

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

608



FROM: Executive Office

SUBMITTAL DATE:

April 22, 2016

SUBJECT: Departmental Quarterly Water Conservation Update. All Districts [\$0]

RECOMMENDED MOTION: That the Board of Supervisors receive and file the attached Departmental Quarterly Water Conservation Update.

BACKGROUND:

Summary

The attached Departmental Quarterly Water Conservation Update highlights the current and ongoing efforts that each applicable county department has undertaken in the past three months to conserve water where possible. El Niño predictions for increased precipitation in Southern California have not materialized as originally thought; however Northern California reservoirs have made substantial gains in storage (see attached Metropolitan Water District update) due to a persistent northerly storm track. Consequently, periods of exceptional warmth in the months of February and March tapered off the county's rising trend in water savings compared to the previous update. County departments continue their commitment to find ways to maximize water savings, educate stakeholders, and leverage grant opportunities where feasible in order to reduce the county's overall water consumption.


Steven Horn
Principal Management Analyst

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (per Exec. Office)
COST	\$ 0	\$ 0	\$ 0	\$ 0	Consent <input checked="" type="checkbox"/> Policy <input type="checkbox"/>
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0	

SOURCE OF FUNDS: N/A

Budget Adjustment: N/A

For Fiscal Year: N/A

C.E.O. RECOMMENDATION:

APPROVE

BY:

Alex Gann

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Ashley, seconded by Supervisor Washington and duly carried by unanimous vote, IT WAS ORDERED that the above matter is received and filed as recommended.

Ayes: Jeffries, Tavaglione, Washington, Benoit and Ashley
Nays: None
Absent: None
Date: May 17, 2016
xc: E.O.

Kecia Harper-Ihem
Clerk of the Board

By: 
Deputy

Prev. Agn. Ref.: 2.1 of 1/12/2016

District: ALL

Agenda Number:

2-5

Departmental Concurrence

A-30 ☐ Positions Added ☐
4/5 Vote ☐ Change Order ☐

**SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
FORM 11: Quarterly Water Conservation Update. All Districts [\$0]**

DATE: April 22, 2016

PAGE: 2 of 2

Background Continued:

On May 9, 2016 Governor Brown issued Executive Order B-37-16 (Order) which updates temporary water restrictions contained in previous Emergency Proclamations and Executive Orders, and begins to transition them to permanent, long term improvements. The highlights of this Order include directing the State Water Resources Control Board (SWRCB) to: adjust current emergency water conservation regulations, work with the Department of Water Resources (DWR), urban water supplies, local governments, and others to develop new water use targets as part of a permanent framework for urban water agencies. Furthermore, the Order notes that the SWRCB shall permanently prohibit:

- Hosing off of sidewalks, driveways, and other hardscapes;
- Washing automobiles with hoses not equipped with a shut-off nozzle;
- Using non-recirculating water in a fountain or other decorative water feature;
- Watering lawns in a manner that causes runoff, or within 48 hours of measurable precipitation; and
- Irrigating ornamental trees on public street medians

Additionally, the Order states that DWR will be tasked with strengthening requirements for urban Water Shortage Contingency Plans and subsequently work with affected stakeholders to implement such requirements. Further, DWR will work with the California Department of Food and Agriculture and other relevant stakeholders to update existing requirements for Agricultural Water Management Plans and require that such plans are prepared and adhered to by water suppliers with over 10,000 irrigated acres of land.

The full text of Governor's Executive Order B-37-16 may be accessed here:
https://www.gov.ca.gov/docs/5.9.16_Executive_Order.pdf

