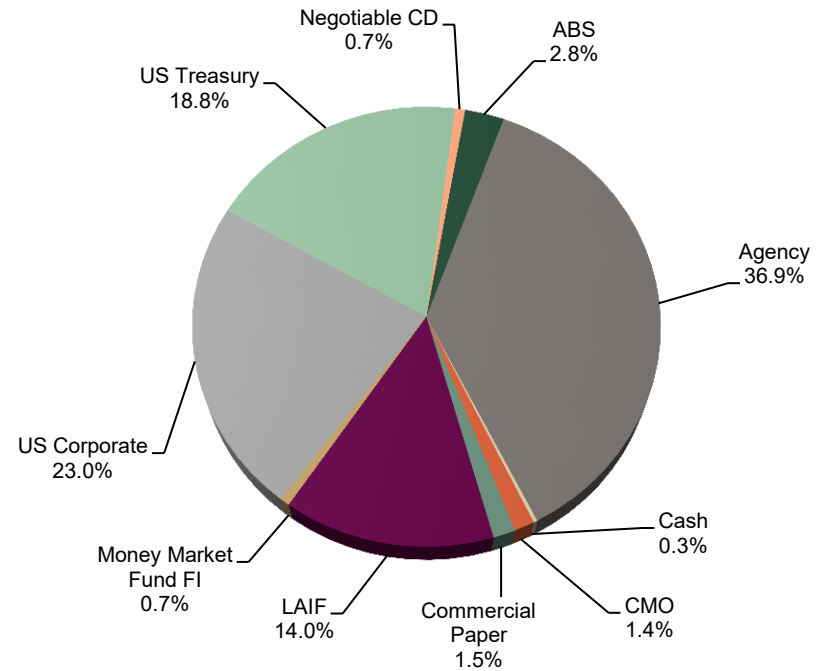
Sector Distribution

Moulton Niguel Water District Consolidated

March 31, 2017



December 31, 2016



Moulton Niguel Water District Consolidated – Account #43
As of 3/31/2017

Issue Name	Investment Type	Avg Mkt Yield	Avg Maturity	% Portfolio
Government of United States	US Treasury	1.80%	4.42	19.04%
Local Agency Investment Fund	LAIF	0.83%	0.00	14.34%
Federal Home Loan Bank	Agency	1.78%	3.63	10.99%
Federal National Mortgage Association	Agency	1.96%	5.03	10.74%
Federal Home Loan Mortgage Corp	Agency	1.67%	3.34	8.05%
Tennessee Valley Authority	Agency	1.79%	3.65	5.23%
General Electric Co	US Corporate	1.42%	0.39	1.71%
ChevronTexaco Corp	US Corporate	1.42%	1.02	1.56%
Inter-American Dev Bank	Supranational	2.04%	4.81	1.51%
Federal Farm Credit Bank	Agency	1.44%	2.35	1.48%
Qualcomm Inc	US Corporate	1.97%	2.63	1.46%
US Bancorp	US Corporate	1.87%	2.65	1.45%
Federal Home Loan Mortgage Corp	CMO	1.54%	1.40	1.38%
Bank of New York	US Corporate	1.89%	2.45	1.34%
Charles Schwab Corp/The	US Corporate	1.52%	0.94	1.31%
Paccar Financial	US Corporate	1.75%	2.02	1.31%
Honda Motor Corporation	US Corporate	1.61%	1.53	1.31%
Oracle Corp	US Corporate	2.31%	4.46	1.07%
Apple Inc	US Corporate	1.28%	1.09	1.00%
State Street Bank	US Corporate	2.40%	4.14	1.00%
JP Morgan ABS	ABS	1.47%	3.04	0.99%
Exxon Mobil Corp	US Corporate	2.17%	3.92	0.99%
JP Morgan Chase & Co	US Corporate	1.75%	1.83	0.98%
Toyota Motor Corp	US Corporate	1.62%	1.80	0.98%
Cisco Systems	US Corporate	1.57%	1.92	0.97%
Deere & Company	US Corporate	1.60%	1.70	0.95%
Berkshire Hathaway	US Corporate	2.18%	3.96	0.84%
Pepsico Inc	US Corporate	1.71%	3.08	0.79%
Wells Fargo Adv Govt Money Market Fund	Money Market Fund FI	0.42%	0.00	0.72%
Microsoft	US Corporate	2.17%	4.36	0.68%
Intel Corp	US Corporate	1.26%	0.71	0.66%
HSBC USA Corp	US Corporate	1.70%	0.80	0.64%
Honda ABS	ABS	1.33%	1.42	0.50%
Bank of Tokyo-Mit UFJ	Commercial Paper	1.20%	0.27	0.49%
John Deere ABS	ABS	1.25%	1.47	0.46%
Wells Fargo Corp	US Corporate	1.73%	0.80	0.32%
Bank Cash Account	Cash	0.00%	0.00	0.28%
Air Products & Chemicals	US Corporate	1.27%	0.54	0.24%

Moulton Niguel Water District Consolidated – Account #43
As of 3/31/2017

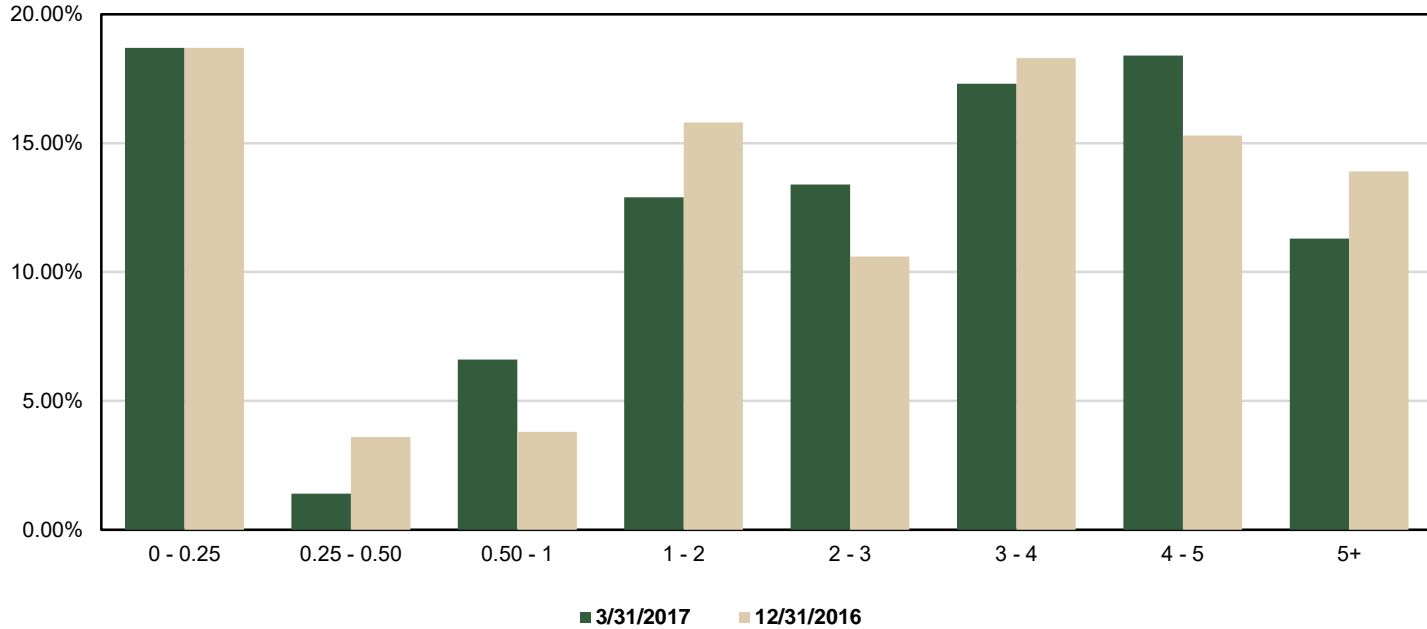
Issue Name	Investment Type	Avg Mkt Yield	Avg Maturity	% Portfolio
Toyota ABS	ABS	1.35%	1.84	0.15%
United Technology Corp	US Corporate	1.21%	0.17	0.09%
Total		1.62%	2.92	100%



Duration Distribution

Moulton Niguel Water District Consolidated

March 31, 2017 vs. December 31, 2016



	0 - 0.25	0.25 - 0.50	0.50 - 1	1 - 2	2 - 3	3 - 4	4 - 5	5+
03/31/17	18.7%	1.4%	6.6%	12.9%	13.4%	17.3%	18.4%	11.3%
12/31/16	18.7%	3.6%	3.8%	15.8%	10.6%	18.3%	15.3%	13.9%

SECTION 2

Account Profile



Bond Reserves

	Bond Reserves	
	3/31/2017	12/31/2016
Portfolio book value	\$7,829,544	\$7,801,325
Market value	\$7,736,000	\$7,704,250
Net Contribution/Withdrawal for the Period	\$0	--
Average book yield	1.11%	1.03%
Average maturity (yrs)	2.96	2.95
Modified duration	2.86	2.85
\$ change in value for 1% change in rates	\$221,210	\$219,721
% maturing within two years	16.2%	22.0%
Average credit quality	AA+/Aaa	AA+/Aaa



Liquid Fund

	BAML 3-Month US Treasury Bill Index	Liquid Fund	
	3/31/2017	3/31/2017	12/31/2016
Portfolio book value	--	\$17,837,671	\$18,003,903
Market value	--	\$17,873,804	\$18,018,179
Net Contribution/Withdrawal for the Period	--	(\$180,000)	--
Average book yield	--	0.78%	0.67%
Average maturity (yrs)	0.15	0.00	0.00
Modified duration	0.15	0.00	0.00
\$ change in value for 1% change in rates	--	\$0	\$0
% maturing within one year	100%	100%	100%
Average credit quality	AAA	Not Rated	Not Rated



Limited Maturity Fund

	BAML 0-3 Yr US Treasury Index	Limited Maturity Fund	
	3/31/2017	3/31/2017	12/31/2016
Portfolio book value	--	\$17,432,494	\$9,563,123
Market value	--	\$17,082,110	\$9,544,102
Net Contribution/Withdrawal for the Period	--	\$7,490,676	--
Average book yield	--	1.91%	1.36%
Average maturity (yrs)	1.40	1.20	1.20
Modified duration	1.37	0.92	1.07
\$ change in value for 1% change in rates	--	\$157,155	\$102,122
% maturing within two years	68.6%	73.0%	74.4%
Average credit quality	AAA	AA/Aa2	AA/Aa2



Operating Reserve Fund

	BAML 1-10 Yr US Treasury/Agency Index	Operating Reserve Fund	
	3/31/2017	3/31/2017	12/31/2016
Portfolio book value	--	\$81,104,368	\$92,888,470
Market value	--	\$81,934,524	\$93,346,461
Net Contribution/Withdrawal for the Period	--	(\$11,972,551)	--
Average book yield	--	2.08%	2.05%
Average maturity (yrs)	3.90	3.91	3.71
Modified duration	3.65	3.67	3.43
\$ change in value for 1% change in rates	--	\$3,006,997	\$3,201,784
% maturing within two years	22.5%	20.1%	24.1%
Average credit quality	AAA	AA/Aa1	AA/Aa1

SECTION 3

Economic Update



■ **Federal Open Market Committee (FOMC)**

- The FOMC raised the fed funds target rate by 25 basis points to a range of 0.75%-1.00% in March.

■ **Labor Markets**

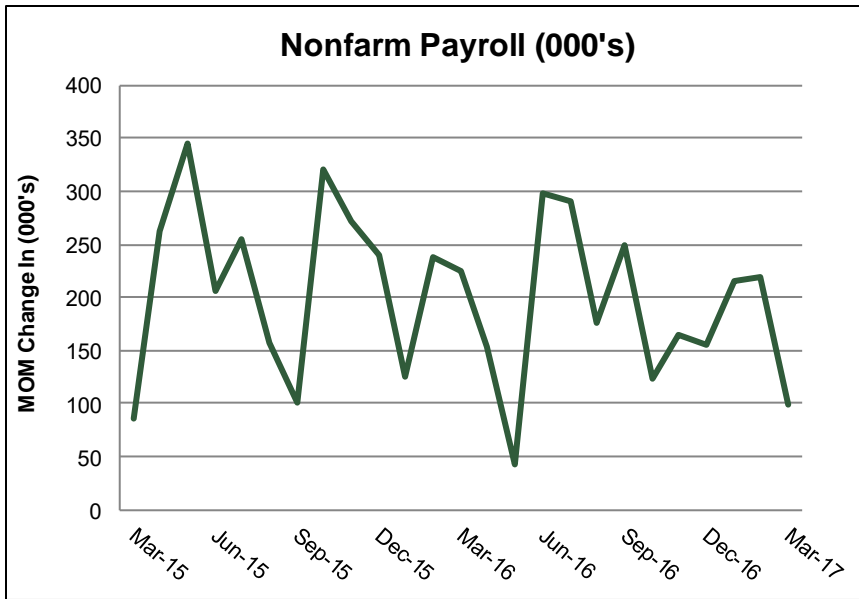
- The economy is likely at or near full employment, consumer confidence is strong, manufacturing indicators have improved, and housing trends remain favorable.

