

Moulton Niguel Water District

Period Ending
September 30, 2015



SECTION 1

Consolidated Information

SECTION 2

Account Profile

SECTION 3

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 the 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 Objectives

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

Liquid Fund: 90-day Treasury bills.

Limited Maturity Fund: Bank of America Merrill Lynch 1-3 Year US Treasury/Agency Index.

Operating Reserve Fund: Bank of America Merrill Lynch 1-10 Year Government Index..



Moulton Niguel Water District Consolidated

September 30, 2015

COMPLIANCE WITH INVESTMENT POLICY

This portfolio is a consolidation of assets managed by Chandler Asset Management and assets managed internally by Client. Chandler relies on Client to provide accurate information for reporting assets and producing this compliance statement.

Category	Standard	Comment
Treasury/Agency issues	No Limit	Complies
Banker's Acceptances	≤40%; 180 days	Complies - 0.0%
Commercial Paper	A1/P1	Complies - 2.0%
Max. maturity < 270 days	25% maximum	Complies
Repurchase Agreements	≤10%; ≤1 year	Complies
Rev. Repo Agreements	≤10%; ≤90 days	Complies - 0.0%
Time CDs	110% collateral over \$100,000 or insured	Complies - 0.0%
Negotiable CDs	30% max; ≤2 yrs	Complies - 0.0%
Medium Term Notes	"A"-rated; 30% max	Complies - 25.8%
Mutual Funds	≤20%	Complies - 0.4%
LAIF	Not used by outside adviser; \$50 million maximum imposed by LAIF	Complies
Mortgage Pass Through, including CMOs and ABS	"AA"-rated; 20% Maximum	Complies - 8.5%
Money Market Funds	"AAA"-rated or SEC reg.; 20% Maximum	Complies
Inverse floaters, range notes	Prohibited	Complies
Interest only strips	Prohibited	Complies
Zero interest accruals	Prohibited	Complies
Per issuer max	5% (except gov'ts)	Complies
Modified duration	+/- 20% of 1-10 Year benchmark duration	Complies - 3.09
% invested less than 2 years	≥10%	Complies - 21.9%
% invested beyond 5 years	≤40%	Complies - 22.7%
Maximum maturity	10 years	Complies
Maximum maturity of corp.	5 years	Complies



Portfolio Characteristics

Moulton Niguel Water District Consolidated

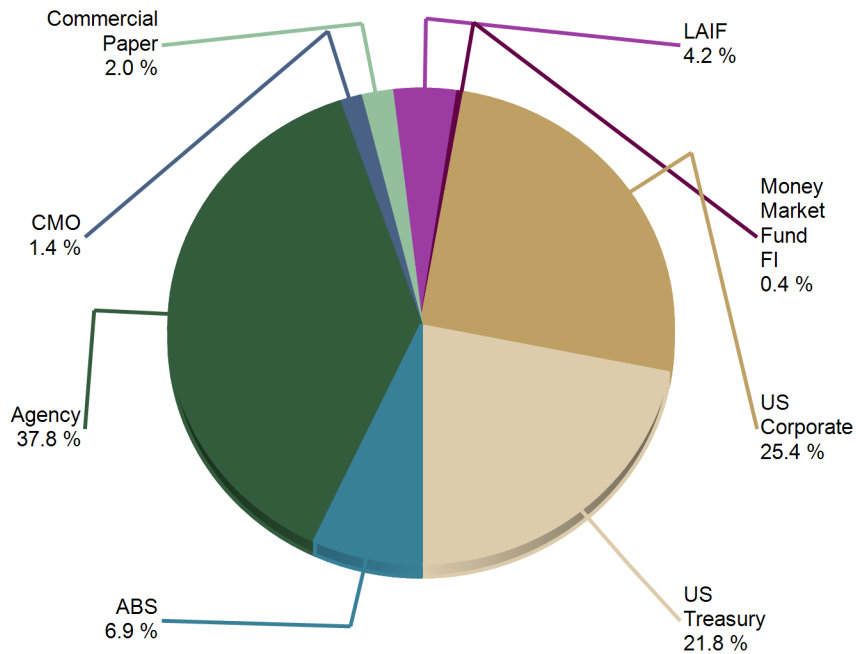
	09/30/2015	06/30/2015
	Portfolio	Portfolio
Average Maturity (yrs)	3.34	3.04
Modified Duration	3.04	2.74
Average Purchase Yield	1.82 %	1.66 %
Average Market Yield	1.21 %	1.19 %
Average Quality**	AA/Aa1	AA/Aa1
Total Market Value	127,575,032	149,987,362



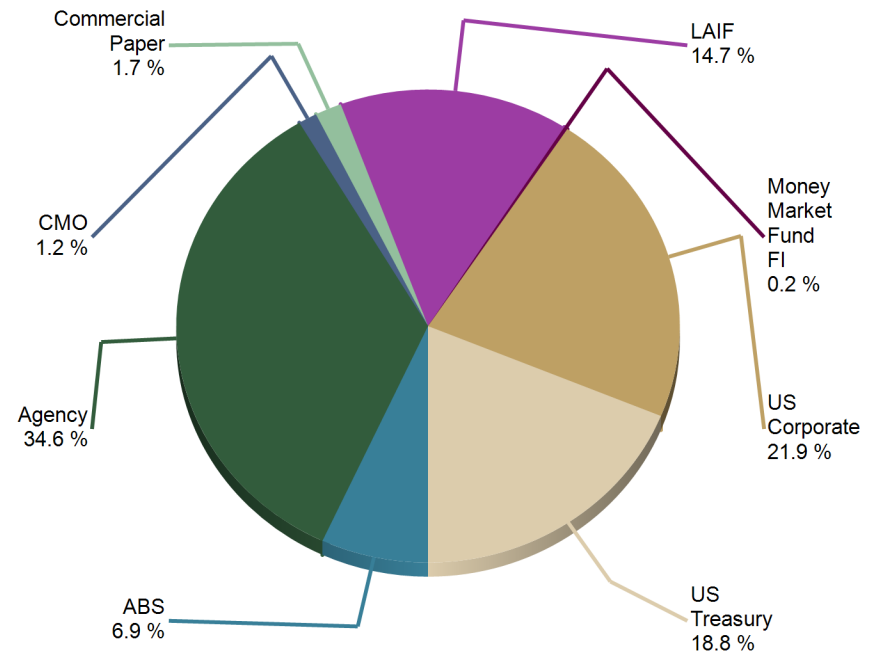
Sector Distribution

Moulton Niguel Water District Consolidated

September 30, 2015



June 30, 2015





Issue Name	Investment Type	% Portfolio
Government of United States	US Treasury	21.83 %
Federal Home Loan Mortgage Corp	Agency	10.55 %
Federal Home Loan Bank	Agency	9.94 %
Tennessee Valley Authority	Agency	6.66 %
Federal National Mortgage Association	Agency	6.59 %
Local Agency Investment Fund	LAIF	4.24 %
Federal Farm Credit Bank	Agency	4.03 %
John Deere ABS	ABS	2.28 %
Bank of Tokyo-Mit UFJ	Commercial Paper	2.01 %
Honda ABS	ABS	1.92 %
General Electric Co	US Corporate	1.69 %
Deere & Company	US Corporate	1.58 %
IBM Corp	US Corporate	1.54 %
ChevronTexaco Corp	US Corporate	1.53 %
Cisco Systems	US Corporate	1.43 %
Qualcomm Inc	US Corporate	1.42 %
Apple Inc	US Corporate	1.41 %
Federal Home Loan Mortgage Corp	CMO	1.41 %
Toyota Motor Corp	US Corporate	1.37 %
Bank of New York	US Corporate	1.31 %
Honda Motor Corporation	US Corporate	1.28 %
Charles Schwab Corp/The	US Corporate	1.28 %
JP Morgan Chase & Co	US Corporate	1.27 %
Intel Corp	US Corporate	1.23 %
Toyota ABS	ABS	1.15 %
JP Morgan ABS	ABS	0.98 %
US Bancorp	US Corporate	0.97 %
Oracle Corp	US Corporate	0.91 %
Paccar Financial	US Corporate	0.88 %
Coca Cola Co.	US Corporate	0.85 %
Google Inc	US Corporate	0.78 %
Pepsico Inc	US Corporate	0.76 %
Wal-Mart Stores	US Corporate	0.66 %



**Moulton Niguel Water District Consolidated
Account #43**

Issuer Report
As of 9/30/2015

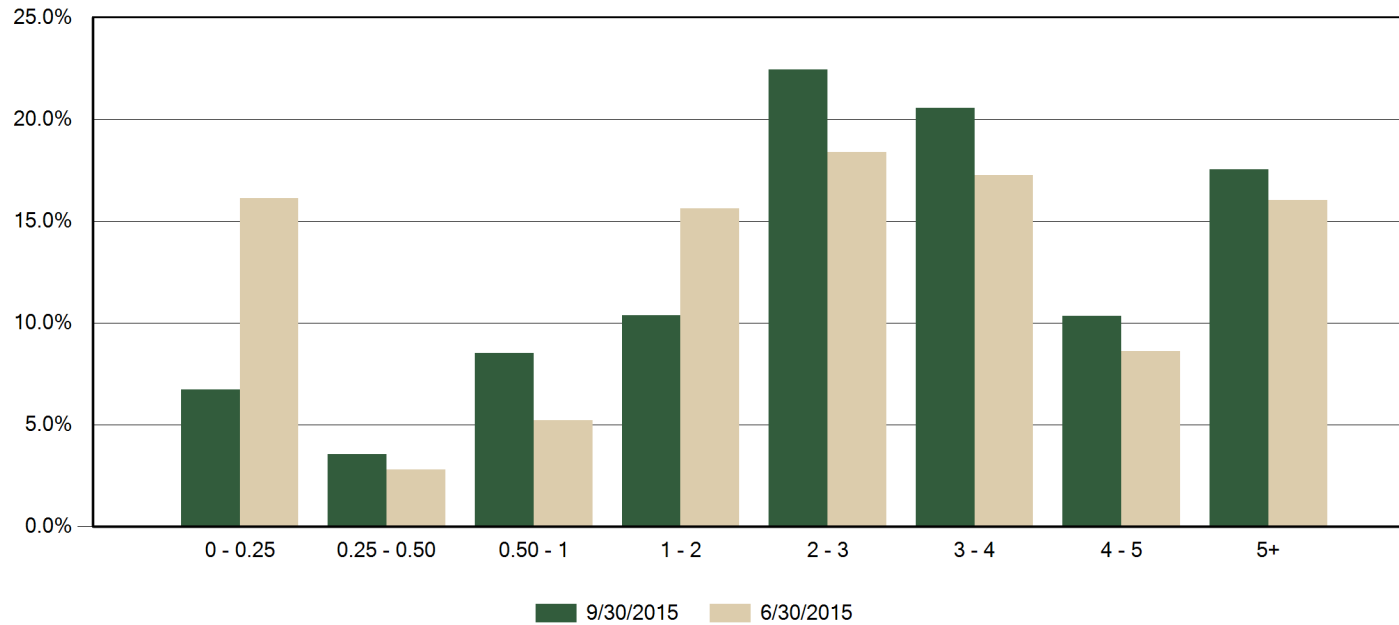
Issue Name	Investment Type	% Portfolio
HSBC USA Corp	US Corporate	0.62 %
General Electric ABS	ABS	0.60 %
Wells Fargo Adv Govt Money Market Fund	Money Market Fund FI	0.41 %
Wells Fargo Corp	US Corporate	0.31 %
Air Products & Chemicals	US Corporate	0.24 %
United Technology Corp	US Corporate	0.09 %
Total		100.00 %



Duration Distribution

Moulton Niguel Water District Consolidated

September 30, 2015 vs. June 30, 2015



	0 - 0.25	0.25 - 0.50	0.50 - 1	1 - 2	2 - 3	3 - 4	4 - 5	5+
9/30/15	6.7 %	3.6 %	8.5 %	10.4 %	22.4 %	20.5 %	10.3 %	17.5 %
6/30/15	16.1 %	2.8 %	5.2 %	15.6 %	18.4 %	17.2 %	8.6 %	16.0 %



SECTION 2

Account Profile



PORTFOLIO CHARACTERISTICS

Liquid Fund

	3-month T-Bills Benchmark* G001	Liquid Fund	
	9/30/2015	9/30/2015	6/30/2015
Portfolio book value	--	\$5,399,952	\$22,088,466
Market value	--	\$5,410,090	\$22,105,620
Average book yield	--	0.34%	0.29%
Average maturity (yrs)	0.16	0.00	0.00
Modified duration	0.16	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

	1-3 Year US Treasury/Agency Benchmark	Limited Maturity Fund	
	9/30/2015	9/30/2015	6/30/2015
Portfolio book value	--	\$26,989,254	\$30,794,467
Market value	--	\$27,004,033	\$30,897,417
Average book yield	--	1.49%	1.58%
Average maturity (yrs)	1.82	1.78	1.89
Modified duration	1.76	1.67	1.79
\$ change in value for 1% change in rates	--	\$450,967	\$553,064
% maturing within two years	56.7%	44.6%	43.0%
Average credit quality	AAA	AA/Aa1	AA/Aa1



PORTFOLIO CHARACTERISTICS

Operating Reserve Fund

	1-10 year Govt. Benchmark* G5A0	Operating Reserve Fund	
	9/30/2015	9/30/2015	6/30/2015
Portfolio book value	--	\$93,276,369	\$95,789,445
Market value	--	\$95,160,909	\$96,984,326
Average book yield	--	2.00%	2.00%
Average maturity (yrs)	3.93	3.98	4.10
Modified duration	3.65	3.59	3.67
\$ change in value for 1% change in rates	--	\$3,416,277	\$3,559,325
% maturing within two years	22.9%	9.5%	9.9%
Average credit quality	AAA	AA/Aa1	AA+/Aa1



SECTION 3

Economic Update



■ Federal Open Market Committee (FOMC)

- The FOMC left policy rates unchanged at its September meeting. In light of the weak September jobs report and the latest inflation reading, we believe the probability of a fed funds rate hike before year-end is still possible but has diminished and may cause the FOMC to wait until early 2016.