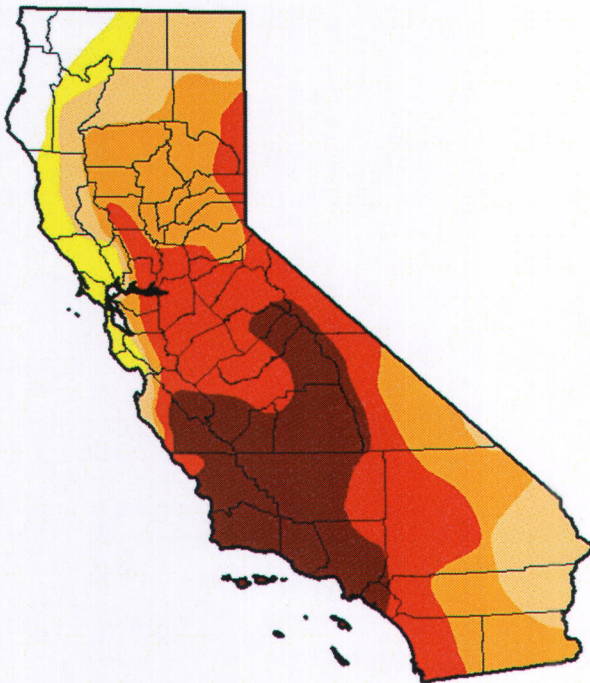
In light of this recent Order, it should be noted that county departments continue their adherence to current prohibitions (as bulleted above) from the previous Executive Orders concerning the elimination of water waste and increasing water use efficiency. The requirement for the SWRCB to make these measures permanent should have little to no effect on county departments.



Riverside County Departmental Water Conservation Update

As shown in the graphic below, the majority of California, including Riverside County, remains in a moderate to extreme drought condition. This condition has improved since the previous water conservation update in January of 2016; the positive change attributed to increased rainfall in Northern California. However, Southern California, including Riverside County, didn't receive similar increases in rainfall. Conversely, Southern California and Riverside County experienced significant dry and warming trends in February and March. As elaborated on the following pages, County departments continue their effort to reduce water consumption where possible; provide informational outreach to the regulated business community, and strengthening of partnerships with local water agencies. The County Executive Office, together with multiple county departments, continues to stay engaged with the Riverside County Water Task Force.

U.S. Drought Monitor California



May 3, 2016

(Released Thursday, May. 5, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	4.27	95.73	89.68	74.37	49.15	21.04
Last Week 4/26/2016	4.24	95.76	90.09	74.37	49.15	21.04
3 Months Ago 2/2/2016	0.00	100.00	95.26	86.13	63.90	39.41
Start of Calendar Year 12/29/2015	0.00	100.00	97.33	87.55	69.07	44.84
Start of Water Year 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
One Year Ago 5/5/2015	0.14	99.86	98.28	93.91	66.60	46.77

Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs

National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>



Riverside County Departmental Water Conservation Update

Departmental Water Conservation Status Updates

Economic Development Agency/Facilities Management (EDA/FM)

The EDA Energy Division continues its collaboration with Western Municipal Water District (WMWD) to provide recycled water for irrigation to the Department of Public Health facility located at 14539 Innovation Drive, in Riverside (RV0376). WMWD has conducted several successful tests on the proposed system and submitted those to the State Water Board for review and approval. Once approved by the State Water Board, WMWD will connect the new recycled water supply, where appropriate. WMWD's goal is to have recycled water to the site and the surrounding area within the next 6 months.

The Energy Division is also giving scrutiny to water bills and alleged drought fines. Where the water budget or drought fines are suspect, division staff is challenging the validity of the bill. In many cases, the water agencies do not have the correct building information or accurate landscaping square footage. Some water agencies are backlogged with similar requests for changes.

In partnership with the Maintenance Division, the Energy Division is participating in Metropolitan Water District's Public Agency Landscape Program. This program will fund the installation of high efficiency water devices at various county facilities. This program is unique in that it provides the County with initial funding to do the work. After all rebates have been received, work will begin. The following facilities have been identified as prime candidates for efficiency measures. Results of these efforts will be reported in the subsequent quarters.

Riverside Historical Court House	4050 Main St
Presley Detention Center	4000 Orange St
Fleet Services	4293 Orange St
Public Defender	4200 Orange St
Veterans Services	4342 Orange St
Downtown Law Building	3960 Orange St
Riverside County Innovation Center	3450 14th St
Simons Building	3610 11th St
Law Library	3535 10th St
Criminal Justice Building	3575 11th St
Transportation Land Management Agency	3525 14th St
Riverside County Administrative Center	4080 Lemon St
District Court	3470 12th St
12th St Parking Structure	3535 12 St



Riverside County Departmental Water Conservation Update

Department of Environmental Health (DEH)

The Department of Environmental Health continues to promote water conservation efforts with its on-going education and outreach both on our website and during routine inspections of food and pool facilities that we regulate. Our staff continues to provide informational bulletins related to water conservation, gray water usage, and to assist those impacted by the drought as it pertains to programs under our authority.