■ **Inflation**

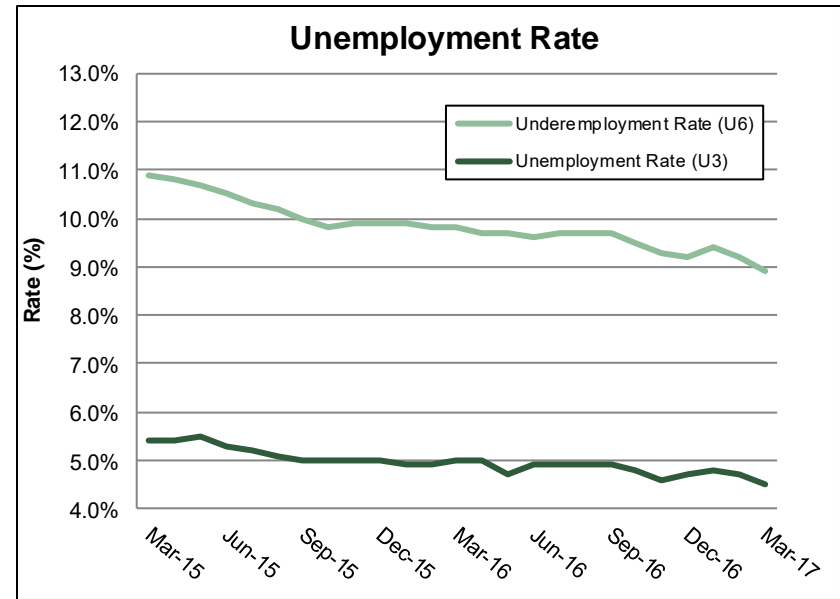
- The Federal Reserve's preferred inflation gauge, the Core Personal Consumption Expenditures (PCE) index was up 1.8% in February.

■ **Economic growth**

- Fourth quarter real GDP grew at an annualized rate at 2.1%.

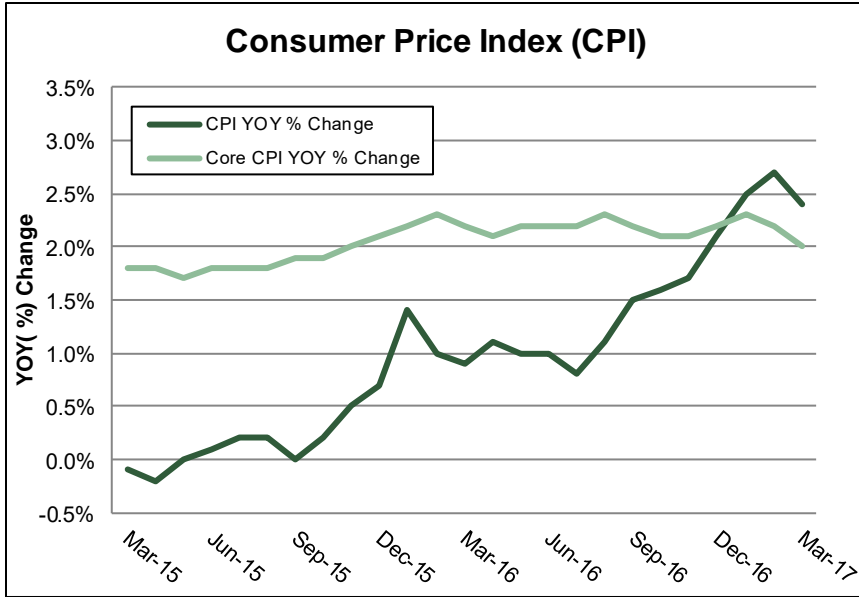


Source: US Department of Labor

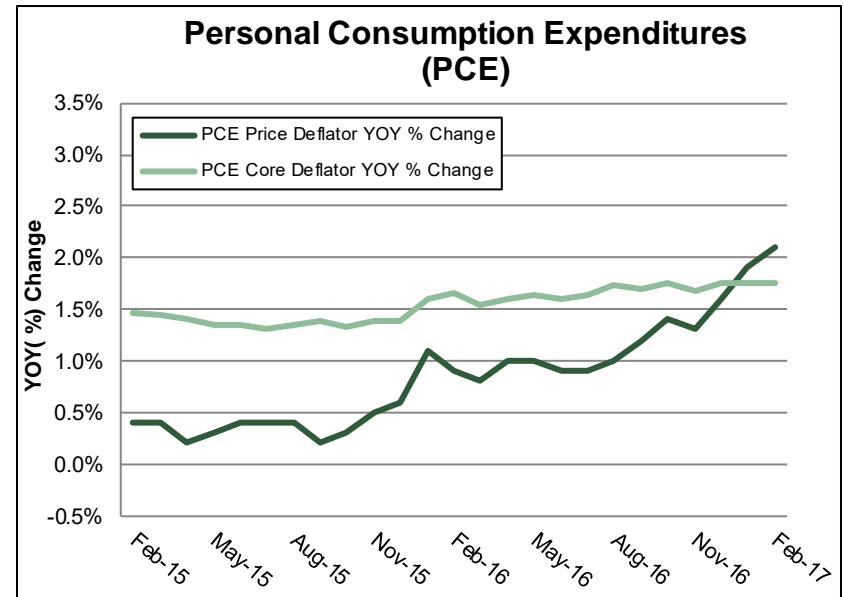


Source: US Department of Labor

Nonfarm payrolls were significantly lower than expected in March, up 98,000 versus the consensus forecast of 175,000. January and February payrolls were revised down by 38,000. On a trailing 3-month and 6-month basis, payrolls increased by an average of 178,000 and 163,000 per month, respectively. The unemployment rate fell to 4.5% in March from 4.7% in February. The participation rate was unchanged at 63.0%. A broader measure of unemployment called the U-6, which includes those who are marginally attached to the labor force and employed part time for economic reasons, decreased to 8.9% in March from 9.2% in February. Wage growth rose 0.2% in March, versus expectations for a 0.3% increase. This follows an upwardly revised gain of 0.3% in February (previously 0.2%). On a year-over-year basis, wages were up 2.7% in March, vs. 2.8% in February.

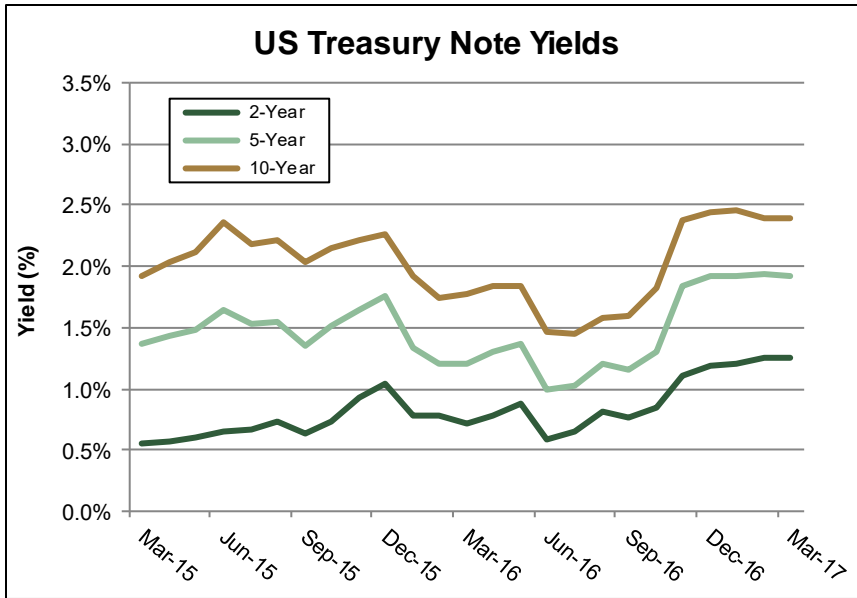


Source: US Department of Labor

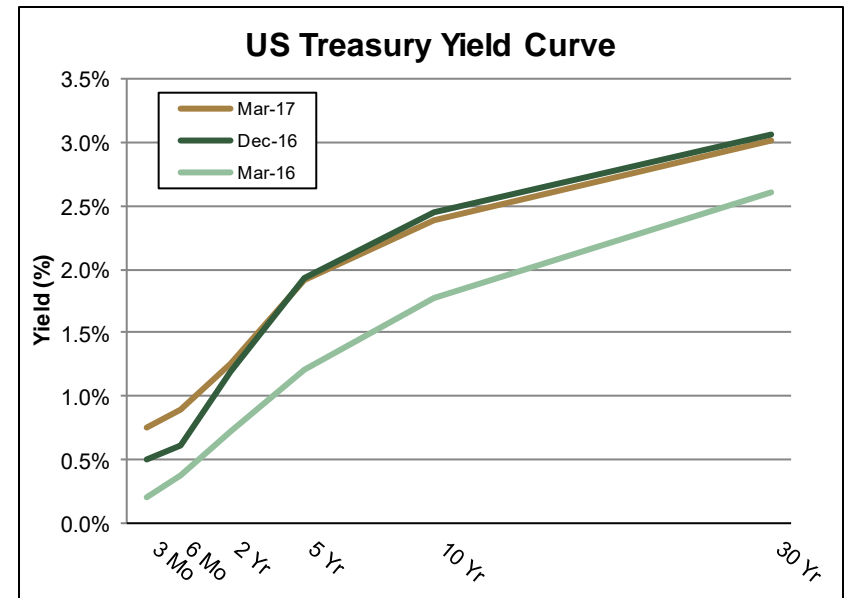


Source: US Department of Labor

The Consumer Price Index (CPI) was up 2.4% year-over-year in March, versus up 2.7% year-over-year in February. Core CPI (CPI less food and energy) was up 2.0% year-over-year in March, versus up 2.2% year-over-year in February. The Personal Consumption Expenditures (PCE) index was up 2.1% year-over-year in February, versus up 1.9% year-over-year in January. Core PCE (excluding food and energy) was up 1.8% year-over-year in February, versus up 1.7% year-over-year in January. Core CPI is in line with the Fed's 2.0% target, and the Fed's primary inflation gauge (PCE) may be approaching the Fed's 2.0% target.



Source: Bloomberg



Source: Bloomberg

Over the past three months, the yield curve flattened, following a dramatic post-election curve steepener. In the past three months, the 2-year Treasury yield is up about 7 basis points and the 10-year Treasury yield is down about 6 basis points. Notably, shorter-term yields (1-year and under) are up more than 20 basis points during that time period. On a year-over-year basis the 2-year Treasury yield has increased 53 basis points and 10-year Treasury yield is up about 62 basis points.