■ Labor Markets

- Job growth slowed in the last quarter. The unemployment rate fell to 5.1%; however, the participation rate fell to a historically low level and wage growth remains flat.

■ Inflation

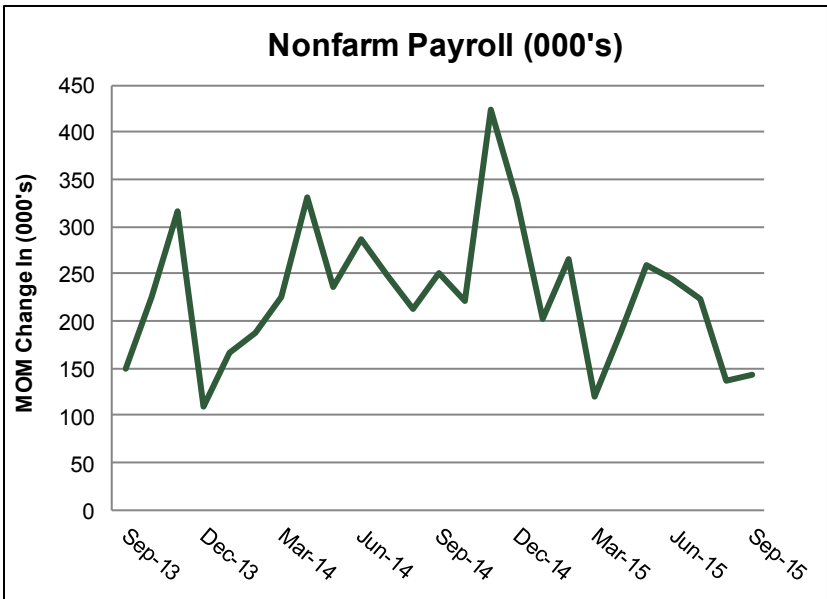
- Inflation remains benign as Core Personal Consumption Expenditures (PCE) remains below the Federal Reserve's 2% target.

■ Economic growth

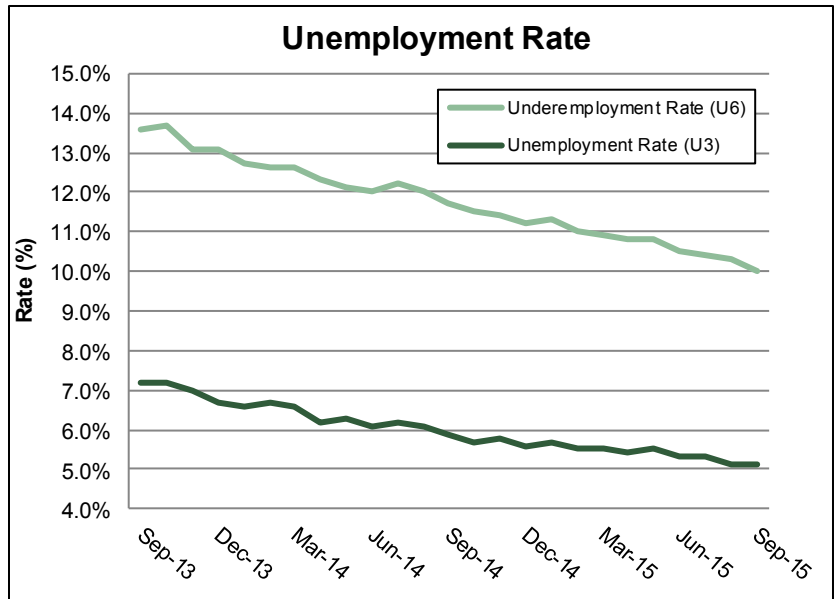
- The economy continues to grow at a moderate pace. Real annualized GDP growth was 3.9% in the second quarter of 2015. Market participants currently expect annualized GDP growth of about 2.4% in the third quarter, and 2.7% growth in the fourth quarter.



Employment

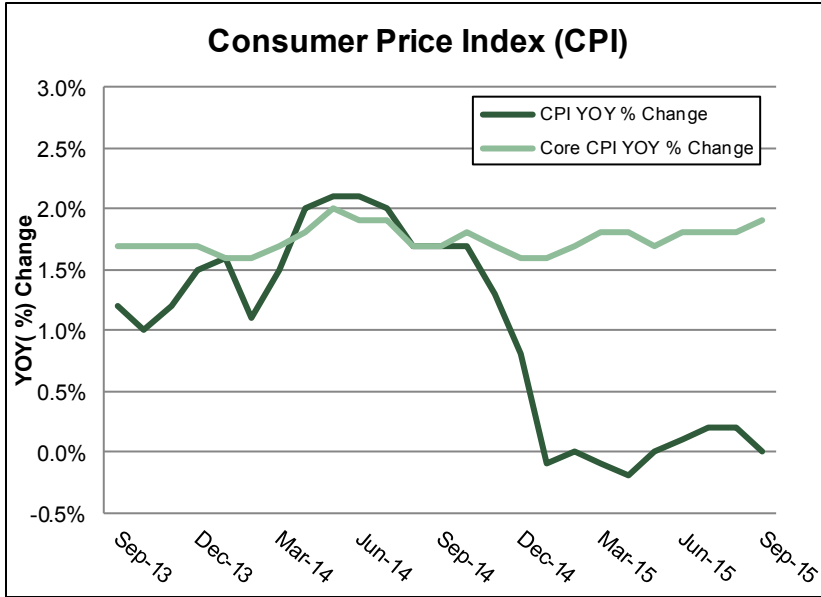


Source: US Department of Labor

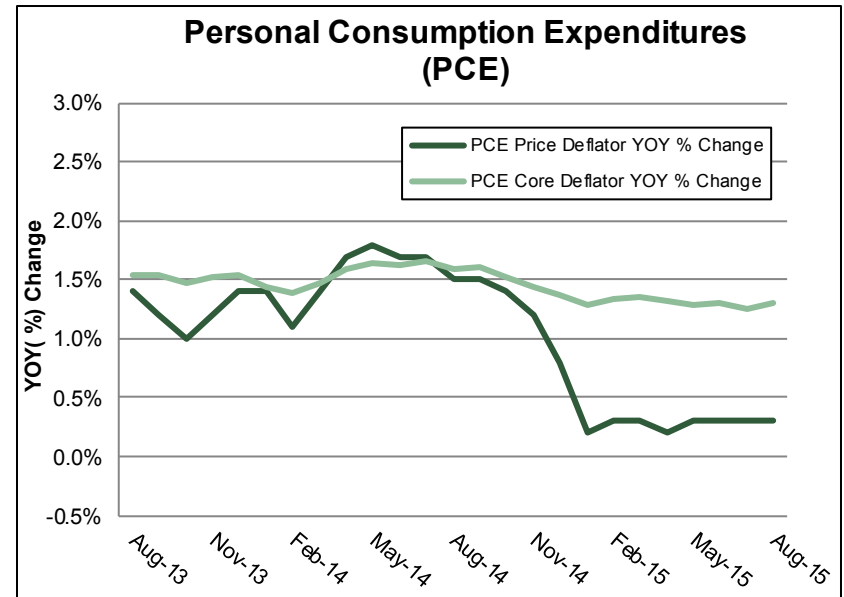


Source: US Department of Labor

- Nonfarm payrolls rose by 142,000 in September, well below the consensus forecast of 201,000.
- The unemployment rate was unchanged at 5.1% in September.
- A broader measure of unemployment called the U-6, which includes those whom are marginally attached to the labor force and employed part time for economic reasons, declined to 10.0% from 10.3%.

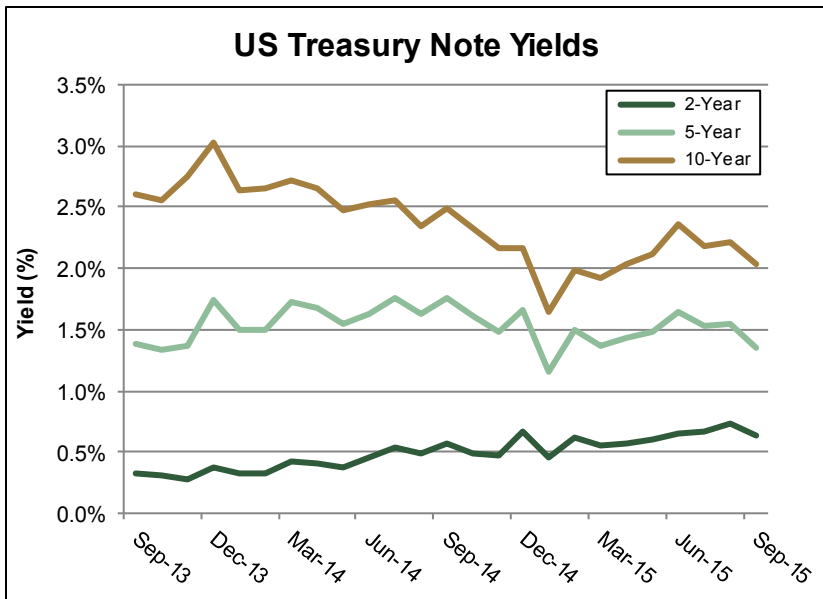


Source: US Department of Labor

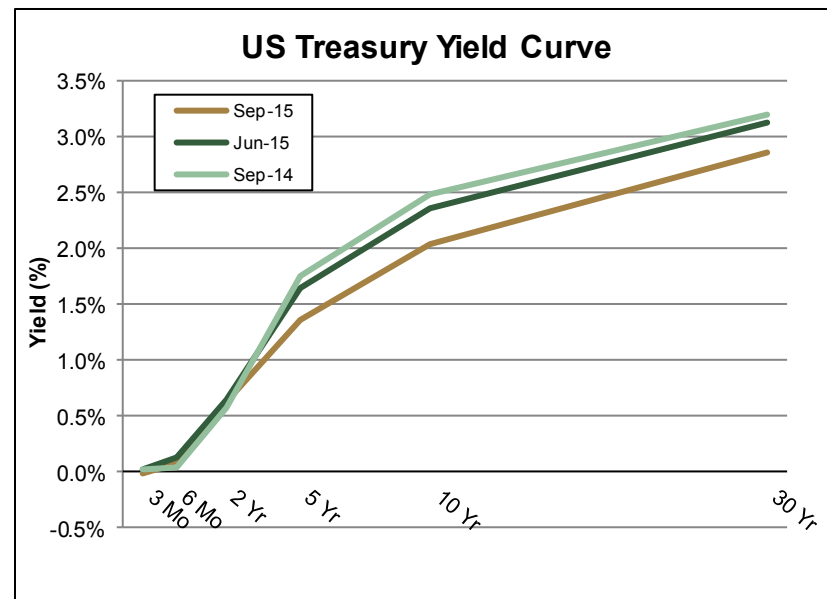


Source: US Department of Labor

- September Consumer Price Index (CPI) was flat, on a year-over-year basis.
- Headline inflation remains depressed by weak commodity prices.



Source: Bloomberg



Source: Bloomberg

- Interest rate volatility remains elevated.
- Concerns about slowing global economic growth, the continued decline in oil prices and ongoing uncertainty about Fed monetary policy has fueled financial market turbulence.
- During the past three months, the Treasury yield curve has flattened with the yield on 10-year Treasuries falling about 40 basis points.



Moulton Niguel Water
Leading the Way in Service

2015 COMPREHENSIVE ANNUAL FINANCIAL REPORT PRESENTATION

Finance and Information Technology Meeting

November 18, 2015

TIMELINE

- Draft was presented to Audit Ad Hoc November 5, 2015
- Today's presentation:
 - Financial Highlights and questions
- No Board action today
- Provide any comments or edits by November 30, 2015

BACKGROUND

- Unmodified “clean” opinion-Highest level
- Opinion letter
 - Not included-draft phase
 - Will be included in final document
- Audit Communication Letter (pg. 121-123)
 - Audit informational items
- Report on Internal Control (pg. 125-126)
 - No internal control weaknesses

FINANCIAL HIGHLIGHTS

- Net Income was \$8.3 million (pg. 82)
 - Last three years of Net Income:
 - 2015 - \$8.3 million
 - 2014 - \$6.3 million
 - 2013 - \$8.1 million
- Long-term debt decreased by \$10 million or (8.3%) to \$110 million (pg. 97)
 - Rating agencies:
 - Standard & Poor's-AA+
 - Fitch-AAA
- Debt coverage ratio at 282%, above District's policy of 175% (pg. 102)
- All positive indicators demonstrating strong financial position

NOTABLE CHANGES

- GASB 68 – *"Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27"*
 - Improve transparency and financial reporting for pensions
 - Comparative statements not presented
 - Change in financial reporting, no new liabilities created
 - No "maturity date"

NOTABLE CHANGES

- GASB 68 effects (pg. 79-80)
- Note 8 gives more detail (pg. 103-108)
- Proactive MNWD Board decision to modify CalPERS program in 2009

MOULTON NIGUEL WATER DISTRICT

STATEMENT OF NET POSITION JUNE 30, 2015

Assets:

Current:

Cash and investments (Note 2)	\$ 22,824,739
Restricted cash and investments with fiscal agent (Note 2)	8,777,679
Accounts receivables:	
Water and sanitation charges	3,392,611
Taxes and acreage assessments	300,842
Other accounts receivable	222,169
Grant receivable	405,068
Interest receivable	620,930
Current portion of AMP receivable (Note 3)	1,302
Inventory	1,703,635
Prepaid expenses	480,124

Total Current Assets **38,729,099**

Noncurrent:

Investments (Note 2)	127,305,643
Retrofit loans receivable (Note 3)	597,037
Capital assets - net of accumulated depreciation (Note 5)	343,111,410
Capital assets not being depreciated (Note 5):	
Land	1,091,910
Construction in progress	31,642,242

Total Noncurrent Assets **503,748,242**

Total Assets **542,477,341**

Deferred Outflows of Resources:

Deferred charges on refunding	1,488,900
Deferred items related to pension (Note 8)	1,431,577

Total Deferred Outflows of Resources **2,920,477**

Total Assets and Deferred Outflows of Resources **\$ 545,397,818**

MOULTON NIGUEL WATER DISTRICT

STATEMENT OF NET POSITION JUNE 30, 2015

Liabilities, Deferred Inflows of Resources, and Net Position:

Liabilities:

Current:

Accounts payable	\$ 8,162,699
Interest payable	1,830,740
Compensated absences (Note 6)	373,162
Current portion of long-term debt (Note 6):	
Bonds payable	5,685,000
Loans payable	2,110,606
Certificates of participation	1,780,000

Total Current Liabilities **19,942,207**

Long-Term Liabilities

Compensated absences (Note 6)	124,386
Long-term debt (Note 6):	
Bonds payable	25,641,483
Loans payable	10,683,789
Certificates of participation	64,056,049
Net pension liability (Note 8)	12,251,838

Total Long-Term Liabilities **112,757,545**

Total Liabilities **132,699,752**

Deferred Inflows of Resources:

Deferred items related to pension (Note 8)	4,936,619
--	-----------

Total Deferred Inflows of Resources **4,936,619**

Net Position:

Net investment in capital assets	284,833,146
Restricted for capital projects (Note 13)	1,508,109
Unrestricted (Note 14)	121,420,192

Total Net Position **407,761,447**

Total Liabilities, Deferred Inflows of Resources, and Net Position **\$ 545,397,818**

NOTABLE CHANGES

- Retroactive reporting for GASB 68 (pg. 82)
 - Note 15 (pg. 115) details calculation
 - \$15,850,089 related to reporting change
 - \$2,945,897 for net pension asset (CalPERS side fund)

MOULTON NIGUEL WATER DISTRICT

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION YEAR ENDED JUNE 30, 2015

Operating Revenues:	
Water charges	\$ 28,604,894
Recycled charges	4,880,742
Sanitation charges	16,182,197
Other	329,755
Total Operating Revenues	49,997,588
Operating Expenses:	
Source of supply:	
Water purchases	25,978,276
Meter purchases	682,151
Utilities	1,989,712
Pumping water	2,596,544
Sewage treatment	9,519,199
Water transmission and distribution	959,193
Customer service	2,839,137
Water efficiency	3,472,838
General, administrative, and other	14,702,063
Post retirement medical benefits (OPEB)	361,057
Depreciation	16,708,439
Total Operating Expenses	79,768,609
Operating Income (Loss)	(29,771,021)
Nonoperating Revenues (Expenses):	
Investment income (loss)	2,573,621
Investment income - restricted	50,685
Property tax revenue and acreage assessments	24,011,516
General obligation bond assessments	4,934,793
Interest on long-term debt	(6,160,882)
Intergovernmental revenue	6,401,510
Cellular lease income	1,731,352
Other non-operating revenues (expenses)	3,661,818
Total Nonoperating Revenues (Expenses)	37,204,413
Income (Loss) Before Capital Contributions	7,433,392
Capital Contributions	
Developer donated capital facilities	294,000
Connection fees	551,179
Change in Net Position	8,278,571
Net Position:	
Beginning of Year, as originally reported	418,278,862
Restatements (Note 15)	(18,795,986)
Beginning of Fiscal Year, as restated	399,482,876
End of Fiscal Year	\$ 407,761,447

GFOA AWARD

- Highest honor in Governmental Financial Reporting
- Encourages GAAP, increases transparency and full disclosure
- 2015 CAFR will be 7th consecutive year



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Moulton Niguel Water District
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2014

A handwritten signature in black ink, reading "Jeffrey R. Egan".

Executive Director/CEO



Moulton Niguel Water
Leading the Way in Service

BI-MONTHLY TO MONTHLY BILLING

Finance and IT Board Meeting

November 18, 2015

AFFECTED CUSTOMERS

- Effective December 1, 2015, all customers currently billed on a bi-monthly basis will be billed on a monthly basis
 - Commercial
 - Potable Irrigation
 - Multifamily

BENEFITS OF CONVERSION

- Customer benefits
 - Increased communication
 - Provide more information to the District's largest users
 - Drought
 - Reductions not penalties

BENEFITS OF CONVERSION

- District benefits
 - Reading route efficiencies
 - Rate change efficiencies
 - All customers changed to new schedules at the same time
- Reduce cashflow risk
 - Reduces the time between pumping water and being paid for it

PLANNING AND PREPARATION

- Work to Date:
 - Testing
 - Staff compared current bills with hypothetical bills
 - Outreach
 - Informational mailer to inform customers of upcoming change
- Preparation for Go-Live
 - New meter read schedule
 - Timed rate schedule changes
 - Billing schedule



RATE STABILIZATION FUND

Finance and IT Board Meeting

November 18, 2015

PURPOSE & HISTORY

- Avoid large rate increases
- Initially created in 1991
- Updated as part of bond issuances
- Current reserve policy approved Aug. 2014

DISTRICT RESERVE POLICY

- Minimum
 - 50% of annual 1% Ad Valorem Property Tax revenue
- Replenishment
 - Replenishment to commence within 12 months

BOND COVENANT POLICIES

- Minimum
 - Tax/Net revenues equal 125% annual debt service payments
- Replenishment
 - Fund balance equals 50% of annual debt service



Taking shorter showers
helps save water,
but turning on the
sprinklers for

15 minutes
can use as much

water as

one 7 hour
shower.



It's not just me.

AVOID OVERWATERING. USE WATER WISELY.

The average yard needs less than 4 to 7 minutes of watering each week in November and December. Adjust your watering based on weather. Visit www.mnwd.com/wateringcalculator for more information.



www.mnwd.com

PO BOX 30204

LAGUNA NIGUEL CA 92607-0204

Moulton Niguel Water
Leading the Way in Service

WATER SHORTAGE CONTINGENCY PLAN

STAGE 2 IN EFFECT

Remain within your water budget or pay up to \$9.04 for every billing unit (1 billing unit [BU] = 748 gallons) of water used in excess of your water budget. Visit www.mnwd.com/yourmnwd for more information.



Water based on weather.
No watering up to
48 hours after a rain event.

Thirsty for more information?

www.mnwd.com/yourmnwd



www.mnwd.com

Moulton Niguel Water
Leading the Way in Service
PO BOX 30204
LAGUNA NIGUEL CA 92607-0204

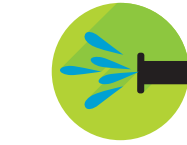
IMPORTANT NEWS ABOUT YOUR WATER BILL EFFECTIVE DECEMBER 1, 2015



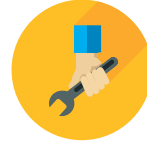
For more information, please visit www.mnwd.com/yourmnwd

What you can do today

Lawns and leaks can attribute to significant water consumption. Reducing outdoor watering and fixing leaks both indoors and outdoors can drastically reduce unnecessary water use.

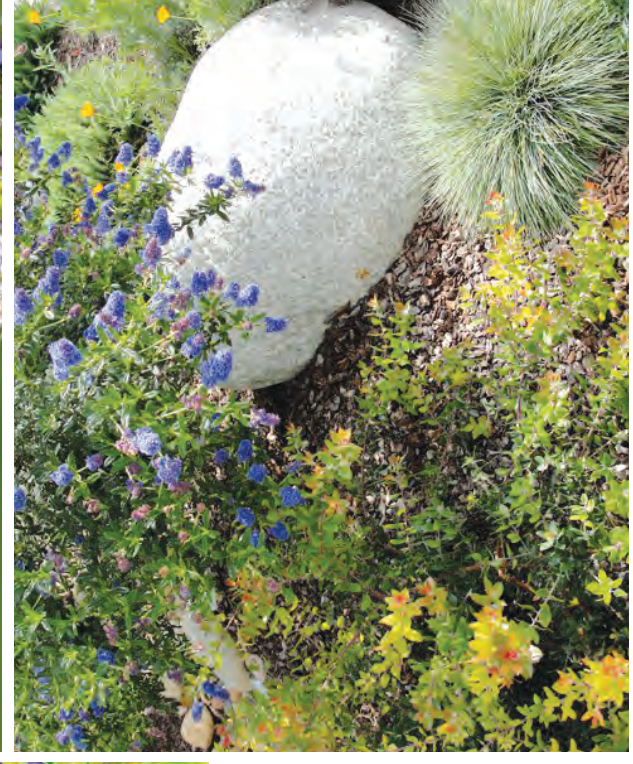


Watch Your Watering: Outdoor irrigation requirements decrease considerably in November and December, in comparison to July and August. As of right now, the watering index is approximately 40 to 60 percent of the watering requirements in the warm summer months. Be sure to adjust your watering schedule based on the weather, and there is no outdoor irrigation permitted up to 48 hours after a rain event, as mandated by the State Water Resources Control Board. For more information, visit: <http://www.mnwd.com/wateringcalculator>.



Look for Leaks: A toilet leak can waste up to 90,000 gallons (120 BU) of water per month. Common types of leaks include worn toilet flappers, dripping faucets, broken sprinkler heads, and other leaking valves. Check for leaks to prevent wasting water. For a quick tutorial on how to look for leaks, visit: <http://www.home-water-works.org/indoor-use/leaks>.