Information contained herein is confidential. Prices are provided by IDC, an independent pricing source. In the event IDC does not provide a price or if the price provided is not reflective of fair market value, Chandler will obtain pricing from an alternative approved third party pricing source in accordance with our written valuation policy and procedures. Our valuation procedures are also disclosed in Item 5 of our Form ADV Part 2A.



moulton niguel water district

Water Efficiency Fund FY 17-18 Proposed Budget

Finance and Information Technology Board Meeting
May 15, 2017

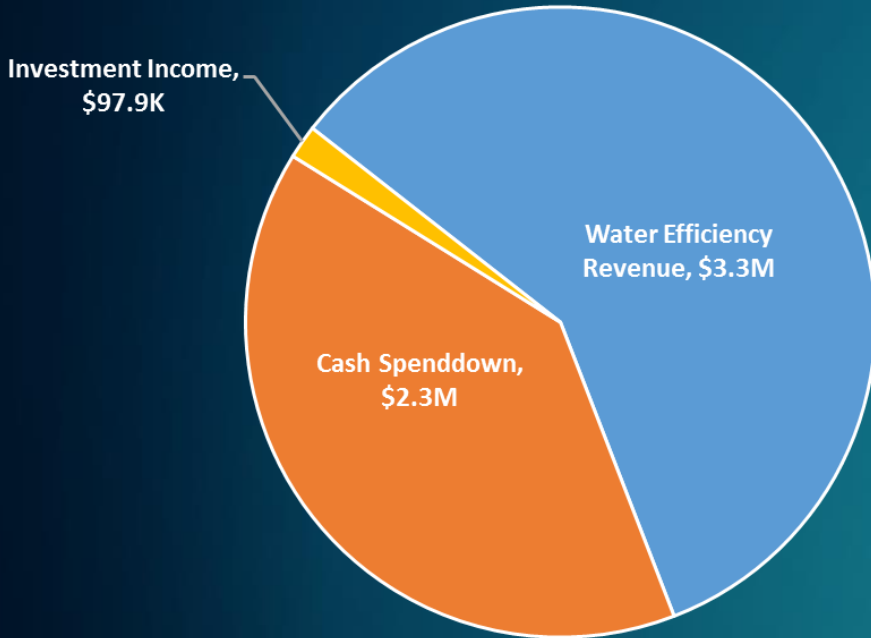
Goals & Objectives FY 2017-18

- Iterative Program Development
- Commercial and Outdoor Efficiency Initiatives
- Develop Versatile Customer Service Tools
- Education and Professional Training
- Water Efficiency Incentives
- Understanding Market Transformation
- Long Term Efficiency Framework

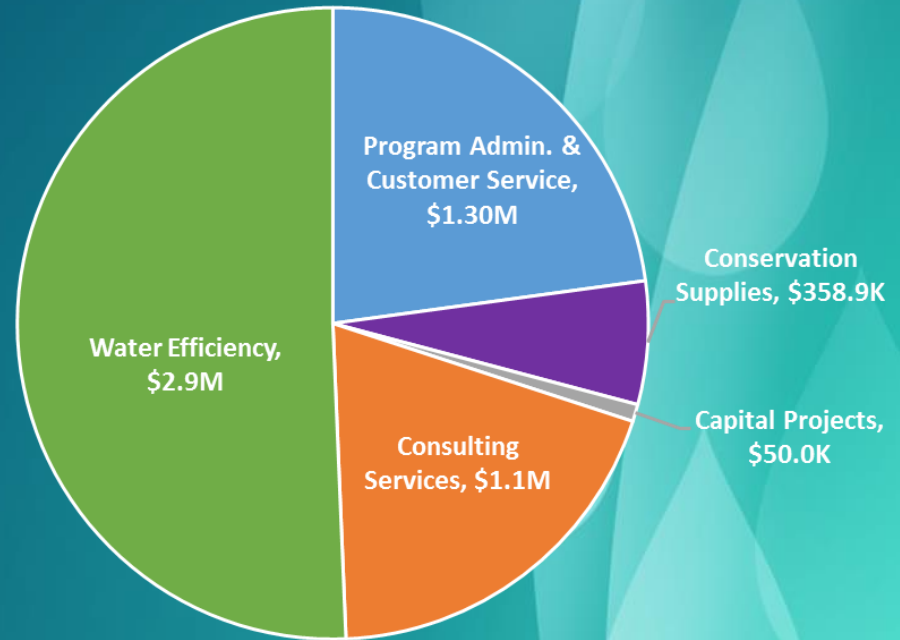


FY 2017-18 WUE Fund Summary

WUE Source of Funds = \$5.69M



WUE Use of Funds = \$5.69M



Program Development

- Implement Key Recommendations from UCR Study
- Targeted programming & marketing
- Pilots – iterative, measured approach
- Adaptive, designed to scale up

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Public Policy

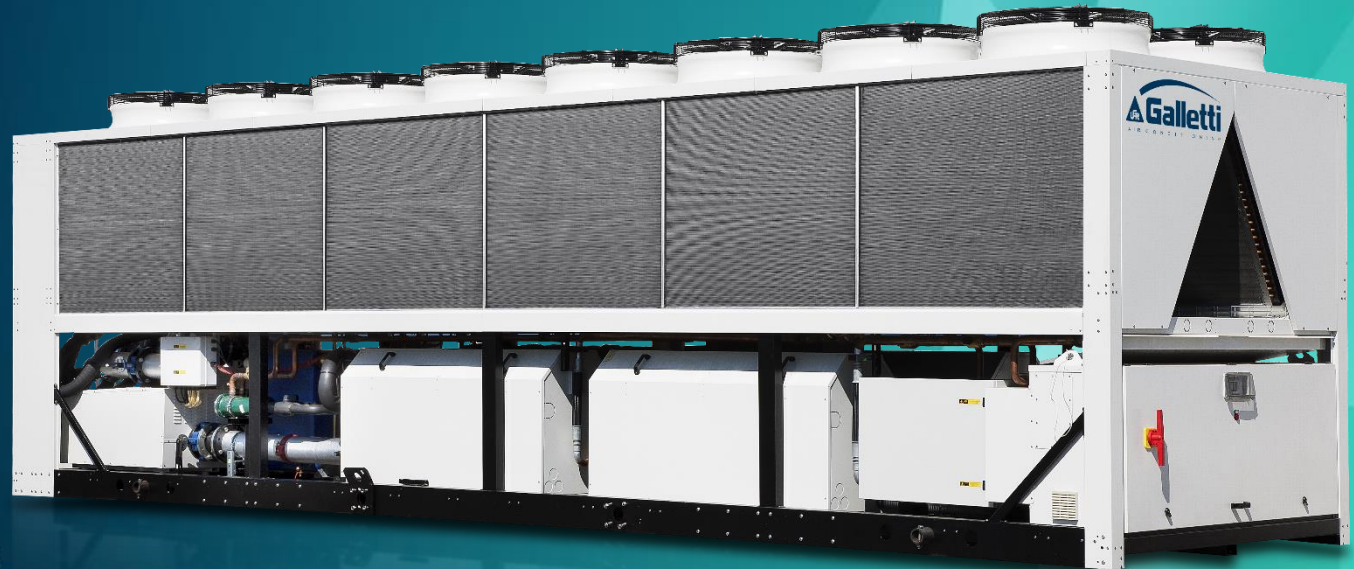


moulton niguel water district



Scale Commercial Programs

- Commercial Site Visits
 - Healthy Buildings (\$150K)
- Customized Commercial Incentives
 - Water Savings Incentive Program (\$75K)



Outdoor Water Efficiency Programs

- Smart Timer Program (\$150K)
- Direct Install Turf Replacement
 - Pilot in FY 2016-17
 - Native Landscape Installations
 - Fall 2017: Full-Scale Program (\$300K)
- Pressure Reduction Pilot (\$5K)



Customer Service & Smart Technology

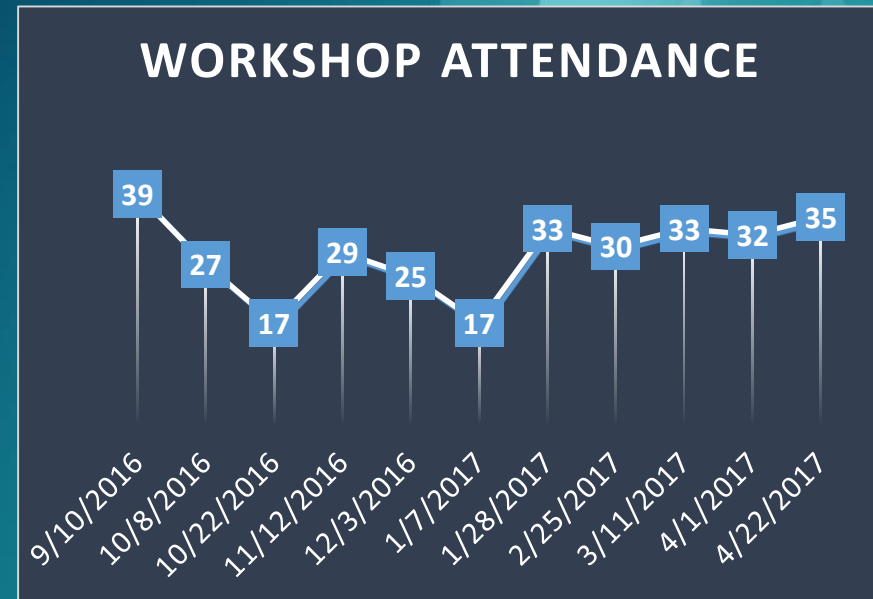
- SUS Customer Portal & AMI Technology (\$90k)
 - Usage history, bill pay, leak alerts
- SeamlessDocs Form Builder (\$30K)
 - Customizable Workflow Manager
 - Streamline administrative processes
 - Program & customer status tracking



seamless docs

Education

- Workshops
 - Record Attendees = 320
 - Residential Landscaping
 - Irrigation & Budget Basics
- Education
 - Project WET
 - Professional Landscape Training



Water Efficiency Incentives

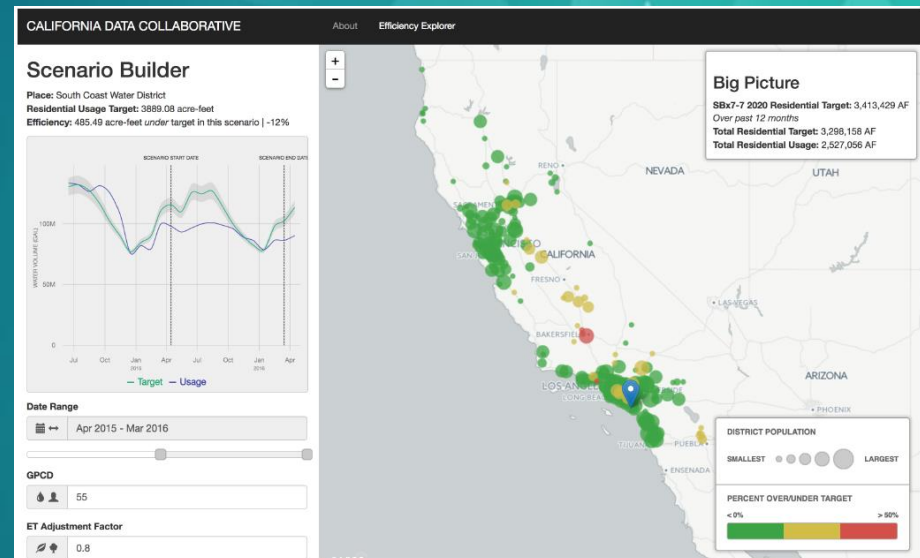
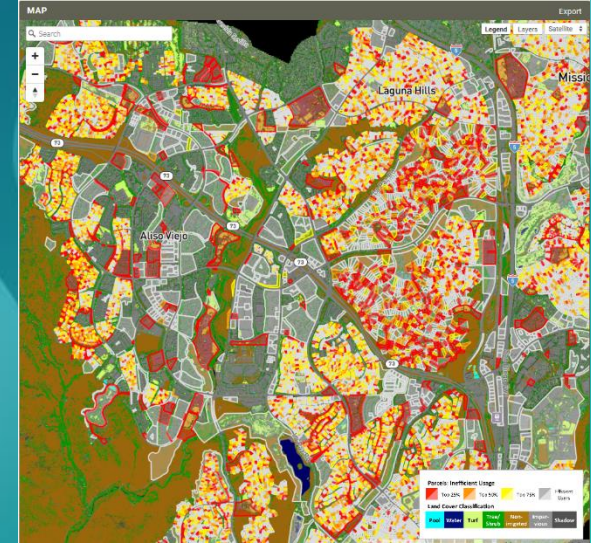
- Funding based on current activity levels
- No change to device funding amounts
- Consultant support for site inspections

Program	Funding Level	FY 17-18 Budget
Turf Removal	\$2 per square foot	\$2 million
Smart Timer	\$150 per timer	\$200K
High Efficiency Nozzles	\$4 per nozzle	\$150K
CII Spray to Drip	\$0.20 per square foot	\$100K



Market Transformation & Long Term Framework

- OmniEarth Portal & Imagery License
 - Track turf conversion over time
- California Data Collaborative
 - State efficiency explorer tool
 - Framework support





moulton niguel water district

Bill Print, Mail, and Payment Processing Services

Finance & Information Technology Board Meeting

May 15, 2017

Current Bill Payment Options

Method	Type	Auto Pay	Access	Customer Cost	Paperless Billing
Official Payments	Credit Card	No	Phone or Internet: 1-877-853-1057 www.officialpayments.com	\$3.95 Per Payment	#N/A
e.Bill	ACH/Checking Acct	Yes - not required	e.Bill enrollment (Infosend)	None	Automatically enrolled
AutoPay	ACH/Checking Acct	Yes	Authorization Form (District)	None	No
MyWater MNWD Customer Portal	Check/Credit Card	No	Customer Portal	Credit/Debit <ul style="list-style-type: none"> • \$2.50 Non-AMEX (2.5% for transactions above \$200) • \$3.00 AMEX(3% for transactions above \$200) ACH <ul style="list-style-type: none"> • \$0.99 (1% for transactions above \$500) 	No
In Office	Checks/Cash	#N/A	In Office	None	#N/A

moulton niguel water district

Contact Us: For 24/7 emergency service, please call (949) 431-2500. Pay Your Bill: Pay your bill, sign up for a bill, and view your account information.

Navigation: About, Customers, Community, Conservation, Departments, News & Publications, Water and Wastewater

Payment Options

CATEGORIES: BILLING, CUSTOMERS

You have several options for paying your water bill:

NEW! Sign Up for MyWater MNWD

Manage your water usage data by viewing your consumption and bill history, learn about our water conservation programs and rebates, and pay bills online at your convenience, for a nominal fee. Here's how to get started:

1. Download the app from the Google Play or Apple Store, or visit us online at mywater.mnwd.com
2. Register with your MNWD account number and an email address
3. Manage your water usage and enjoy MyWater MNWD!

MyWater MNWD is a separate service from e-Bill and Auto Pay. Registering for MyWater MNWD will not affect your e-Bill account in any way and will not have any effect on your billing preferences (paper or paperless). If you'd like to sign up for paperless billing, please sign up for e-Bill, and if you'd like to sign up for MNWD's Auto Pay program while still receiving paper bills, please sign up for Auto Pay. More details are available below.

*Please note that MyWater MNWD does not currently provide an AutoPay option. For more information on AutoPay options, please see below.

Sign Up for e-Bill. It's Paperless and Free.

Enroll in e-Bill today and you'll benefit from the convenience of receiving your water bill electronically and paying for your water and sewer services online. You receive your bill and our newsletter online. Payments can be made on a monthly basis from your checking or savings account, or they can be automatically withdrawn from an account on file. To activate autopay on your e-Bill account, you must enroll in the Auto Pay option on the e-Bill site. **Once you enroll in e-Bill, you will no longer receive a paper bill in the mail. To sign up or to pay your e-Bill online, please click here.** (This is a third party website, and it is not managed/owned by MNWD.)

If you experience any difficulties, please contact the Billing Department at (949) 448-4050.

Already Signed Up for e-Bill?
Click here to log on to your account.

By Credit Card

Credit Card payments are available through a third-party service via the internet or telephone. There is a convenience charge for this service.

Pay your bill, day or night, with an ATM debit or credit card displaying any of the following logos: (American Express, MasterCard or Visa). There is a service fee of \$3.95 for processing. You will be charged the convenience fee each time you use this service. The full amount of the fee is passed to Official Payments as the provider of this service.

To make a payment by phone, please call toll-free (877) 851-1957

To make a payment by computer, the website address is <https://www.officialpayments.com>.

By Mail

Mail your water bill payments stub along with your check in the courtesy reply envelope provided with your bill. The payment mailing address is as follows:

Moulton Niguel Water District
P.O. Box 30304
Laguna Niguel, CA 92607

In Person

Walk-in payments may be made at the Payment Office at the MNWD Main Office located at 27500 La Paz Road, Laguna Niguel, CA, 92677. Office hours are 8 a.m. to 5 p.m., Monday - Friday.

For payments after hours or on weekends and holidays, a drop box is conveniently located in the parking lot at the MNWD Main Office. Payments received in the drop box will be processed on the next business day. Please do not use the drop box for cash payments.

Auto Pay

Save time and money by enrolling in MNWD's Auto Pay program. You will continue to receive a monthly paper statement showing your water usage and the amount the District will debit from the bank account on file. Your statement will also include a notation of the date, approximately 15 days after the billing date, in which time your payment will be debited from the bank account on file.

***Please note - If you are enrolled in electronic billing service, please select the Auto Pay option on the e-Bill site. Enrolling in both options could result in your payment being deducted twice.**

If you have questions regarding your bill amount, please contact our Billing Department at (949) 448-4050 before the payment is debited from your bank account. Please keep in mind that it may take up to one month to activate Auto Pay. Please continue to make payments until you receive a bill with "AUTO PAY" displayed on your bill. To apply for Auto Pay, please complete the form below.

With AutoPay, your payments can be deducted directly from your bank account. If you are interested in signing up for Auto Pay, please complete the application below.

Auto Pay Application

When Is Your Bill Due?

Your bill is due on or before the due date indicated. If not paid by the due date, water and sewer service may be discontinued without further notice. Prior to service discontinuation, when it is necessary to send a reminder of a past due balance, a \$15 late notice fee will be charged to your account. If service is discontinued for non-payment, it will be restored only after all charges and reconnection fees have been paid. The reconnection fee is non-refundable. You may also be required to pay a deposit.

To make sure that your water bill is processed promptly, please complete the following:

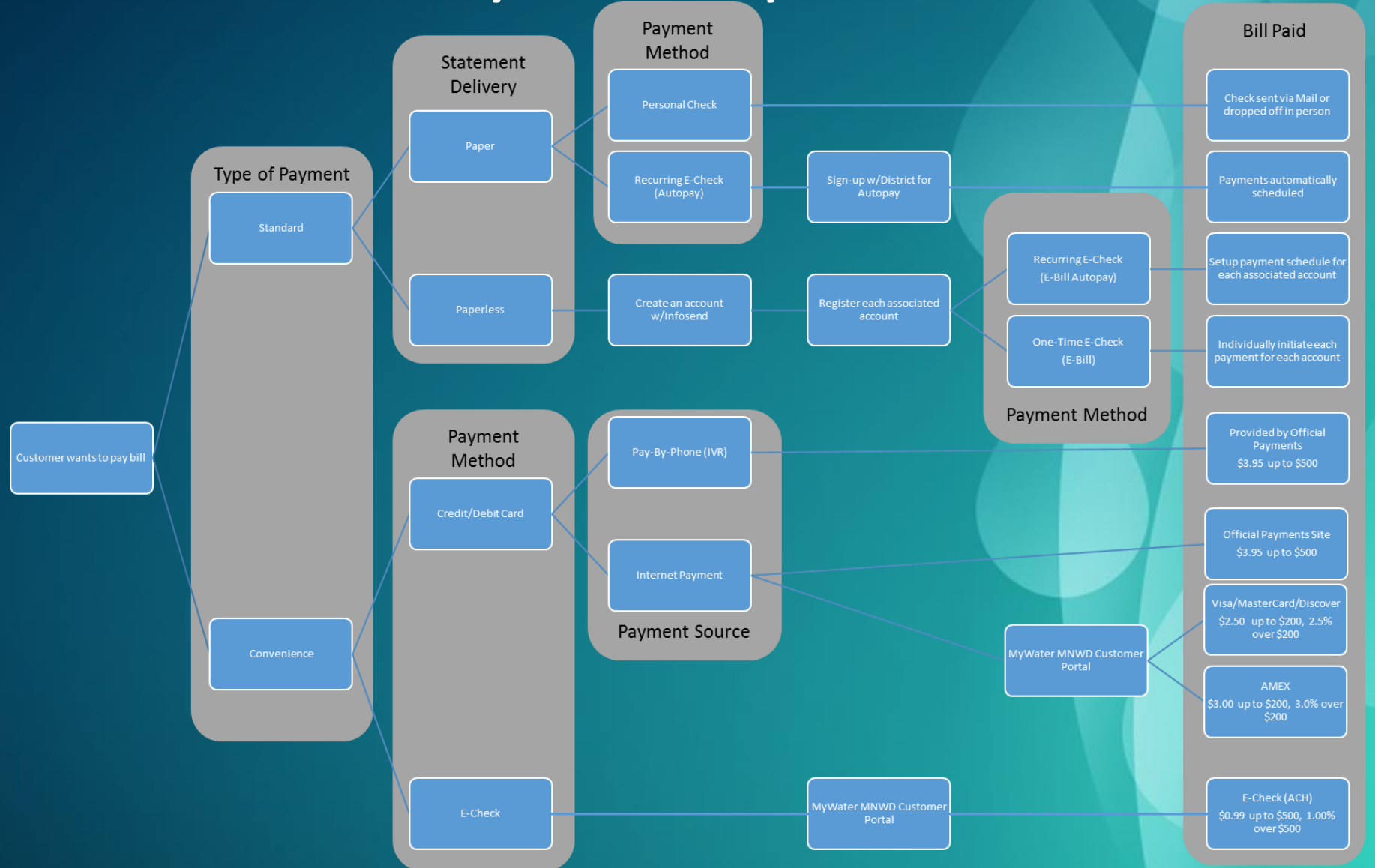
- Use a pen with blue or black ink.
- Make sure you pay above amount due. If different than bill amount.
- Only checks or money orders will be accepted by mail.
- Write the account number on your check or money order.
- Place the payable person of the bill stub and payment in the return envelope. Please do not staple or tape any of the paperwork.
- Cash payments should be made at the Main Office during normal business hours (8 a.m. to 5 p.m., Monday - Friday)

If you are unable to pay your bill by the due date, please call the Billing Department at (949) 448-4050 to discuss payment arrangements.

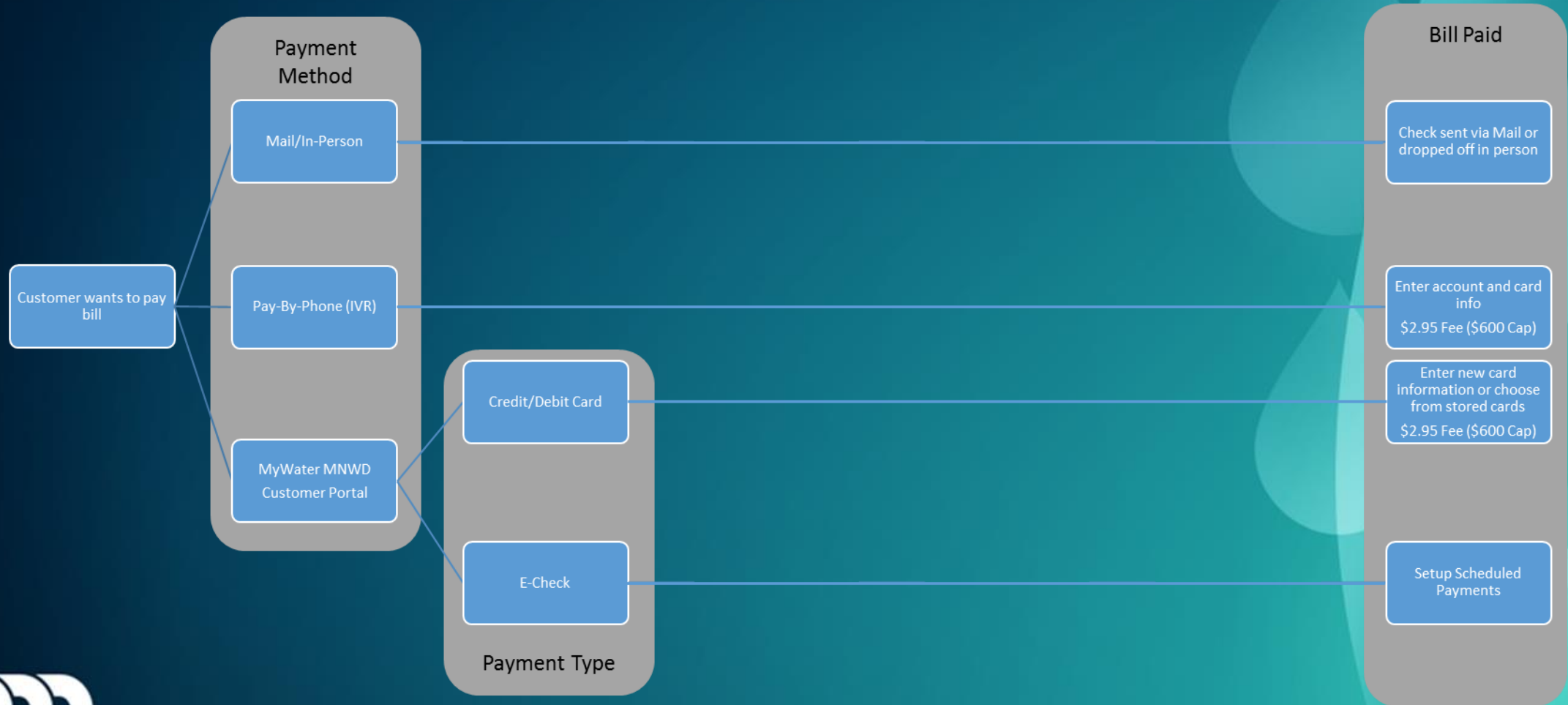
Tags: payments

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Current Bill Payment Options