Welcome to **Moulton Niguel Water District's** on-going series to help you navigate through one of California's worst droughts. MNWD will be offering important information and tips along with rebates and cost saving incentives for homeowners and businesses.



TOP LEFT: **Silver Bush Lupine**, a perennial shrub. TOP RIGHT: **Pride Of Madeira**, showy flowers in spring attract hummingbirds, bees, and beneficial insects. BOTTOM*: **ceonothus**, **Manzanita**, **Festuca**, and **California Poppy** combine to provide color and textural contrast in the native garden. *Courtesy of www.californianativenativeplants.com

RETURN TO NATURE WITH A CALIFORNIA NATIVE GARDEN.

CONFUSED ABOUT WHAT TO REPLACE YOUR LAWN WITH? **CHOOSE CALIFORNIA NATIVES.**

GOING NATIVE

Plants characterized as drought-tolerant are not necessarily California native plants, and can include specimens from around the world. While planting these varieties may reduce your water use, a 100 percent California native garden has many advantages that non-natives lack:



✓ BEAUTY

When offered the native alternative for their garden, homeowners often think of cactus and rock gardens. On the other hand, many native varieties have **eye-catching flowers**, beautiful foliage, and a pleasant fragrance.



✓ LESS MAINTENANCE

Natives require **less time and work spent on garden chores** such as mowing and pruning and produce less green waste.



✓ ATTRACT BUTTERFLIES AND HUMMINGBIRDS

By growing native plants in our gardens, we are restoring some of the natural biodiversity of our area and **providing habitat** for birds, insects, and other natural pollinators crucial to the region.



✓ REDUCE URBAN RUNOFF

Inefficient landscape water use generates urban runoff that pollutes our waterways and coastal areas and leads to beach closures. A well-designed native garden utilizes the water and reduces urban runoff, ultimately **keeping our beaches cleaner**.



✓ NON TOXIC

Native plants don't need chemical fertilizers. Reducing or eliminating pesticide use lets natural pest control take over and keeps garden toxins out of our creeks and watersheds. So what's good for the native garden is good for our families, pets, and oceans.



✓ SAVE WATER

Native plants require much **less water**, especially when combined with swales, water gardens, and other ways to keep the rain and irrigation water where it's needed and out of the gutters and storm drains.

NATIVE EQUALS NATURAL!

NOT JUST CACTUS AND ROCKS



NATURALLY NATIVE TIP OF THE WEEK

The most critical factor to insure success when putting in natives is planting during the cool season. In the fall, the soil is still warm, but the air is growing cooler and there is some moisture in the air, making it an ideal time of year to plant. The winter rains are just around the corner, which will encourage the deep roots that are desired in a California native garden.

ORANGE COUNTY HAS

806 NATIVE PLANT SPECIES

That's more **native plant species** per square mile than Yosemite National Park. Source: backtonatives.org

There are so many different beautiful and functional native plants to pick from!

IN THE COMING WEEKS...

This educational series will explain much more about drought-tolerant landscaping, native plants, and effective ways to conserve water in lawns and gardens.

Can't wait? Moulton Niguel Water District offers **FREE LANDSCAPING CLASSES** mnwd.com/landscapeclasses



READY TO LOSE THE LAWN? SAVE SOME GREEN WITH REBATES!

Moulton Niguel Water District is currently providing a...

REBATE UP TO \$2,000 PER SQUARE FOOT for turf removal

Consider giving your yard a makeover with California native plants this fall!



Moulton Niguel Water
Leading the Way in Service

Saving Water is Beautiful

To learn more about water saving tips, resources and rebates, go to mnwd.com/yourmnwd

Welcome to **Moulton Niguel Water District's** on-going series to help you navigate through one of California's worst droughts. MNWD will be offering important information and tips along with rebates and cost saving incentives for homeowners and businesses.

A CHANGE IN THE WEATHER FALL IS FINALLY IN THE AIR, BUT EVEN IF SOUTHERN CALIFORNIA GETS ENOUGH RAIN THIS WINTER TO TURN OUR HILLS AND LAWNS GREEN AGAIN, IT WON'T SOLVE OC'S WATER SHORTAGE.

TOP 10 TIPS FOR FAMILY- AND PET-FRIENDLY NATIVE GARDENS

- CHOOSE** native plants that attract butterflies, bees and hummingbirds. Watching life in the garden makes learning fun.
- KIDS** love to explore and play. Provide paths made of decomposed granite or water permeable pavers to let their imagination soar.
- DEDICATE** part of your garden to the kids or grandkids where they can grow their own native plants from seeds or seedlings.
- CALIFORNIA** native plants don't require chemical fertilizer or pesticides, so your new garden is healthier for kids and pets.
- IF YOUR** kids and/or pets love to play on turf, keep some! But replace the rest of it that is there for looks only.
- PETSCAPE** with your pet's habits in mind. If your canine patrols the fence line, place paths where they like to roam.
- CONSIDER** a soft hardscape like decomposed granite, or smooth gravel with base rock beneath, for your pet's potty area.
- WATCHDOGS** love a high spot to observe. Consider a lookout boulder or berm to give yours a view.
- MANY CATS** love a clean, well-lit place to bask in the sun. Others yearn for a secret spot to hide. Give them what they want!
- DON'T OVERPLANT** your garden. Leave plenty of open spaces for kids and pets to enjoy.



Did you know that the **Sierra snowpack** makes up **30%** of the state's water supply?



NATURALLY NATIVE TIP OF THE WEEK

TO HELP CHOOSE WHICH **CALIFORNIA NATIVE PLANTS** ARE BEST FOR YOUR GARDEN, **GO TO CALSCAPE.CNPS.ORG** AND ENTER YOUR CITY IN THE SEARCH ENGINE.

DID YOU KNOW?

Moulton Niguel Water District produces approximately **25%** of its supply through **recycled water**. MNWD treats wastewater and uses it for irrigation and other non-potable, or non-drinking, uses.

Every gallon of recycled water we use **saves a gallon of drinking water**. In total, the district **saves over 2.7 billion gallons of water each year through recycling**.

READY TO LOSE THE LAWN? SAVE SOME GREEN WITH REBATES!

Moulton Niguel Water District is currently providing a...

**REBATE UP TO
\$2,000 PER SQUARE FOOT**
for turf removal

Consider giving your yard a makeover with California native plants this fall!



IN THE COMING WEEKS...

This educational series will explain much more about drought-tolerant landscaping, native plants, and effective ways to conserve water in lawns and gardens.

Can't wait? **Moulton Niguel Water District** offers **FREE LANDSCAPING CLASSES** mnwd.com/landscapeclasses



Moulton Niguel Water
Leading the Way in Service

Saving Water is Beautiful

To learn more about water saving tips, resources and rebates, go to mnwd.com/yourmnwd

ORANGE COUNTY'S

Water Wise LIFESTYLE

Welcome to **Moulton Niguel Water District's** ongoing series to help you navigate through one of California's worst droughts. MNWD will be offering important information and tips along with rebates and cost-saving incentives for homeowners and businesses.

MOULTON NIGUEL WATER DISTRICT

LOSING YOUR LAWN & GAINING a GARDEN

So you've decided to trade in your non-functional ornamental turf, with its high maintenance and high water consumption, for a California native garden. Congratulations!

But first, you've got to kick the grass out.

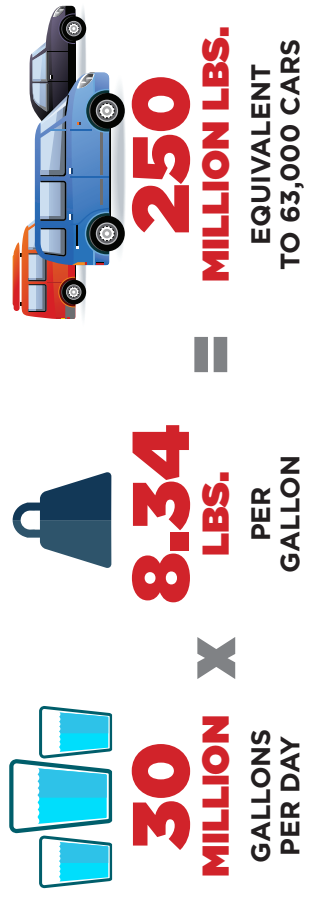


NATURALLY NATIVE TIP OF THE WEEK

LOVE THE TURF AESTHETIC BUT DISLIKE THE MAINTENANCE AND UPKEEP? **CONSIDER TURF ALTERNATIVES**, SUCH AS THE SAND DUNE SEDGE, CLUSTERED FIELD SEDGE, NEEDLE GRAMA, AND THE SMALL FLOWERED NEEDLEGRASS. VISIT [HTTP://CALSCAPE.CNPS.ORG/](http://CALSCAPE.CNPS.ORG/) TO SEE MORE NATIVE PLANT OPTIONS.

BY THE NUMBERS MOULTON NIGUEL WATER DISTRICT SUPPLIES NEARLY 11 BILLION GAL. OF WATER A YEAR TO OUR CUSTOMERS.

A gallon of water weighs over 8 lbs. EVERY GALLON PUMPED TAKES ENERGY TO GET IT TO YOU.



That's a lot of water and a lot of energy required to deliver that water to your home!

THE BOTTOM LINE: It's much cheaper to **WASTE LESS** water outside our homes (where more than 50-70% of residential water is used) than it is to spend billions to buy and pump more H₂O into and around OC.

TOP TIPS FOR CUTTING THE GRASS, PERMANENTLY

Terminate turf by digging it out, poisoning it, or smothering it, depending on your preference and what type of grass is in your lawn.

Cool season grasses are much easier to remove than warm season grasses, and since they generally require more water than warm season grasses, removing them will save even more water!

Warm season grasses, like Bermuda and St. Augustine, are dormant in winter.



Cool season grasses, like rye or fescue (often known as Marathon), are dormant in summer.

Dig out warm season grass by hand in the winter, and consider passing the soil through a sieve to get remnants.

You'll still miss some remnants, so quickly **remove new grass shoots** out when they start growing back.

Don't rototill warm season grasses. That just spreads the roots and stems, which reproduce exponentially the next summer.



Other options: use Roundup on tough warm season grasses and their weeds or sheet mulch cool season grasses.

Mow the cool season lawns **short**, cover with newspaper or cardboard and add 3 inches of compost. The lawn will smother and the covering will convert to rich soil.

Healthy trees in the lawn? Take precautions to protect their roots, whichever method you choose.

For more tips, visit: www.cnps.org/cnps/grownative/lawn

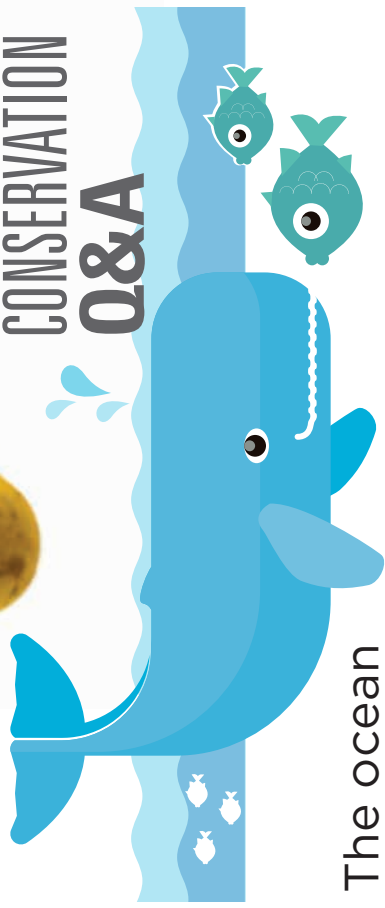


IF YOU'RE USING YOUR TURF, KEEP IT!

Use a **watering calculator** and **index** to water only what your plants and lawns need. The average yard only requires **four to seven** minutes of watering a week in November and December. That's about 30 to 50% of what yards require in the summer.

Visit www.mnwd.com/wateringcalculator for more info.

CONSERVATION Q&A



The ocean is full of water, and it's right next door. Isn't this the answer to all of our water supply issues?

While desalination of seawater is being explored along Orange County's coast, it's only part of the solution. A desalination plant scheduled to open in Carlsbad next year cost \$1 billion to build, and that's just the cost to build it. Add to that the cost of operating the facility with its energy-intensive processes. Desalinated water typically costs about \$2,000 for the amount of water a family of five uses in a year (an acre foot). That's about double that of water obtained from recycled water, according to a 2013 study from the California Department of Water Resources.

READY TO LOSE THE LAWN? SAVE SOME GREEN WITH REBATES!

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Can't wait? Moulton Niguel Water District offers FREE LANDSCAPING CLASSES mnwd.com/landscapeclasses

Saving Water is Beautiful

To learn more about water saving tips, resources and rebates, go to mnwd.com/yourmnwd



Moulton Niguel Water
Leading the Way in Service

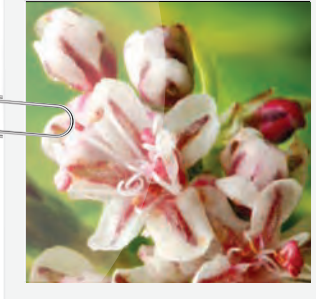
Welcome to **Moulton Niguel Water District's** ongoing series to help you navigate through one of California's worst droughts. MNWD will be offering important information and tips along with rebates and cost-saving incentives for homeowners and businesses.

CARING FOR CALIFORNIA NATIVES

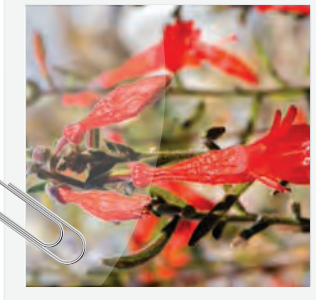
Time spent in a California native garden is **a chance to see nature, up close and personal.** Tending a garden modeled after the natural beauty of the region reminds us what makes Orange County such a wonderful place to live.



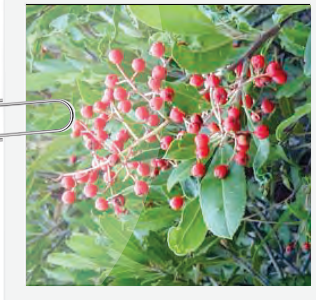
1. CALIFORNIA BAY LAUREL
(Umbellularia californica)



2. CALIFORNIA BUCKWHEAT
(Eriogonum fasciculatum)



3. CALIFORNIA FUSCHIA
(Zauschneria californica)



4. CALIFORNIA HOLLY
(Heteromeles arbutifolia)



5. CALIFORNIA MOUNTAIN LILAC
(Ceanothus)



6. CALIFORNIA POPPY
(Eschscholzia californica)



7. CALIFORNIA SUNFLOWER
(Encelia californica)



8. CALIFORNIA SYCAMORE
(Platanus racemosa)

TYPES OF CALIFORNIA NATIVES

There are many ways to select the plants you want in your garden, and many resources to help you do it. Online guides can help you select plants so you have color in your garden all year, or those that reflect a type of natural aesthetic you love.

For more California native plants, visit calscape.cnps.org to search for native plants by location.

Turn off your sprinklers when it rains. **No watering** for at least **48 hours** after a rain event - it's the law.

TAKING SHORTER SHOWERS HELPS SAVE WATER, BUT TURNING ON YOUR SPRINKLERS FOR



15 MINUTES

CAN EQUAL



TAKING JUST ONE

7 HOUR SHOWER

READY TO LOSE THE LAWN? SAVE SOME GREEN WITH REBATES!

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WATERING BASICS



Plant in fall and winter so plants can get established during the rainy and cooler seasons.



Put plants with the same water needs in the same area so they thrive on the same amount of water.



Once established, many California natives can get by on seasonal rainfall alone.



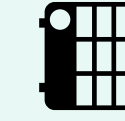
During the first two years after planting, you need to give your plants a little extra water every few weeks to help your plants become established.



Since you're only watering a few times a year, water by hand, which also keeps you in touch with nature in your garden.



Most controllers and timers are set to deliver too much water. Even if set correctly, the timers may reset after a power outage. Visit www.mnwd.com/wateringcalculator to create your own watering schedule.



If you decide to keep your irrigation system, install a "smart" irrigation controller that uses real-time weather data to adjust the irrigation. Be sure to set your watering schedule based on the types of plants you have in your garden.



DID YOU KNOW? Hand watering saves more water than using a sprinkler system. Many native plant experts recommend eliminating automatic irrigation systems and relying on nature and occasional hand watering for California native gardens.



IN THE COMING WEEKS...

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Moulton Niguel Water
Leading the Way in Service

Water WISE LIFESTYLE

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RAIN, RUNOFF & RECYCLING

LET IT SNOW!

Even if we get plenty of rain in Orange County this winter, that **doesn't mean the drought is over.**



The drought is so severe that California would need **several El Niño-type winters** of heavy snow and rain to refill our reservoirs and underground aquifers.

Orange County typically gets about a **third of its water from Northern California** and the Sierra, including snowpack in the mountains that replenishes reservoirs in spring and summer.

Snowpack levels at the end of last winter were **only 5 percent of average** and the **lowest in 500 years.**

We need **precipitation in the right place and at the right time** in order to make a significant impact on our current water supply shortage. Snowpack in the Sierra early next year is critical.

WAYS TO SAVE

Every year California uses **2 trillion gallons of water more** than our rivers and aquifers can sustainably provide.

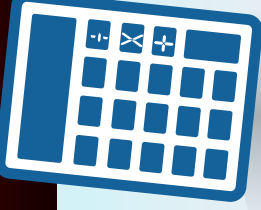
Statewide, Californians use about 3 trillion gallons of water a year for **urban** use, much of which is delivered from reservoirs hundreds of miles away at great costs. Of that,

MORE THAN 1/2 GOES TO LANDSCAPING



STATISTICS SHOW THAT 60% OF OUTDOOR WATERING

is actually **overwatering**, which can be more harmful to plants and lawn than underwatering. We can make a big difference just by watering efficiently, and that's just the beginning!



To water efficiently and to avoid overwatering, use a watering calculator and index: www.mnwd.com/wateringcalculator



OC RECYCLES

All water on Planet Earth is recycled. It always has been, and it always will be. Our recycled water programs help us keep the water where it is needed by treating wastewater to various standards, depending on the end use, so that we can enjoy long-term local water supply reliability and reduce the impacts of importing more water from other sources.

There's been a lot of talk about **greywater recycling**, but did you know that much of Orange County has been recycling water for over 40 years?

Moulton Niguel Water District meets 25 percent of its water demand with recycled water each year. That's nearly 3 billion gallons of water each year that we don't have to import, thanks to our recycled water supply.

Our recycled water system is a highly efficient and cost effective regional program that treats and recycles as much of our used water, including greywater, as possible without requiring any additional plumbing retrofits or maintenance concerns for our residential customers.

METHODS FOR ESTIMATED POTENTIAL H₂O SAVINGS

URBAN EFFICIENCY
1 - 1.7 Trillion Gallons

WATER REUSE
390 - 590 Billion Gallons

STORMWATER CAPTURE
130 - 195 Billion Gallons

CHALLENGE: Storm events are rare and scattered throughout the year. The water quality of stormwater also poses a challenge, as it is typically highly variable and difficult to treat.

CHALLENGE: Recycled water availability is dependent on indoor water use. As we continue to conserve, we must focus outdoors to ensure that we are cutting back on overwatering, which will help reduce runoff to the ocean and avoid wasting water that cannot be captured for reuse.

WAYS YOU CAN HELP TO SAVE WATER...



REPLACE turf grass with California native gardens and bioswales that are designed to capture rain.

REPLACE inefficient plumbing and appliances.



FIND and fix water leakage.

USE water efficiently and support use of recycled water for irrigation of gardens and landscapes.

SUPPORT projects to improve local water supply reliability by capturing stormwater runoff and recycling used water.

Recycled water is distributed in **purple pipes** to our customers primarily for outdoor irrigation.



Moulton Niguel Water
Leading the Way in Service

Saving Water is Beautiful

To learn more about water-saving tips, resources and rebates, go to mnwd.com/yourmnwd



EVERYTHING IS HERE. TIME TO ADJUST THOSE SPRINKLER TIMERS!

Although it may feel like Summer outside, Fall is officially here and soon it will be time to adjust our clocks and check those batteries in our smoke alarms. It's also time to adjust those sprinkler timers and reduce outdoor watering.



Moulton Niguel District reports that each year, significant water waste occurs when sprinkler timers are not adjusted for the fall season. Water needs for your lawns and gardens tend to decrease dramatically.

So give your sprinkler system a break and adjust your sprinkler timer now!

Let's take a break.



I need some time off...

ADJUST YOUR SPRINKLER TIMER NOW.

Avoid overwatering, and consider taking advantage of the fall planting season to save water all year long by planting California native plants. Visit www.mnwd.com for more information.



SHRED EVENT A GREAT SUCCESS

Laguna Niguel Police Services can add another successful shredding event to its books. During the 5-hour event on Saturday, September 26, more than 28,000 pounds of paper containing personal and sensitive

information was safely destroyed. Approximately 585 cars made their way through a very systematic and organized line where drivers unloaded their documents into shredding bins for destruction.



“The Shred Event not only allows residents to safely dispose of sensitive documents, it also gives the City an excellent opportunity to practice its disaster response procedures, such as Point-of-Distribution skills” said Phil Robinson, the City’s Emergency Preparedness Coordinator.



“Should there ever be a need for the City to dispense emergency supplies to residents, the organization and

planning associated with the shredding event will help staff distribute these supplies in an effective and efficient manner.” The next shredding event is scheduled for February 6, 2016.



MISSION VIEJO
Mission Viejo Life Blog

Browse: Home / 2015 / November / 11 / Despite predicted rainy season on tap, we still must conserve water

Despite predicted rainy season on tap, we still must conserve water

By mvlife on November 11, 2015



Fall is finally in the air. But even if Southern California gets enough rain this winter to turn our hills and lawns green again, it won't solve OC's water shortage, according to Moulton Niguel Water District, which along with El Toro Water District and Santa Margarita Water District, serve Mission Viejo.

Most of south Orange County's water is imported via the 242-mile Colorado River Aqueduct and the 700-mile state water projects. It takes a lot of energy to pump the water from these sources to your home or business so every drop of water saved also conserves energy.

Most water waste occurs outdoors: some 50-70 percent of residential water usage goes to lawns and gardens. While conserving indoors is important, Orange County residents are using less water inside than any time since the 1990s, when the population was much smaller. Water wasted outside is lost to storm drains and can pollute the oceans and beaches. So saving water outside the home is essential for making a difference and helping the state through this crisis.

The average yard needs less than 4 to 7 minutes of watering each week in November and December. Be sure to adjust your watering based on weather. Overwatering can be more harmful to your plants and lawn than under watering. Also, remember to refrain from water for 48 hours after a rain event.

If you're not sure how much you should be watering, use the watering index and watering calculator at www.mnwd.com/wateringcalculator. Visit www.mnwd.com/watersavingtips for more great tips on how to save water.

Posted in Conservation, News | Tagged city of mission viejo, Mission Viejo, mission viejo information, mission viejo life, mission viejo official blog | Leave a response

mvlife

Leave a Reply

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Email *

Mission Viejo Life Blog

The ONLY Official and Accurate News Blog of the City of Mission Viejo

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Recent Comments

Renee : Maybe it's because Farrell's had the absolute worst service. Nov 15, 10:12 AM

Patrick : There's something fishy about this.... Farrell's is getting the boot for Islands? Seriously? Nov 14, 9:34 PM

Penny Hobbs : I feel in order to be a well-rounded individual you need the arts in your lives and in your children lives. Now that schools don't... Nov 13, 2:40 PM

Bob Crowson : I'm very happy to see the City seek input from the community on the value of the Arts in Mission Viejo. We live in a... Nov 13, 12:15 PM

Community Partners

VONS

COMPLIMENTARY SANITIZER

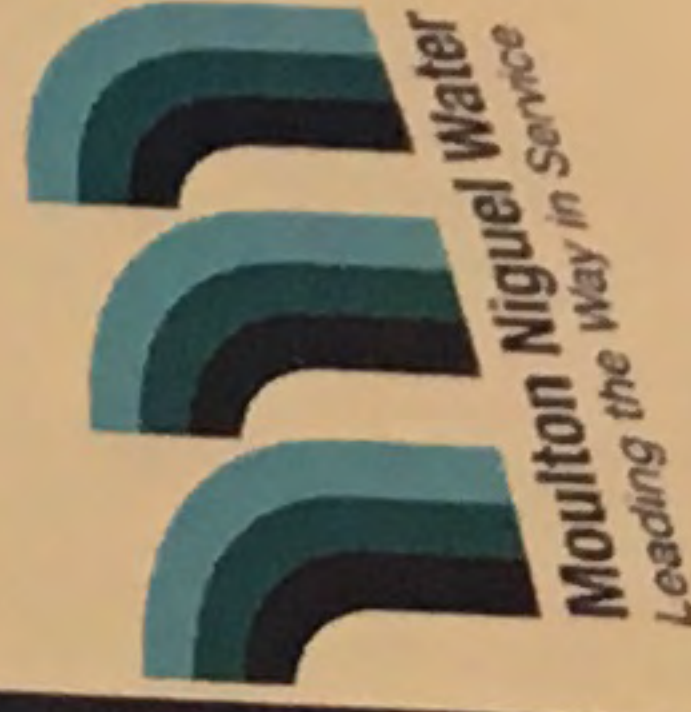
Be water smart.
Save some for later.