Proposed Bill Services Solution

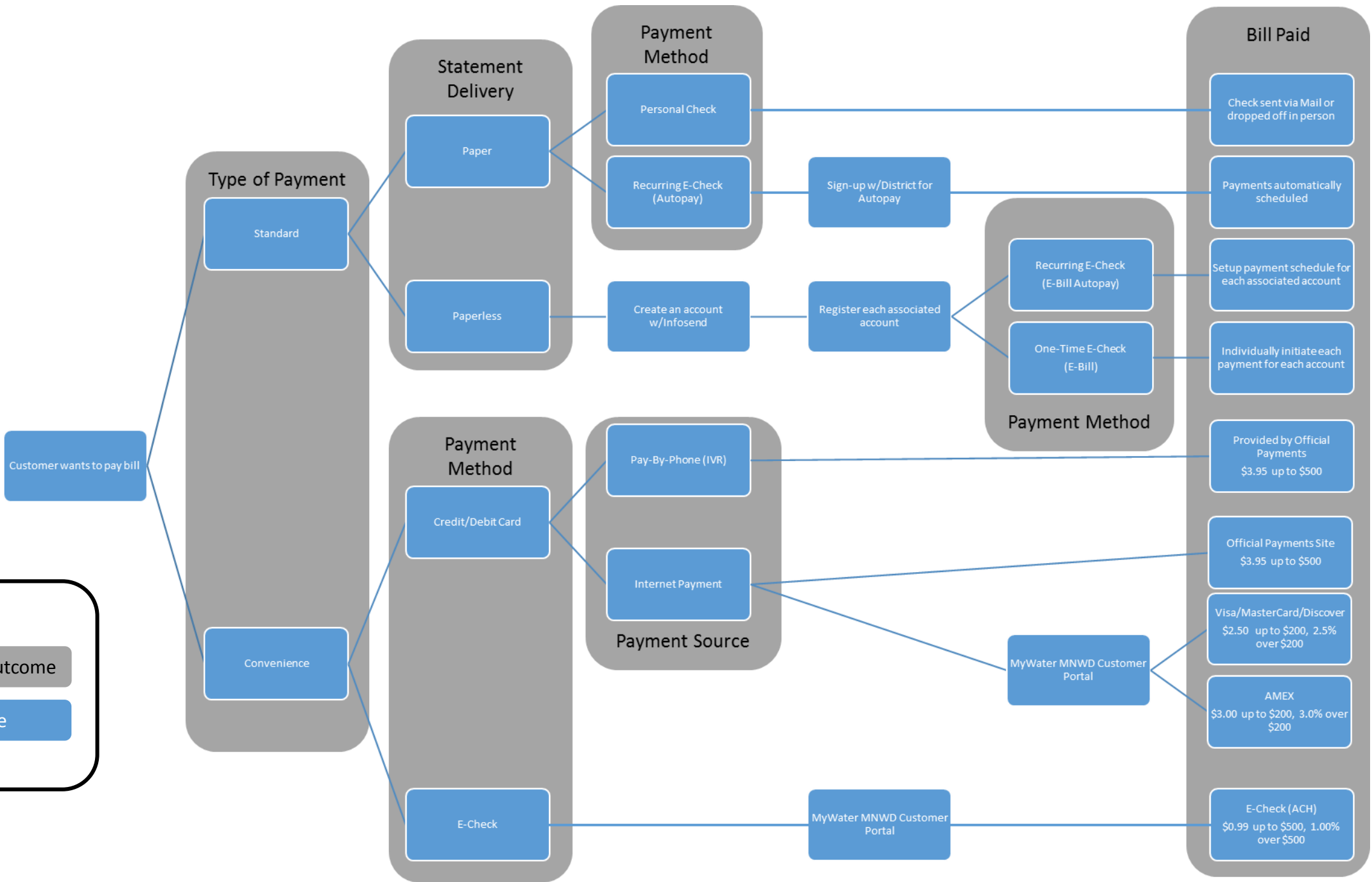
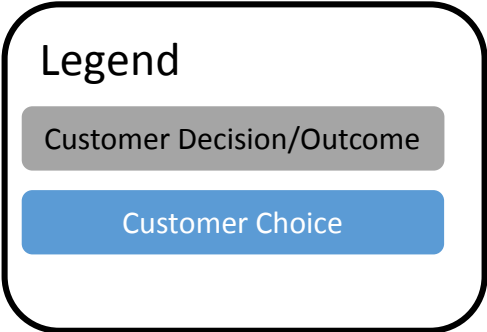


Proposed Bill Services Solution

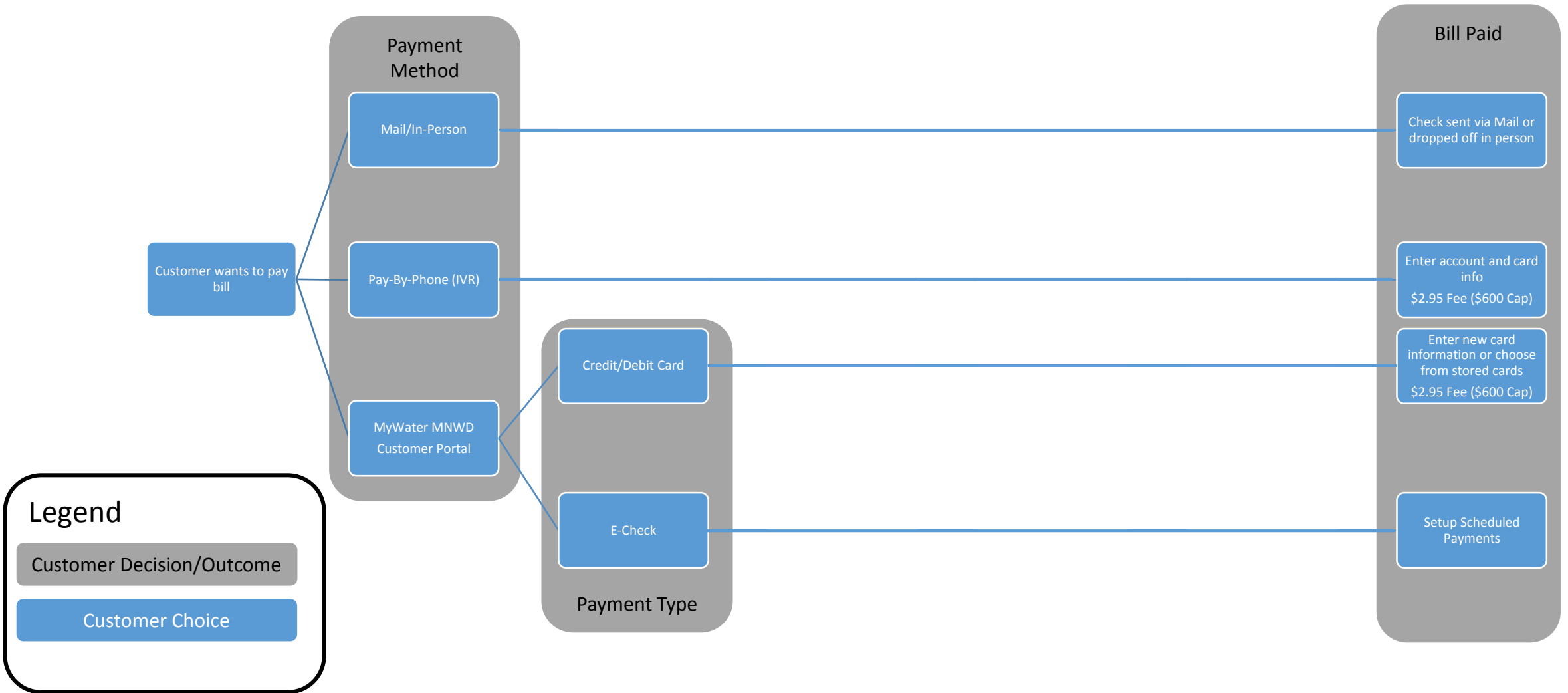
- Simplify customer payment options
- Direct customers toward District content
- Minimize customer impacts from transition
 - Extensive outreach to all customers
 - “Back-end” migration of payment profiles
 - Customers can update preferences at their convenience

Staff Recommendation

- Bill Print and Mail Services
 - Award service agreement to Infosend, Inc.
 - Print and mail hard-copy bills
 - Distribute and archive electronic bills
- Electronic Payment Processing Services
 - Award service agreement to Paymentus
 - Consolidate payment options for customers
 - Reduce customer fees for electronic payments
 - Reduce administrative costs
- Simplify customer billing experience



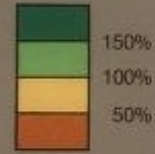
Proposed Bill Services Solution



Percent of Average Precipitation and Snowpack

Oct 1, 1975 - Sep 30, 1976

Precipitation in Percent of Average



Percent of Average Precipitation and Snowpack

Oct 1, 1976 - Sep 30, 1977

Precipitation in Percent of Average



THE FUTURE OF WATER MANAGEMENT

MISSION: PROVIDING TOOLS AND ANALYTICS TO SUPPORT WATER MANAGERS IN MEETING THEIR RELIABILITY OBJECTIVES

Snowpack in Percent of Average
April 1, 1976 and April 1, 1977

Watershed	1976	1977
1. Trinity	58%	35%
2. Upper Sacramento	46%	25%
3. Feather	26%	21%
4. Yuba	42%	31%
5. Truckee	41%	27%
6. American	32%	27%
7. Tahoe	36%	29%
8. Cosumnes	20%	26%
9. Carson	47%	31%
10. Mokelumne	31%	22%
11. Stanislaus	28%	21%
12. Walker	26%	23%
13. Tuolumne	34%	23%
21. Kern	25%	19%

Patrick Atwater, CaDC Project Manager

The two maps show deviations from average precipitation and snowpack, illustrating the pattern of drought.

California Data Collaborative Overview

- Created Jan 2016 by water agencies for water agencies
- Goal: Leverage modern data science to ensure water reliability
- Powered by 501(c)3 Public Data Infrastructure Non Profit

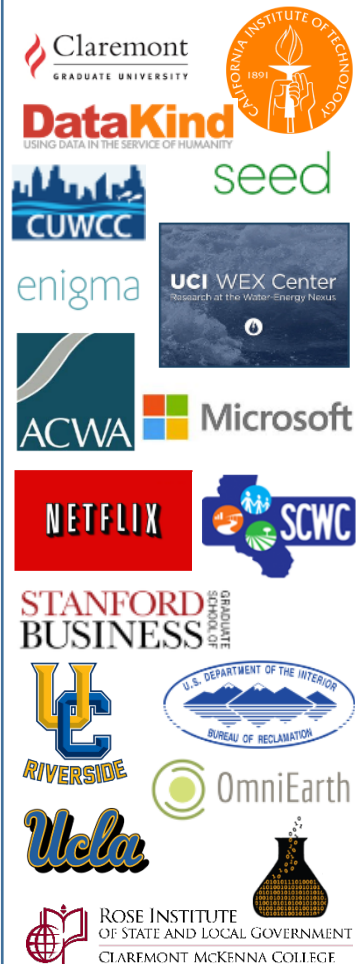
Founding Members:



New Members:



Partners:

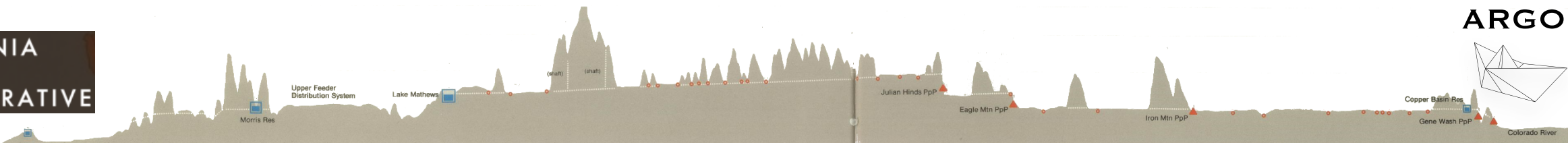
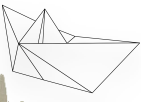


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CaDC Objectives:

1. Model and inform statewide conservation policy
 - Unbiased technical analysis
 - No formal water policy position
2. Integrate data across utilities
 - Enable meaningful comparisons of programs & usage patterns
3. Data-driven demand management
 - Evaluate effectiveness of demand management programs
 - Impact of cost incentives, customer preferences, outreach
4. Support revenue stability
 - Develop tools to support rate analysis
 - Illustrate impact prospective rate/shifts could have on customers and agency revenues



1. Model & Inform Statewide Water Use Efficiency Policy

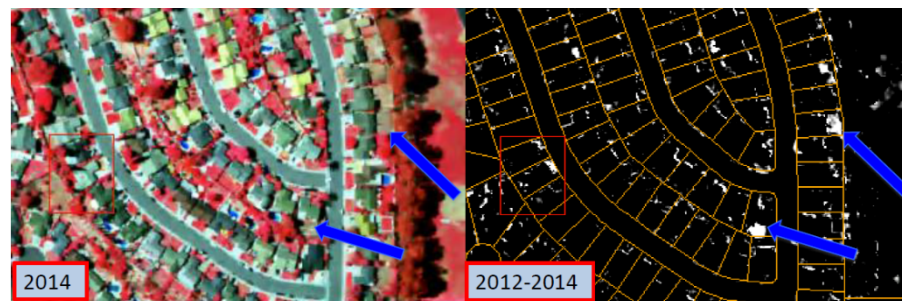
- Analyzed Gov. Brown's May 2016 Long-Term Water Use Efficiency framework
- Outdoor imagery analysis to develop outdoor landscape area estimates
- Collaboration with:



WATER
FOUNDATION

Claremont
GRADUATE UNIVERSITY

*The Graduate University of
The Claremont Colleges*



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Colorado River

CALIFORNIA
DATA
COLLABORATIVE

Morris Res

Upper Feeder
Distribution System

Lake Mathews

(snart) (snart)

Julian Hinds PpP

Eagle Mtn PpP

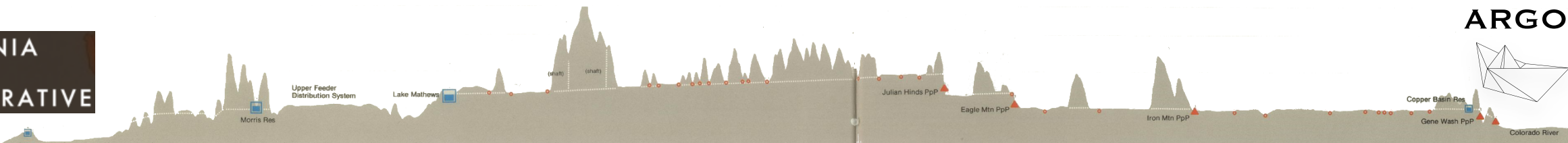
Iron Mtn PpP

Copper Basin Res

Gene Wash PpP

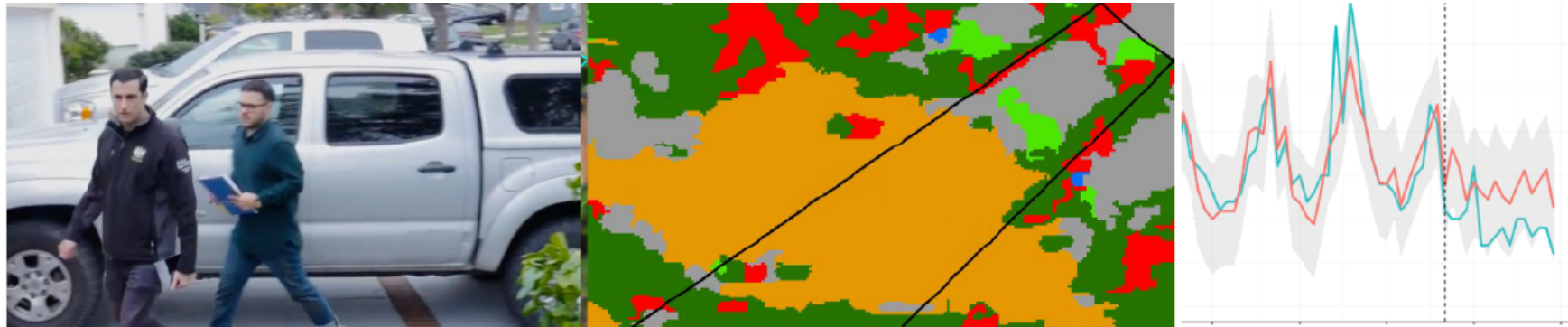
2. Integrate Data Across Utilities

- Developed a cloud-based secure infrastructure
 - Data “clean up”
 - Identified and evaluated gaps
 - Automated monthly use/billing data uploads
- Data can be easily shared with researchers
 - Requires GM’s signed consent
- Partners’ data incorporated into all dashboards and tools



3. Data-Driven Demand Management

- Turf-grass rebate program evaluation
 - Analysis of customer participation and cost effectiveness
 - Aerial imagery analysis of spill-over participation
 - Partnering with CivicSpark Water Fellows for customer preference survey



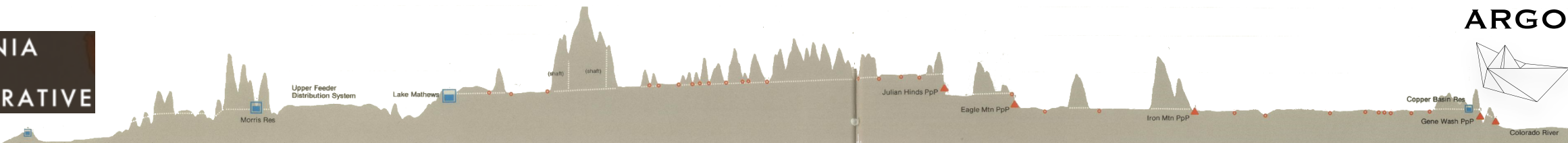
4. Support Revenue Stability

- Develop interactive rate modeling tool with MNWD for 2017 rate structure
 - Changes in revenue as compared to existing structure
 - Enables side-by-side comparison of Tiered Rates vs. Flat Rates vs. Budget Based Rates structures
 - Highlights which customer classes would be impacted by proposed changes



Accomplishments Jan 2016-April 2017

- Public data infrastructure developed
- Rates model deployed
- Modeled Statewide water use efficiency targets for the State
- Turf program econometric evaluation published
- Hosted CA Water Data Conference at Stanford
- Recognition:
 - White House 2016 Water Summit
 - Featured in Harper's Magazine
 - Participated in CA Senate Panel for open and transparent data re: SB272 (Hertzberg)
- Statistical analysis of water savings (ongoing)
- CivicSpark survey of outdoor water use attitudes (April-June)



FY 2017-18 CaDC Subscription Costs



SCUBA

Urban metered water use data integration

\$17.5k Less than 15,000 connections

\$35k Between 15,000 and 150,000 connections

\$70k Greater than 150,000 connections

Full technical working group access

Input into statewide efficiency work

Access to cutting edge data community

Access to research results

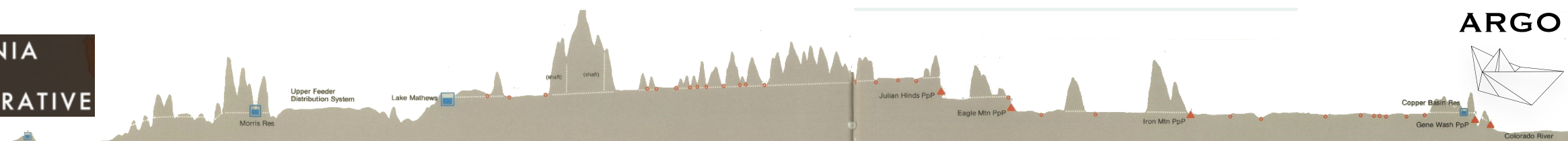
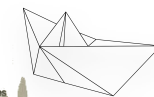
Receive landscape area data by parcel


Flagship CaDC Analytics Deployment

Automate data standarization pipelines

Option to reshare data with academics

ARGO





*“The people of California have not lost their pioneering spirit
or their capacity to meet life’s challenges.”*

– Jerry Brown

Contact:

Patrick@argolabs.org



moulton niguel water district

Debt Management Policy

Engineering and Operations Board Meeting

May 15, 2017

Background

- SB 1029 effective starting January 1, 2017
 - All new debt issuances
- Requires Comprehensive Debt Policy
 - Purpose
 - Types of Debt
 - Relationship of Debt to CIP
 - Policy Goals
 - Internal Control Procedures

Preparation

- Incorporates best practices
- Prepared in collaboration w/ PFM & Mike Bell
- Complies w/ SB-1029
- Applies to all bonds & loans
- Includes Capital Financing Policy into policy
- Codifies current operating practices

Timeline

- Discussion Today
- Incorporate Feedback
- Policy Adoption at June Board Meeting

MOULTON NIGUEL WATER DISTRICT
NET POSITION
As of March 31, 2017

	Reserve Policy	(Unaudited)		
	Target	Balance	Net Change	Balance
	Target	3/31/2017	Net Change	6/30/2016
Adopted Reserve Targets ¹				
Designated for Self Insurance Reserve	\$ 250,000	\$ 252,772	\$ (1,987)	\$ 254,759
Designated for Rate Stabilization	13,250,000	13,664,170	6,686	13,657,484
Designated for Emergency Reserves	35,510,000	35,510,000	-	35,510,000
Designated for Operating Reserves ²	15,820,000	22,070,162	(4,246,958)	26,317,120
Total Adopted Reserve Targets	\$ 64,830,000	\$ 71,497,103	\$ (4,242,260)	\$ 75,739,363
	FY 16/17 Capital			
	Budget ³			
Designated for FY 16-17 Capital Projects				
Designated for Replacement and Refurbishment	\$ 27,144,426	\$ 18,923,512	\$ 9,193,747	\$ 9,729,765
Designated for Water Supply Reliability	8,861,074	3,133,878	3,133,878	-
Designated for Planning and Construction	9,613,031	8,840,571	(19,650,898)	28,491,469
Total Designated for FY 16-17 Capital Projects	\$ 45,618,531	\$ 30,897,961	\$ (7,323,273)	\$ 38,221,234
Other amounts				
Designated for Water Efficiency (WBBRS) ⁴		\$ 7,883,313	\$ 2,724,993	\$ 5,158,320
Restricted for Capital Facilities (Projects)		267,368	(2,365,579)	2,632,947
Net Investment in Capital Assets ⁵		305,146,227	12,742,167	292,404,060
Total Other amounts		\$ 313,296,908	\$ 13,101,581	\$ 300,195,327
Total Net Position		\$ 415,691,972	\$ 1,536,048	\$ 414,155,924

Note: Totals may not sum due to rounding.

1. Board designated balances represent available cash in that fund.

2. General Operating Reserves include the unrestricted, undesignated balance, and other general District accrued cash flows. This amount includes the remaining total cash balance of \$26,929,883.

3. FY 16-17 Budget also includes \$950,990 for capital expenses in Fund 6, bringing the total CIP budget to \$46,569,520.

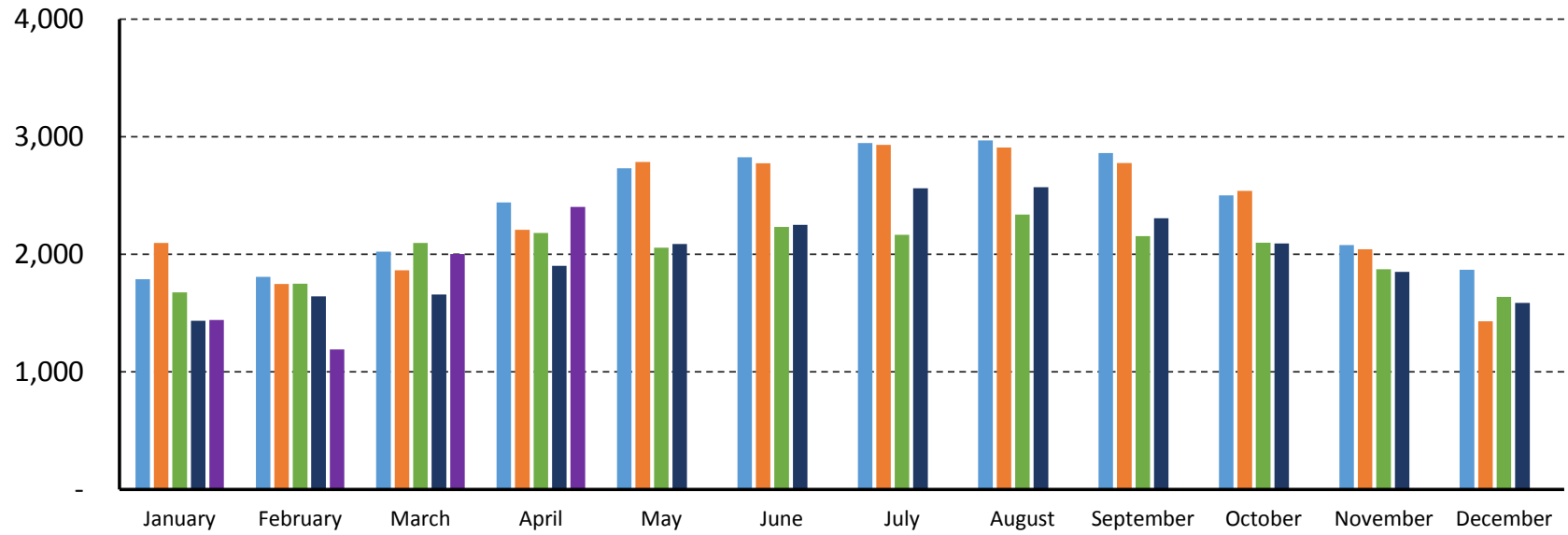
4. In addition to realized expenditures, there is approximately \$1,923,497 in project commitments, reducing the available WBBRS reserve balance to \$5,959,816.