One world. One water. One future.

Thank you for your help in saving water.
Every drop matters!

For more tips on how to save water, visit
www.mnwd.com/yourmnwd



Moulton Niguel Water
Leading the Way in Service

BEDBATH &
BEYOND

SANITIZE HERE

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For Immediate Release

Media Contact:
Megan Schneider
(949) 448-4020
mschneider@mnwd.com

As Clocks Fall Back, MNWD Reminds Customers to Adjust Irrigation Controllers to Save Water

Laguna Niguel, Calif. (October 27 2015) – At 2:00 a.m. on November 1, residents across North America will set their clocks back one hour as this year’s Daylight Saving Time comes to an end. Technology has made this process nearly automatic for clocks on phones, in cars and throughout the house. However, clocks on irrigation controllers can be easily forgotten.

This fall, Moulton Niguel Water District (MNWD) reminds its customers to also adjust their irrigation controller clocks to ensure sprinkler systems run accurately and efficiently.

More importantly, District officials urge customers to take this opportunity to reduce how long and when lawns are watered.

“50 to 70 percent of our water is used outdoors, and over half of that water is inadvertently wasted by overwatering our plants and lawns,” said MNWD Board President Donald Froelich. “By reducing the amount of days and time a lawn is watered, even by just a few minutes, a homeowner can save hundreds of gallons of water each day.”

Customers can customize watering schedules based on type of plants and lawn, irrigation method, and location at <http://www.bewaterwise.com/calculator.html>

The average lawn in MNWD’s service area needs less than 15 minutes per week between the months of November and December. That means, for many customers, just two to three days of watering at less than five minutes per start time is sufficient to maintain the yard. When it rains, turn off your irrigation and allow nature to quench your yard’s thirst!

Reduce Sprinkler Times, Stay Within Water Budgets

Reducing outdoor water use is the most significant step residents can take to stay within their personalized water budgets provided by MNWD. These budgets, which are developed using the size of a landscaped area and variable weather data, are a critical tool in ensuring MNWD can continue to achieve its State-mandated conservation target.

“Adjusting the days and times our sprinklers run is among the most significant steps a resident can take in achieving long-term water conservation goals,” continued Froelich. “It’s a simple measure that can also occur at the same time we turn back the clocks on our irrigation controllers this November 1.”

For a comprehensive list of both indoor and outdoor water use efficiency tips, please visit www.MNWD.com/YourMNWD.

About MNWD

Moulton Niguel Water District (MNWD) provides drinking water, recycled water, and sewer service to more than 170,000 customers in Laguna Niguel, Aliso Viejo, Laguna Hills, Mission Viejo, and Dana Point. Approximately 25 percent of MNWD's water is provided through local water recycling programs. Approximately 75 percent of MNWD's water is imported from the Metropolitan Water District of Southern California – a regional water wholesaler that delivers water from Northern California and the Colorado River.

#



For Immediate Release

Media Contact:
Megan Schneider
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mschneider@mnwd.com

Moulton Niguel Water District GM Honored for Leadership and Innovation

October 27, 2015 (Laguna Niguel, Calif.) -- Coro Southern California, a 501(c)(3) non-profit organization, honored Moulton Niguel Water District General Manager Joone Lopez with its prestigious Meaningful Impact Award.

The award was given at Coro's seventh annual Water & Sustainability Conference in Los Angeles in recognition of Lopez's local, regional, and statewide impact in the water industry.

"Congratulations to Joone for this wonderful honor," said MNWD Board President Donald Froelich. "Our customers and the entire California water community benefit from her leadership. We're grateful for the extraordinary work carried out by her great staff."

According to Coro, the Meaningful Impact Award is given selectively to individuals who demonstrate leadership and innovation in the water industry and other areas. Nominations came in from across the State.

Lopez was selected by the Conference's planning committee, which is composed of water, environmental, and business leaders across Southern California. The Committee cited Lopez's empowering managerial style, innovative approach to public service, and extensive community engagement as the driving traits for the award.

"Moulton Niguel Water District is committed to a philosophy of innovation and leadership, both locally and statewide," said Lopez. "That steadfast direction provided by the Board of Directors and the execution by my exceptional staff is what makes this district special. I share this honor with all of them."

This is Coro's third installment of the Meaningful Impact Award. Past honorees include California Assembly Speaker-elect Anthony Rendon and former City of Los Angeles Department of Environmental Affairs General Manager Lillian Kawasaki. Lopez is the first honoree from Orange County. The event was held Tuesday at the Taglyan Complex in Los Angeles and included attendees from the corporate, public, and non-profit communities.

About Moulton Niguel Water District

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About Coro

Coro began in San Francisco in 1942 to train young people in the leadership skills necessary to assure that our democratic system of government could more effectively meet the needs of its citizens. Since its founding, Coro has grown to include Coro Centers in six cities, including San Francisco, Los Angeles, St. Louis, Kansas City, New York and Pittsburgh. More than 400 participants a year go through a variety of Coro leadership programs nationwide. Approximately 10,000 program alumni are currently serving as leaders in local, regional and national/global businesses, non-profit organizations, governmental agencies and elected public office. Coro is a non-profit, non-partisan educational institute supported by foundations, corporations and individuals.

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For Immediate Release

Media Contact:
Megan Schneider
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mschneider@mnwd.com

MNWD Customers Reach One Billion Gallon Conservation Milestone

November 6, 2015 (Laguna Niguel, Calif.) – Moulton Niguel Water District customers have now saved more than one billion gallons of water since the State regulations were placed into effect by the State Water Resources Control Board on June 1, 2015. This accounts for enough water to serve more than 15,000 customers for an entire year.

“Saving one billion gallons of water is an exciting milestone. It shows that we’re all in this together, and our customers are taking extraordinary steps to save water,” said Donald Froelich, MNWD’s Board President. “But we’re now focused on saving the next billion gallons. We need to continue this momentum through the fall and winter months by reducing our outdoor watering so that we’re not overwatering our plants and lawns as the weather changes.”

As a result of continuous conservation efforts, MNWD customers reduced their water use 17 percent last month compared to October 2013, the benchmark year the State is using to regulate water consumption. This is just shy of the 20 percent target assigned to MNWD; however, MNWD customers have cumulatively saved nearly 23 percent since the regulations went into effect. More than 85 percent of the District’s customers used water entirely within their water budget last month, which is the most efficient October the District has seen since the water budget rate structure was implemented in 2011. This is a significant achievement, given that this October had some of the hottest temperatures on record.

“Last month was a good reminder that we really need to focus on adjusting our outdoor watering based on changes in weather in order to continue to meet our target,” continued Director Froelich. “As the winter months approach, it’s a great idea to turn our sprinklers off and use hand watering to supplement nature’s rainfall.”

MNWD attributes the remarkable amount of water saved to customer-led initiatives, including replacing turf, adjusting outdoor watering schedules, and investing in water-saving technologies.

In fact, MNWD has the highest concentration of turf replacement projects in Orange County. Nearly 2,000 customers have completed or initiated turf replacement projects in the District’s service area, accounting for roughly one-quarter of all projects in the County. This alone has saved nearly 120 million gallons of water District-wide.

MNWD offers many tips and tools to help customers stay within their water budgets, which change with weather conditions. A major goal of the District is to facilitate long-term changes to local water use by providing valuable insights and information to promote good stewardship and understanding of water use efficiency practices.

For a complete list of conservation measures, water saving tips, and available rebates, please visit www.mnwd.com/youmnwd.

Adjust Watering Schedules This Fall

November is a historically challenging month to save water. While most customers use between 50 and 70 percent of their water outdoors, the amount of water lawns and gardens need to thrive drops significantly in the fall due to weather and other variables. However, automatic sprinkler systems often remain set to summer watering schedules, which leads to considerable overwatering.

MNWD encourages their customers to adjust their automatic irrigation systems to water for less time and fewer days in the fall and winter. The typical lawn in MNWD's service area requires less than four to seven minutes of watering per week in November and December. Sprinklers should be shut off completely for at least 48 hours following rain according to statewide regulations.

For more specific information, customers can utilize the watering calculator and watering index at: www.mnwd.com/wateringcalculator

About MNWD

Moulton Niguel Water District (MNWD) provides water, recycled water and wastewater service to more than 170,000 customers in Laguna Niguel, Aliso Viejo, Laguna Hills, Mission Viejo, and Dana Point. Approximately 25 percent of MNWD's water is provided through local water recycling programs. Approximately 75 percent of MNWD's water is imported from the Metropolitan Water District of Southern California – a regional water wholesaler that delivers water from Northern California and the Colorado River.

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ORANGE COUNTY REGISTER

What El Niño means for O.C. water users

[By JOONE LOPEZ](#)

2015-11-11 14:33:01

Californians have responded to the need to reduce urban water usage statewide by more than 25 percent since the governor's Executive Order went into action in June. After five months of great results, the winter season and the much-talked-about El Niño threaten the unprecedented public awareness towards the importance of conservation.

Although scientists and experts tell us that this El Niño is projected to be the third-strongest in 65 years, they say that it will likely take several years of higher-than-normal rain and snowfall to recover from the current drought.

The projected El Niño storms may provide some local relief, but experts indicate that there is much uncertainty in regards to the snowpack, which makes up 30 percent of the state's water supply.

And what many do not realize is that we've actually been in a drought for the past 15 years with intermittent wet seasons according to climatologists at the NASA's Jet Propulsion Laboratory. Their records show that with each year of the drought, the climate is getting warmer. Additionally, the prospect of increased run-off and flooding pose even more challenges as we try to manage the current drought crisis.

With expected rainfall, some people ask if we can capture all the rainwater, but there aren't enough reservoirs across the State to take advantage of the rain, and most of it will run off into the ocean. Others wonder if the heavy rainfall would remedy the dangerously dwindling groundwater supply in the state's aquifers. Unfortunately, satellite images show that our groundwater supply is at an all-time low – a condition seen globally. It would require multiple years of heavy rainfall in areas where there are groundwater basins to alleviate the damaging impact experienced over the years from dry conditions and pumping.

While the outlook is challenging, there are still plenty of opportunities to conserve. We can drastically lower consumption by focusing on reducing outdoor watering, which accounts for approximately 60 percent of the state's urban water usage and, because of overwatering, makes up more than 50 percent of all water wasted.

Given the current landscape of Southern California, it's easy to forget that we live in a desert and that most of our drinking water comes from Northern California and the Colorado River. We need to remind ourselves more than ever that we need to think differently about how we use water and live efficiently to conserve our most precious resource.

The drought is not a temporary condition. It may be interrupted by wet seasons, but, as a state, we are getting drier. To live in this new reality, we need to rethink how we value water and transform our attitude and behavior to make water conservation and water-use efficiency part of our everyday lifestyle.

Water is a statewide resource rife with history, water rights, politics and emotions. It's complex because it is critical. After all, water is one thing that we cannot live without. But despite the differences, there is no question that every Californian should have a safe and reliable water supply in this day and age. There are no easy solutions, but there are plenty of examples of success over the years in conservation, reliability projects, and partnerships to give us hope that the greater the challenge, the greater our resolve.

Our recent success of achieving 25 percent reduction statewide is yet another example. We are all doing our part and more, and the El Niño, while a very welcoming forecast, is not the solution. We are.

Joone Lopez is general manager, Moulton Niguel Water District.



Moulton Niguel Water District

STAFF REPORT

TO: Board of Directors **MEETING DATE:** November 18, 2015

FROM: Matt Collings, Assistant General Manager

SUBJECT: Joint Powers Authority Quarterly Update

DIVISION: District-wide

SUMMARY:

Issue: The District participates in several Joint Powers Authorities and other regional partnerships or programs that impact District operations and finances.

Recommendation: This is an information item only.

Fiscal Impact: The District has adopted a revised Fiscal Year 2015-16 budget of \$9,879,230 for Operating and Maintenance Expenses and \$15,137,940 for Capital Expenses associated with various Joint Powers Authorities and other regional partnerships and programs. A detailed breakdown is provided in Table 1.

BACKGROUND:

The District participates in several Joint Powers Authorities, including the South Orange County Wastewater Authority (SOCWA), San Juan Basin Authority (SJBA), and the Santiago Aqueduct Commission (SAC), and regional partnerships, such as the Joint Regional Water Supply System (JRWSS) or various facilities with Santa Margarita Water District (SMWD). District appointed individuals consisting of Board members and/or staff to represent the District at these various entities. Each entity is operated by either a staff of the Joint Power Authority or a contracted agency responsible for executing the operations and maintenance functions, completing necessary capital improvements, preparing annual budgets, and processing invoices as necessary. Table 1 provides a summary of the various Joint Powers Authorities and regional partnerships of which the District is a member and a breakdown of the annual District budget for each entity. The summary includes only entities with facilities currently in operation and on-going operations and maintenance requirements.

Table 1

Joint Powers Authority or Regional Partnership	Revised O&M Budget FY 2015-16	Adopted CIP Budget FY 2015-16
South Orange County Wastewater Authority (SOCWA)	\$7,324,538	\$12,256,912
San Juan Basin Authority (SJBA)	\$200,000	N/A
Joint Regional Water Supply System (JRWSS)	\$454,495	\$1,065,274
Santiago Aqueduct Commission (SAC)	\$20,000	N/A
Regional Facilities with SMWD (Upper Oso, Upper Chiquita, Plant 3A)	\$1,880,197	\$1,815,754
TOTAL	\$9,879,230	\$15,137,940

DISCUSSION:

During the period covered by this quarterly update (September, October and November) the following notable items were addressed:

South Orange County Wastewater Authority:

- Administrative:
 - The staff of SOCWA and its member agencies' have started a series of workshops to review and discuss the current cost allocation methodologies for the various SOCWA cost centers based on the existing agreements and past practices. One workshop was conducted in October to provide some background and objectives for future workshops. The output of this work will be presented to the SOCWA Board in advance of the budget preparation.
 - The SOCWA Board authorized a study with Anderson Pena to review opportunities for SOCWA on behalf of its member agencies to apply for State Revolving Fund (SRF) loans. The contract was approved with an equal cost-sharing among the participants along with an option for an agency to opt-out of the study. The District has elected to opt-out of the study.
 - The SOCWA Board approved updates to the SOCWA surplus policy. The updates include clarification of responsibilities and authorizations for determining surplus equipment and eliminates the provisions for employees to purchase surplus property directly from SOCWA.
- Project Committee 17 (Regional Treatment Plant):

- The disinfection conversion to sodium hypochlorite at the Regional Treatment Plant has been completed and the facility is no longer utilizing liquid chlorine for disinfection. Work is continuing on the project to complete the disinfection facility modifications and the influent system upgrades.
- Project Committee 15 (Coastal Treatment Plant):
 - The PC 15 members of the SOCWA Board participated in a tour of the Coastal Treatment Plant (CTP) to review the proposed landscape improvements to provide additional fire protection for the facility. The tour also included a review of the access road to the CTP.
 - The PC 15 members of the SOCWA Board approved an amendment to the Environmental Impact Report for the CTP Export Sludge Force Main Replacement Project. The EIR was revised to incorporate erosion protection and slope stabilization measures along the lower Aliso Creek. Refer to the attached Notice of Intent to Adopt a Mitigated Negative Declaration.
- Project Committee 2 (J.B. Latham Treatment Plant):
 - The PC 2 members of the SOCWA Board approved an engineering services contract with Carollo at a fee of \$1,379,241 to provide planning and design work for the Package 'B' improvements, which include a flow control structure between the two sides of the plant, construction of Digester No. 5, along with other miscellaneous improvements. The District's portion of this contract is about \$308,000.
- Project Committee 5 (San Juan Creek Ocean Outfall):
 - The PC 5 members of the SOCWA Board approved the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the proposed upgrades to the San Juan Creek Ocean Outfall junction structure located at Doheny State Beach. Work is expected to begin on this project next spring.

San Juan Basin Authority:

- Governance Study:
 - The SJBA approved a contract with Rich Atwater to conduct a two-phase governance study. The first phase of the study would involve meetings with each of the individual agencies to discuss the current and future purposes of the SJBA. The second phase would include discussions with other potential SJBA stakeholders and a review of various alternative governance structures.
- Foundational Action Funding Work:
 - The SJBA hosted a public workshop on September 29, 2015 to present the proposed San Juan Basin optimization project to review stormwater capture and recharge, recycled water recharge, and seawater extraction barrier. Refer to the attached Fact Sheets for additional information that was provided at the workshop. The SJBA continues to evaluate the proposed project and complete the scope identified in the Foundational Action Funding contract.

- Groundwater Production:
 - Once the City of San Juan Capistrano resumed pumping per the Resolution adopted by the SJBA Board of Directors, the SCWD filed a complaint with the State Water Resources Control Board (SWRCB) asserting a violation of the water rights permit from the SWRCB to the SJBA. An investigation is on-going by the SWRCB.
- Salt and Nutrient Management Plan:
 - District staff is administering the Salt and Nutrient Management Plan (SNMP) monitoring program as part of the San Juan Basin Authority scope. District staff is working with Wildermuth to develop a monitoring program required by the Regional Water Quality Control Board.

Joint Regional Water Supply System:

- Wye Vault Improvements at Eastern Transmission Main
 - South Coast Water District (SCWD) is working with MNWD staff to finalize Wye Vault improvement design on the Eastern Transmission Main (ETM) as part of a Joint Transmission Main (JTM) Upgrade Project.
 - A draft agreement outlining responsibilities and commitments for the proposed improvements has been prepared and is under review by staff and counsel. An agreement between the JRWSS and MNWD will be necessary to incorporate the Wye Vault improvements on the JTM Upgrade Project being administered by SCWD.

Santiago Aqueduct Commission:

- No updates on the Santiago Aqueduct Commission at this time.

Regional Facilities with Santa Margarita Water District:

- Plant 3A
 - SMWD assumed operation of Plant 3A on July 1, 2015. MNWD staff have been meeting on a monthly basis to review Plant operations. Recycled water has been maintained consistently over the past several months.
 - SMWD has worked with MNWD to coordinate improvements to address potential “El Nino” weather conditions. Improvements will be made to mitigate creek flooding impacts at the Plant and to ensure full accessibility during heavy stormflow conditions.



South Orange County Wastewater Authority

**NOTICE OF PUBLIC REVIEW
INTENT TO ADOPT A PROPOSED MITIGATED NEGATIVE
DECLARATION
(State Guidelines §15072)**

Subject: Notice of Intent to Adopt a Mitigated Negative Declaration in Compliance with Section 15072 of the California Environmental Quality Act (CEQA).

Proposed Project: AWMA Bridge Closure, Laguna Niguel, California

South Orange County Wastewater Authority (SOCWA) proposes to close and remove the privately owned bridge that crosses Aliso Creek on AWMA Road near the intersection of Alicia Parkway and AWMA Road in the City of Laguna Niguel, Orange County, California. The wooden bridge was originally constructed by Aliso Watershed Management Agency (AWMA, now SOCWA) in 1979 to allow workers access to the SOCWA Coastal Treatment Plant (CTP) located approximately three miles downstream and adjacent to Aliso Creek. The bridge was constructed by AWMA in an easement on what is now County property to provide temporary access to Alicia Parkway, which at the time was the only developed road in the area, until other permanent access was available for AWMA vehicles traveling to the CTP. Primary access to the CTP is now provided by other roads in the City of Aliso Viejo that connect with Aliso Creek Road (via Wood Canyon Drive and Knollwood Road).

A structural evaluation of the AWMA Bridge determined that the bridge was nearing the end of its useful life and unable to continue to be safely used as an alternate access to the nearby park, schools, and other facilities in the area. Because permanent access is now available to the CTP from Aliso Creek Road and given the condition and safety concerns of the wooden bridge structure, SOCWA plans to permanently close and remove the AWMA Bridge.

Potential Environmental Effects: The planned closure and removal of the AWMA Bridge (the proposed "Project") has the potential for impacts to biological resources, traffic circulation, recreational use, and other environmental resources. An Initial Study has been prepared that describes the potential environmental effects of the proposed Project and it has been determined that the Project would not result in any significant adverse environmental effects if mitigation measures are implemented.

Public Review: SOCWA has prepared a proposed Mitigated Negative Declaration (MND) which will be considered for certification by the Board of Directors at its meeting to be held on February 4, 2016 at 8:30 a.m. at SOCWA's office at 34156 Del Obispo Street, Dana Point, CA, 92629. Comments from members of the public or other interested parties on the Initial Study and proposed MND will be received by SOCWA from October 30, 2015 through December 15, 2015. Written comments should be directed to the contact person listed below. Copies of the Initial Study and proposed Mitigated Negative Declaration are available for review at the address shown below.

Contact Person: James L Burror Jr, P.E.
SOCWA
34156 Del Obispo Street
Dana Point, CA 92629
949-234-5402

San Juan Basin Authority

Foundational Actions Fund Project – Fact Sheet 01



Introduction

The San Juan Basin Authority (SJBA) was created in 1971 for the purpose of carrying out water resources development of the San Juan Basin. The SJBA member agencies are the Santa Margarita Water District (SMWD), Moulton Niguel Water District (MNWD), South Coast Water District (SCWD), and The City of San Juan Capistrano (CSJC).

SJBA Mission Statement

"To develop and maintain a reliable, high quality economical local water supply for the residents in the San Juan Basin by maximizing water use through management of local ground and surface water of San Juan Creek and its tributaries, with due consideration for preservation, enhancement, and conservation of the environment, including, but not limited to, the natural resources, fish and wildlife, infrastructure improvements, and the cultural heritage of the area."

In 2014, SJBA adopted the San Juan Basin Groundwater and Facilities Management Plan (SJBGMP) that was prepared by Wildermuth Environmental. The report utilized numerous previous reports and management plans completed within the basin to provide a comprehensive description and understanding of the basin resources, demands, and management alternatives. The recommended management alternative included adaptive production management, in-stream stormwater recharge, near-stream stormwater recharge, recycled water recharge, and control of seawater intrusion.

Foundational Actions Fund (FAF) Grant

In 2013 SJBA, in conjunction with the Municipal Water District of Orange County (MWDOC), submitted a proposal to the Metropolitan Water District of Southern California (Metropolitan) for a *Foundational Actions Fund (FAF) Grant* to evaluate the feasibility of implementing the recommended management alternative from the SJBGMP.

The Agreement between Metropolitan and MWDOC was executed on January 30, 2014. MWDOC's current role is the coordinating funding agency between SJBA and Metropolitan. The Agreement extends from January 30, 2014 through June 30, 2017.

FAF Project Objectives

The objective of the FAF grant project is to analyze options for sustainable, long-term use of an impaired watershed that is typical to Southern California. The FAF project elements include:

- A. Conduct Groundwater Modeling Studies for Proposed Seawater Extraction Barrier
- B. Conduct Hydraulic Investigations to Increase Stormwater Recharge
- C. Conduct Hydraulic Investigations to Recycled Water Recharge
- D. Develop Adaptive Production Management For Basin

Specific Project Tasks

The grant scope of work was subdivided into five (5) project tasks:

- Task 1 Project Management
- Task 2 Develop Preliminary Alternatives for Each Program Element:
 - 1. Develop Preliminary Extraction Barrier Alternatives
 - 2. Develop Preliminary Stormwater Recharge Alternatives
 - 3. Develop Preliminary Recycled Water Recharge Alternatives
 - 4. Develop Preliminary Adaptive Production Management Alternatives
- Task 3 Evaluate Feasibility of All Program Elements
- Task 4 Develop Implementation Plan
- Task 5 Prepare Project Report

Project completion is expected to be December, 2015 with long-term reporting to be completed to Metropolitan through June 30, 2017.