5. Net Investment in Capital Assets calculated as follows:

Total capital assets	\$ 393,537,214
Less capital related debt	(89,104,114)
Add deferred charges related to debt	713,127
Total Net Investment in Capital Assets	\$ 305,146,227

AF

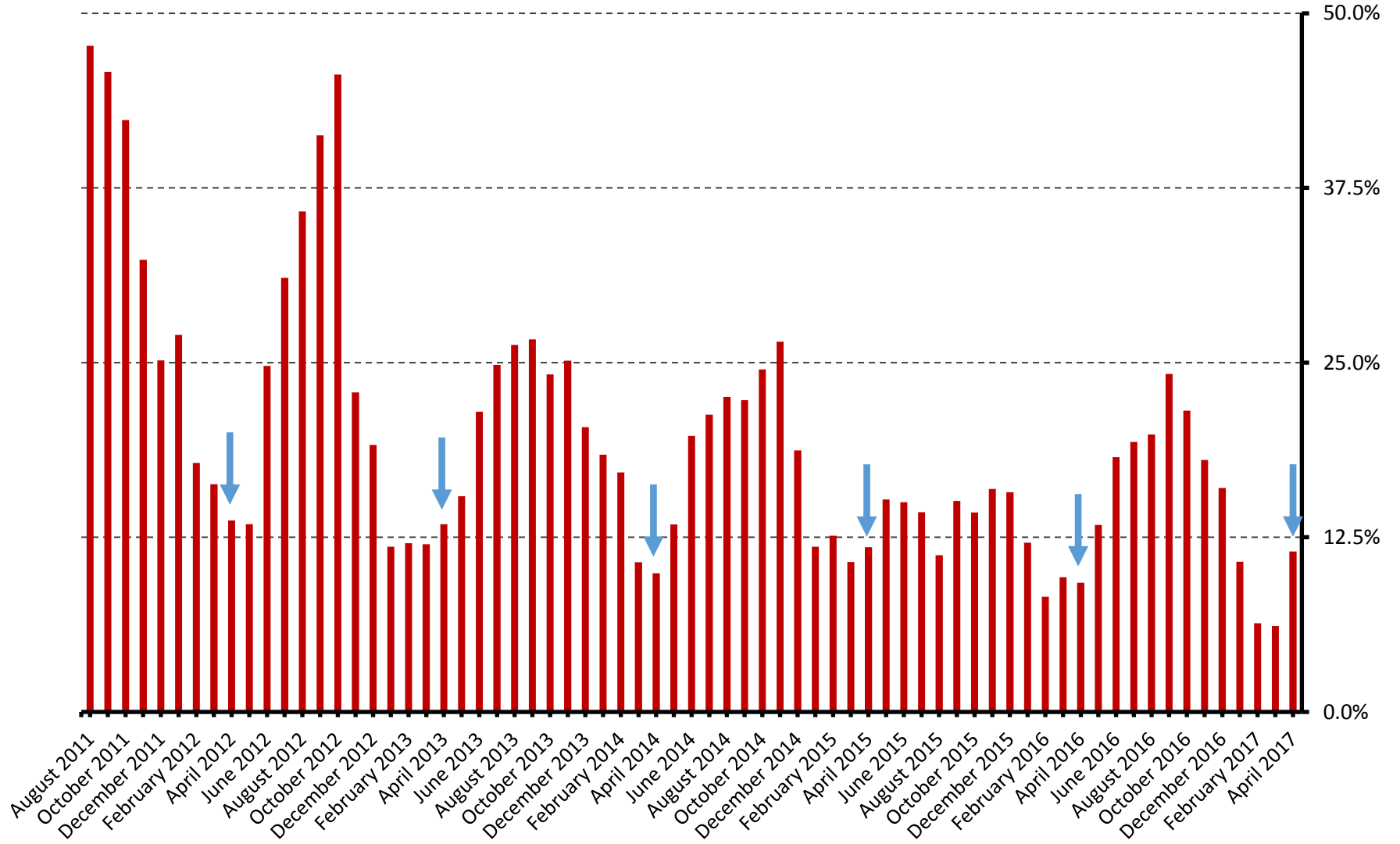
Historical Monthly MNWD Water Purchases & Evapotranspiration



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	5.77	6.77	5.97	4.51	3.23	2.75	1.89		
2017	1.96	1.75	4.24	5.17										

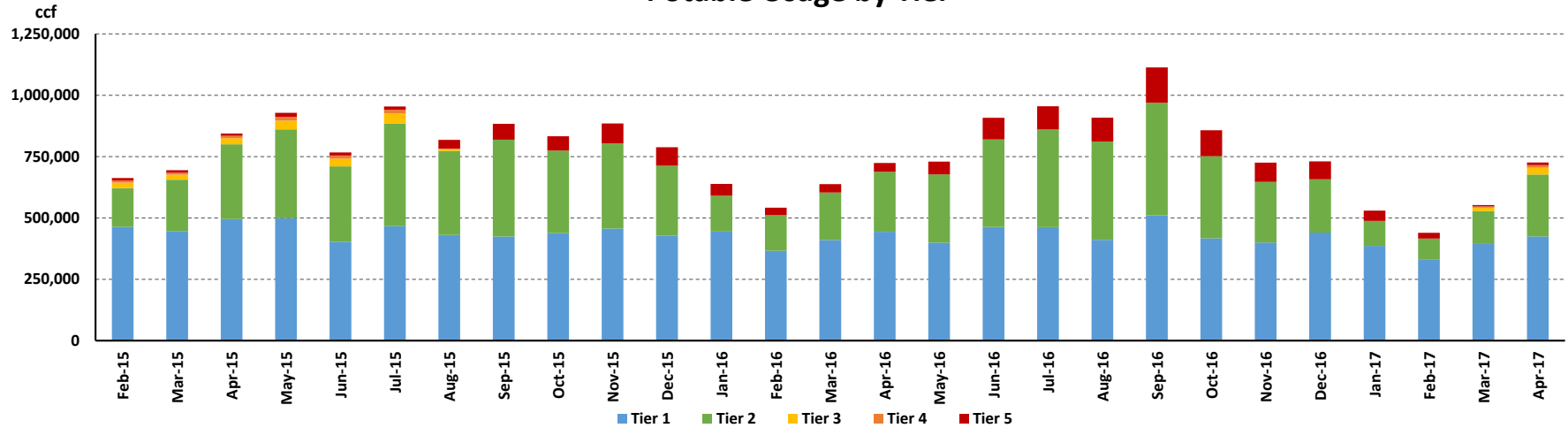
May 15, 2017

Single Family Residential Accounts Above Tier 2



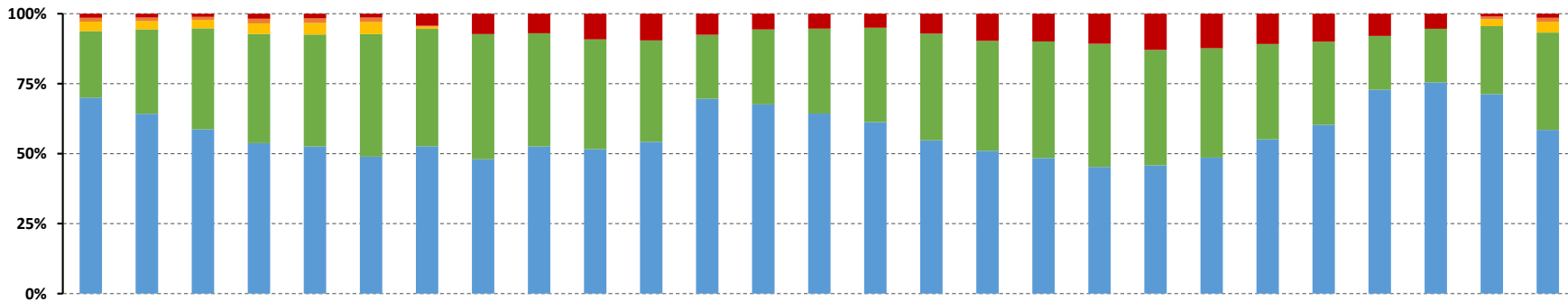
May 15, 2017

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	202	218	224	331	243	180	167	96	54	56	112
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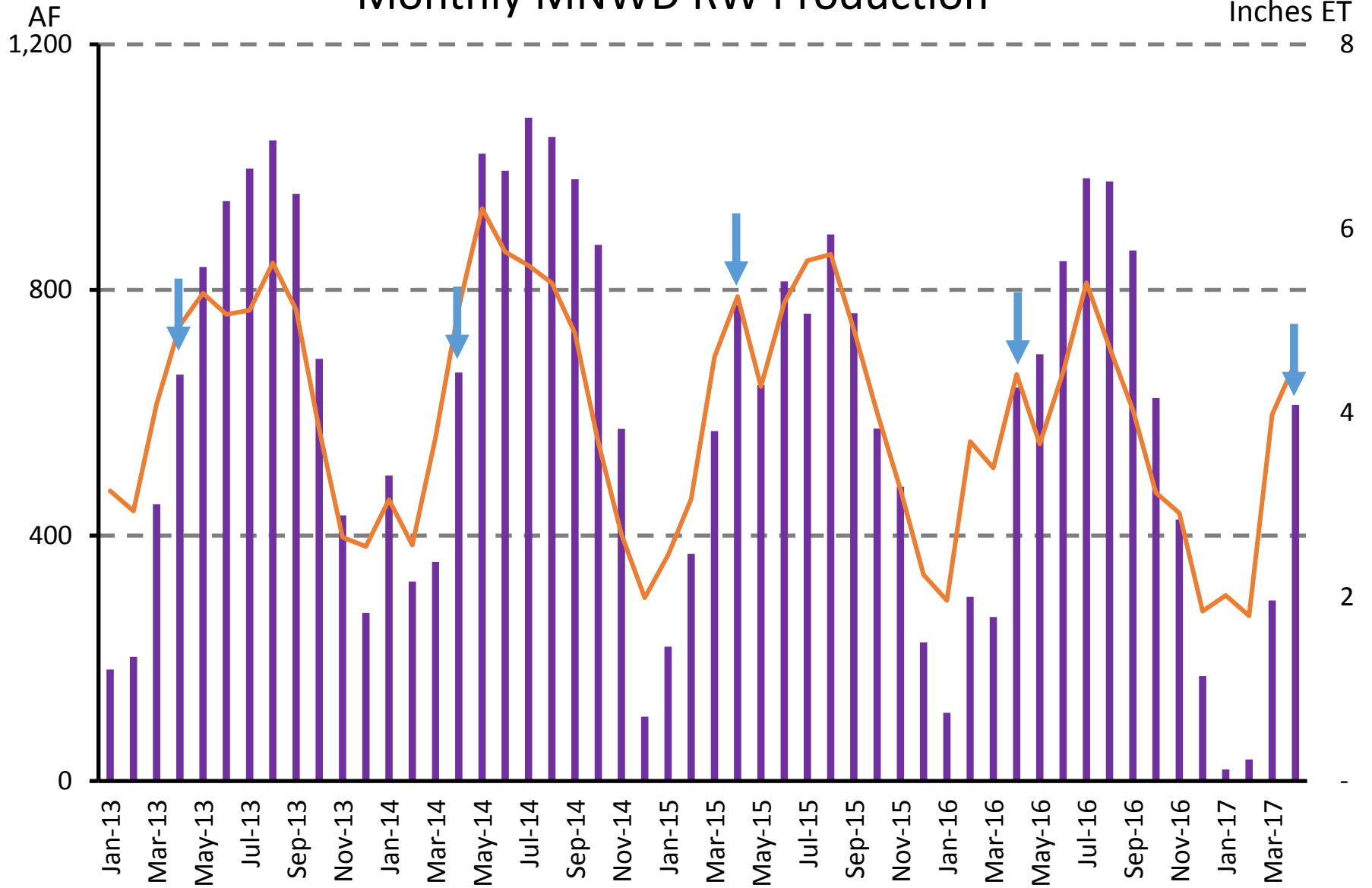
Percent Potable Usage by Tier