South Coast Water District
Providing Quality Water and Wastewater Services to the Coastal Communities



FAF Project Details

The FAF scope of work includes the development of several water use and reuse projects which will provide an additional source of groundwater to the basin with maximum sustainability of the resource. All projects include incorporation of adaptive management practices.

Storm and Recycled Water Recharge: In-stream / Near Stream Recharge

In-stream recharge alternatives include "T" and "L" levees as used by Orange County Water District on the Santa Ana River. Near or Off-stream recharge alternatives include rubber dams, recharge basins, and infiltration galleries along San Juan Creek or Arroyo Trabuco.

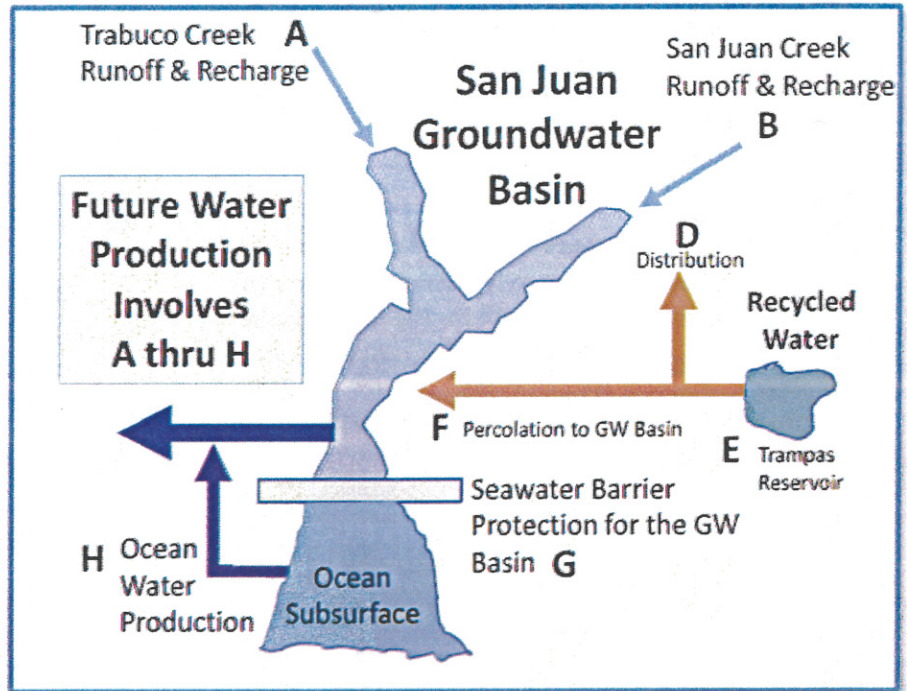


Diagram demonstrates how all projects will be combined to increase total basin production



Adaptive Production: Ranney-Type Well Options

Ranney-type radial collector wells can be used to achieve maximum groundwater capture with minimal lowering of the water table. Ranney wells are being evaluated for use at the junction of San Juan Creek and Trabuco Creek as an alternative to current traditional well extraction.

Seawater Barrier and Adaptive Production: Seawater Extraction Barrier

A vertical extraction well barrier is being evaluated for use in the southern portion of the San Juan Basin to create a barrier to future seawater intrusion into the groundwater basin, and to provide an additional source of approximately 4,000 Acre-feet/year of potable water.

FAF Project Budget

The FAF grant is a matching grant program with Metropolitan Water District of Southern California. Total FAF project budget is \$400,000 with a maximum reimbursement of \$200,000 from Metropolitan. All FAF project task items are being accomplished utilizing SJBA Participating Agency funds on a common equity basis (equal cost sharing). The FAF project budget for each task item is presented below.

	Total Project Cost	Maximum Cost to Metropolitan
Task 1 - Project Management	\$68,000	\$34,000
Task 2 - Develop Preliminary Alternatives for Each Program Element	\$64,400	\$32,200
Task 3 - Evaluate Feasibility of All Program Elements	\$162,400	\$81,200
Task 4 - Develop Implementation Plan	\$47,000	\$23,500
Task 5 - Prepare Project Report	<u>\$58,200</u>	<u>\$29,100</u>
Grand Total	\$400,000	\$200,000



San Juan Basin Authority

Foundational Actions Fund Project – Fact Sheet 02

Task 2: Develop Preliminary Alternatives for Each Program Element

Introduction

In 2013 The San Juan Basin Authority (SJBA), in conjunction with the Municipal Water District of Orange County (MWDOC), submitted a proposal to the Metropolitan Water District of Southern California (Metropolitan) for a *Foundational Actions Fund (FAF) Grant*. The Agreement between Metropolitan and MWDOC/SJBA was executed on January 30, 2014. MWDOC's current role is the coordinating funding agency between SJBA and Metropolitan. The Agreement extends from January 30, 2014 through June 30, 2017.

The objective of the FAF grant project is to analyze options for sustainable, long-term use of an impaired watershed that is typical to Southern California.

The grant scope of work and project objectives were subdivided into five (5) tasks:

- Task 1: Project Management and Administration
- Task 2: Development of Preliminary Alternatives for Each Program Element:
 1. Extraction Barrier Alternatives
 2. Stormwater Recharge Alternatives
 3. Recycled Water Recharge Alternatives
 4. Adaptive Production Management Alternatives
- Task 3: Evaluate Feasibility of All Program Elements
- Task 4: Develop Implementation Plan
- Task 5: Prepare Project Report

This fact sheet outlines the project scope, objectives, and completed work within Task 2: Develop Preliminary Alternatives for Each Program Element.

Task 2: Scope and Objectives

Task 2.1 Develop Design Criteria, Cost Estimating Methodology and Identify Potential Project Participants and Points of Delivery

Objectives:

- Identify and obtain agreement on facility design and operating criteria and assumptions;
- Obtain agreement on the cost and financial assumptions to be used in the preparation of cost opinion; and
- Identify potential purchasers of the water, where they would take delivery, and the capacity limitations at the points of delivery.

Task 2.2 Develop Preliminary Extraction Barrier Alternatives

Objective: Develop up to three extraction barrier alternatives that will prevent seawater intrusion and increase local supplies by intercepting and treating seawater induced landward by the extraction barrier wells.

Task 2.3 Develop Preliminary Storm Water Recharge Alternatives

Objective: Identify the range of storm water recharge alternatives overlying the San Juan Basin and formulate up to six recharge alternatives for detailed analysis in Task 3.

Task 2.4 Develop Preliminary Recycled Water Recharge Alternatives

Objective: Identify the range of recycled water recharge alternatives overlying the San Juan Basin and formulate up to six recharge alternatives for detailed analysis in Task 3.

Task 2.5 Develop Preliminary Adaptive Production Management Alternatives

Objectives:

- Identify the range of adaptive production management alternatives that include existing and new wells and expanded groundwater treatment to enable groundwater production to be increased to exploit the existing basin as well as possible storm and recycled water recharged as part of this project; and
- Determine how production should be managed during critical dry periods.

Task 2.6 Develop a Presentation Summarizing Preliminary Program Elements

Objective: Prepare a comprehensive presentation with notes to document the history of the project and the results of Task 2-1 through 2-5. This presentation is also used in Task 2.7 and will be made available to all stakeholders for their subsequent review and use.

Task 2.7 Review Program Elements with SJBA Board, Other Stakeholders, DPH, SWRCB and the RWQCB

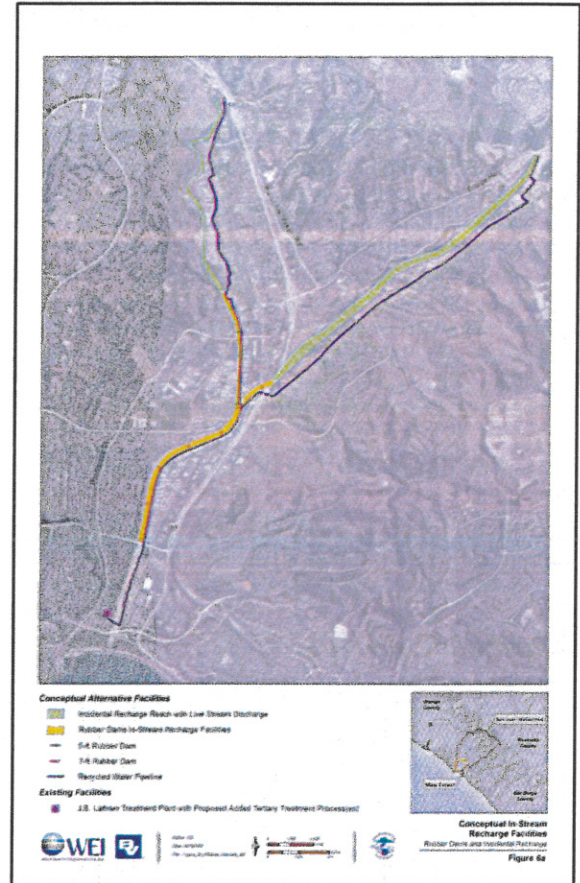
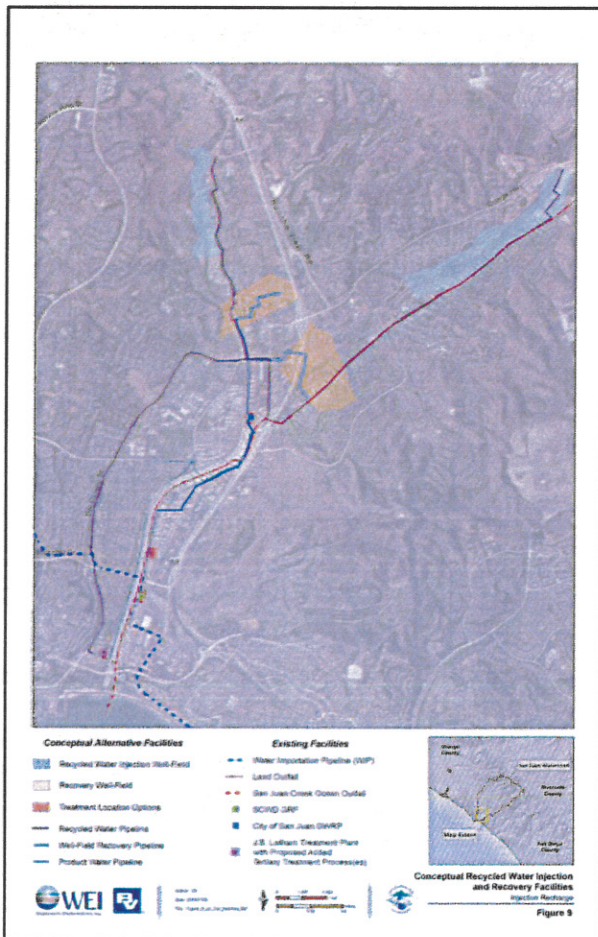
Objective: Conduct one or more workshops with the above mentioned parties to summarize Task 2 results, answer questions, and receive comments or suggestions.

Task 2: Accomplishments

The SJBA and their consultant team have completed several projects in support of development of program element alternatives:

Tasks 2.3 / 2.4 - Stormwater and Recycled Water Recharge Alternatives

- ✓ Completed Groundwater Recharge Alternative Studies
- ✓ Completed Recycled Water Source & Treatment Alternative Studies
- ✓ Completed Geotechnical Data Review to further understand groundwater recharge and transfer between the upper and lower basins across/through bedrock mound and the Christianitos Fault
- ✓ Completing Recycled Water Delivery System Options
- ✓ Completed Remote Sensing Analysis (Using LANDSAT Imagery) to evaluate groundwater recharge and rate of movement through upper and middle basins
- ✓ Completed Geophysical Studies to determine the characteristics of the basin for groundwater flow



Tasks 2.2 / 2.5 - Seawater Barrier and Adaptive Production Alternatives

- ✓ Completed Vertical Extraction/Production Well Analysis
- ✓ Completed 2012-2014 Basin Model Updates (Groundwater flow model for the San Juan Basin) - Updated model to include data through 2014
- ✓ Evaluating Continued Drought Impacts, Seawater Intrusion, and Reduced Groundwater Production
- ✓ Evaluating “Water Banking” and “Potable Water Use” for Extracted Saline/Brackish Water

Tasks 2.7 - Technical Memorandum: Draft Preliminary Alternative Descriptions for the San Juan Basin Groundwater and Desalination Optimization Program Elements

The draft technical memorandum is currently out for review.