	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	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
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%	9.7%	9.9%	10.7%	12.9%	12.4%	10.8%	10.0%	7.9%	5.4%	1.0%	1.5%
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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.5%
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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	3.8%
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%	39.3%	41.6%	44.0%	41.2%	39.1%	34.1%	29.7%	19.3%	19.2%	24.3%	34.8%
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%	51.0%	48.4%	45.2%	45.8%	48.6%	55.1%	60.3%	72.8%	75.4%	71.3%	58.5%

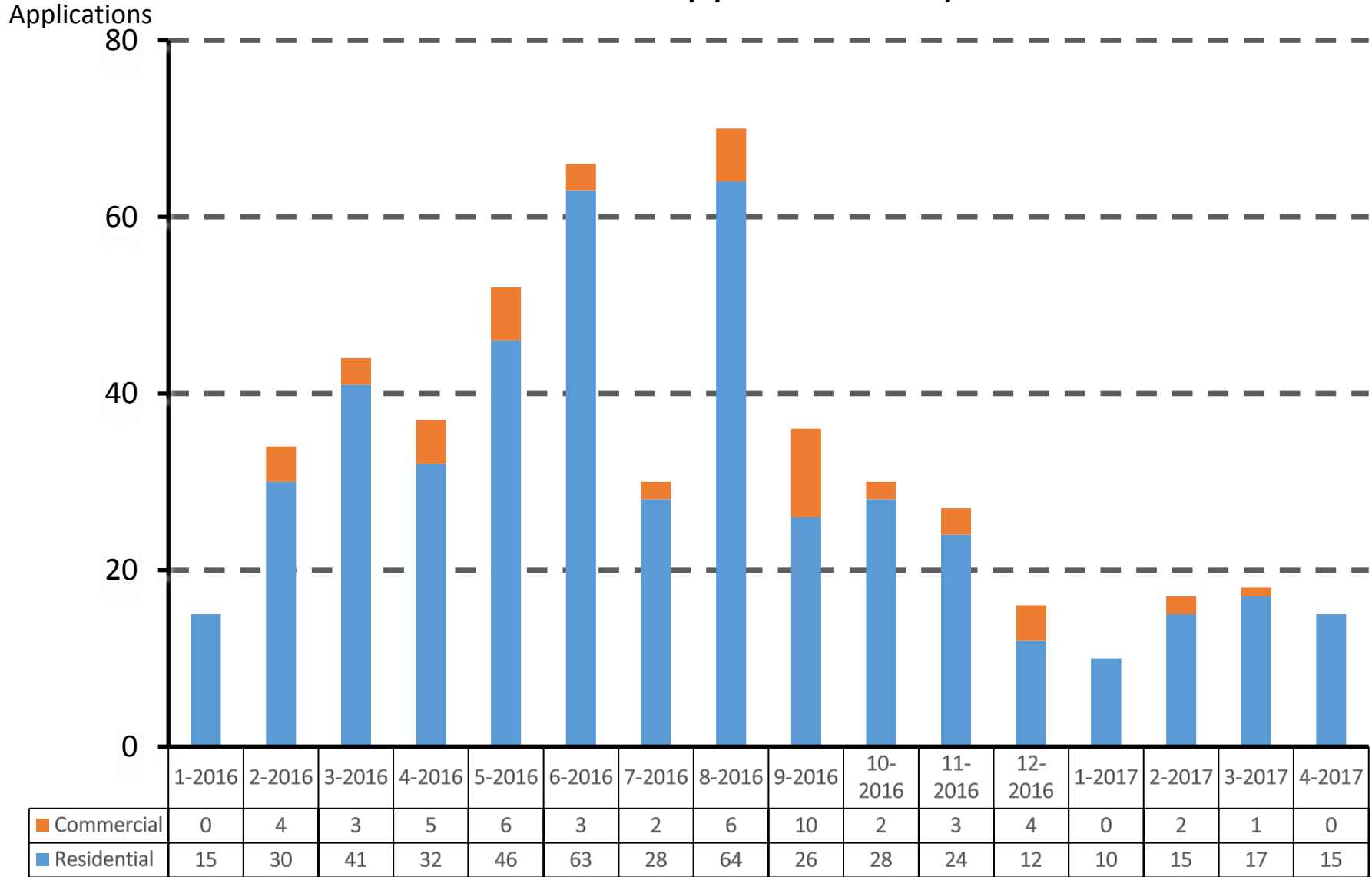
Tier 1 Tier 2 Tier 3 Tier 4 Tier 5

Monthly MNWD RW Production



May 15, 2017

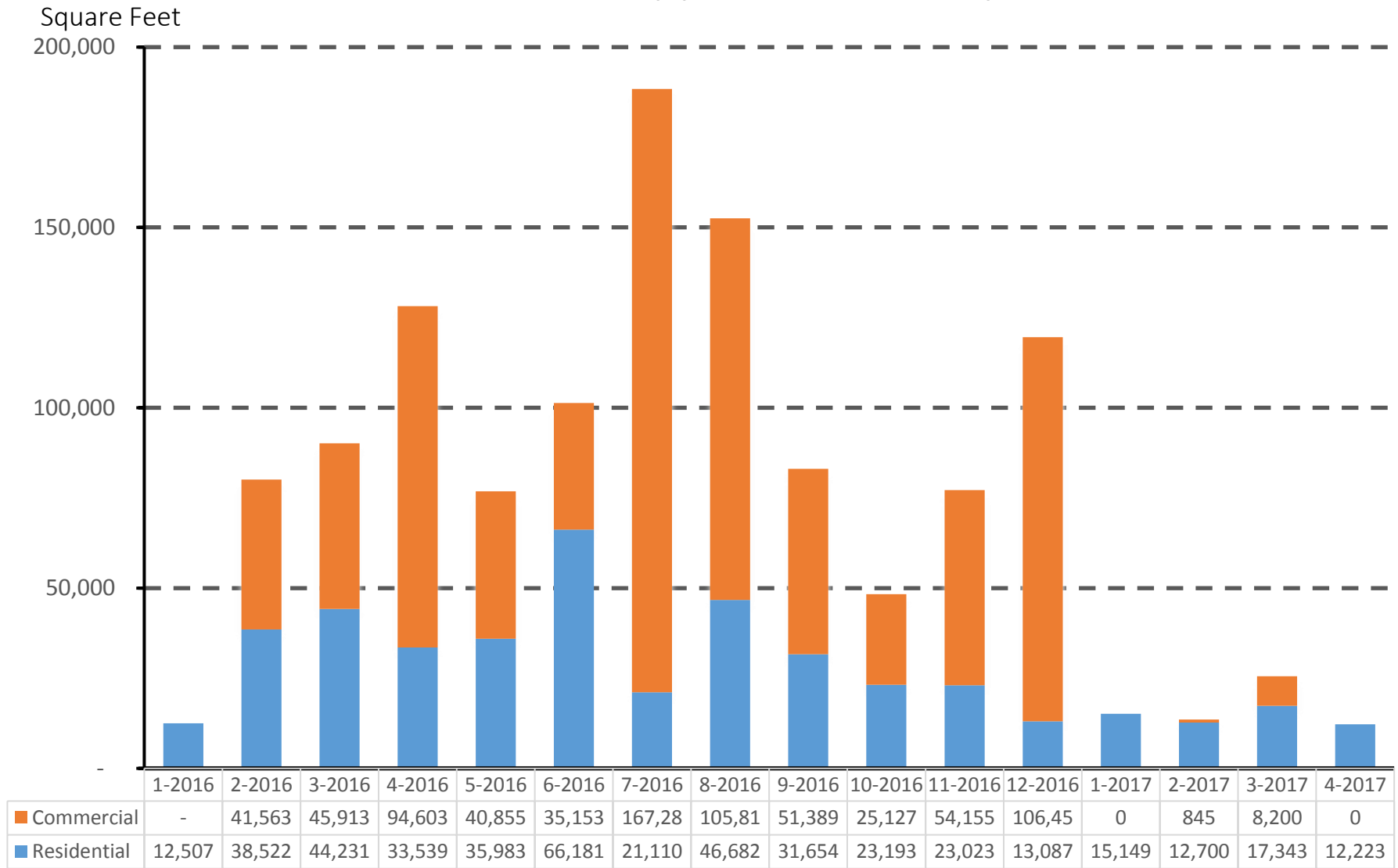
Total Turf Removal Applications by Month



■ Residential ■ Commercial

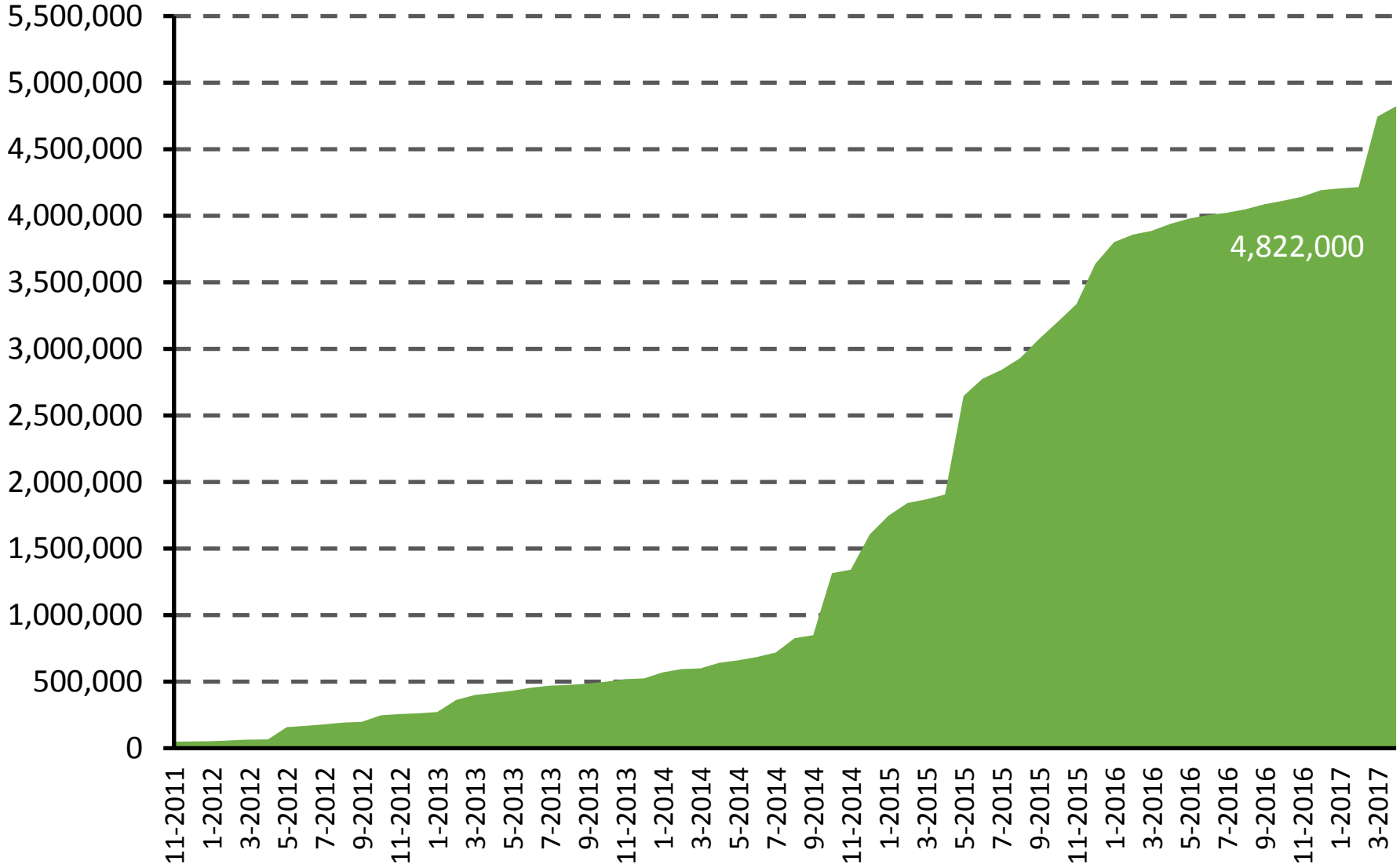
May 15, 2017

Total Turf Removal Application Size by Month



Square Feet

Total Turf Removed



May 15, 2017