Flood Control and Water Conservation District (District)

The District continues to tune and refine countywide water conservation website to assist residents and businesses with links to Riverside County specific water conservation rebates, tools and other information. It may be accessed here:

<http://www.floodcontrol.co.riverside.ca.us/DroughtPortal/Default.aspx>

The District continues to seek out partnership and grant opportunities for storm water capture projects. Our grant supported Bautista Recharge Basin expansion partnership with Lake Hemet Water District is also ongoing. The District is also collaborating with local water agencies on non-grant funded projects to increase the stability and safe yield of local water resources by repurposing existing and future District facilities. These partnerships include:

- Western Municipal Water District: Arlington Desalter Expansion.
- City of Riverside: Evaluation of Columbia, Marlborough, Box Springs and Kansas basins for recharge potential.
- City of Corona: Coldwater Canyon groundwater recharge enhancement study and Lincoln/Cota Basin Diversion Project
- Eastern Municipal Water District: San Jacinto River Recharge Basins
- Lake Hemet Water District: Little Lake Basin Recharge Retrofit
- Elsinore Valley Municipal Water District: Elsinore Line A Basin Recharge Project

The District has also just completed infiltration and percolation testing of several other dams and detention basins to determine their recharge viability. This information will be shared with local water agencies in an effort to identify additional partnership opportunities. To date, the District estimates that, through these partnerships with local water agencies, approximately 25,000 acre feet of storm water have been recharged into area aquifers to the benefit of Riverside County residents.



Riverside County Departmental Water Conservation Update

Regional Parks and Open Space District (Parks)

Parks has completed or has several ongoing measures to enhance their water conservation programs and outreach throughout their areas of responsibility. These measures include:

- Turf Conversion: Completed conversion of turf to pagers and drought tolerant plants at The Cove Waterpark and received reimbursement from Jurupa Community Services District. Continued to abandon ornamental turf in non-active areas of parks. See photographs on the following page.
- Turf Management: continued reduced irrigation frequencies between 25% and 50% from the prior year. All irrigation systems have been turned off when rain was in the forecast.
- Indoor Measures: repaired plumbing leaks and broken sprinkler heads at all park and recreation facilities.
- Public Education: Continued outreach to customers regarding water conservation efforts at all facilities.
- Other outdoor conservation: Splash pads and water park facilities have been turned off for the winter. Additionally, Lake Skinner's splash pad will be reconstructed with newer equipment, which will increase the water use efficiency and reduce water runoff of this very popular attraction.



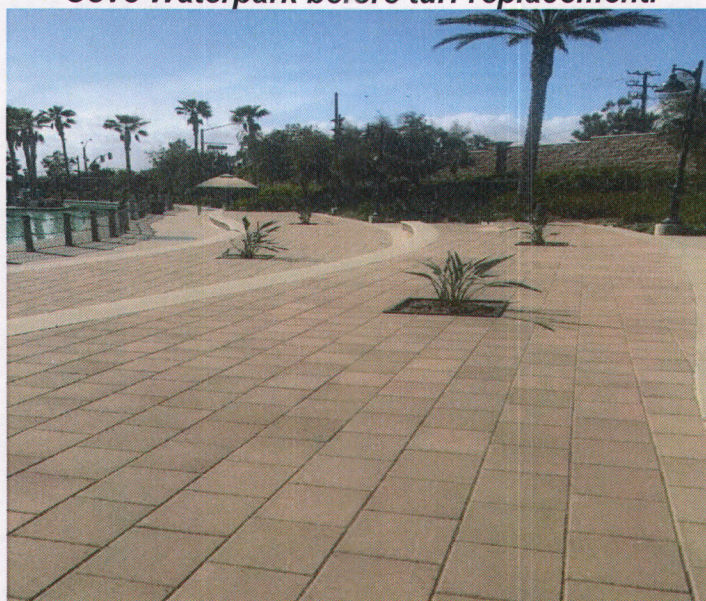
Riverside County Departmental Water Conservation Update



Park District Headquarters/Crestmore Manor – water conservation signage.



Cove Waterpark before turf replacement.



Cove Waterpark after turf replacement project.



Riverside County Departmental Water Conservation Update

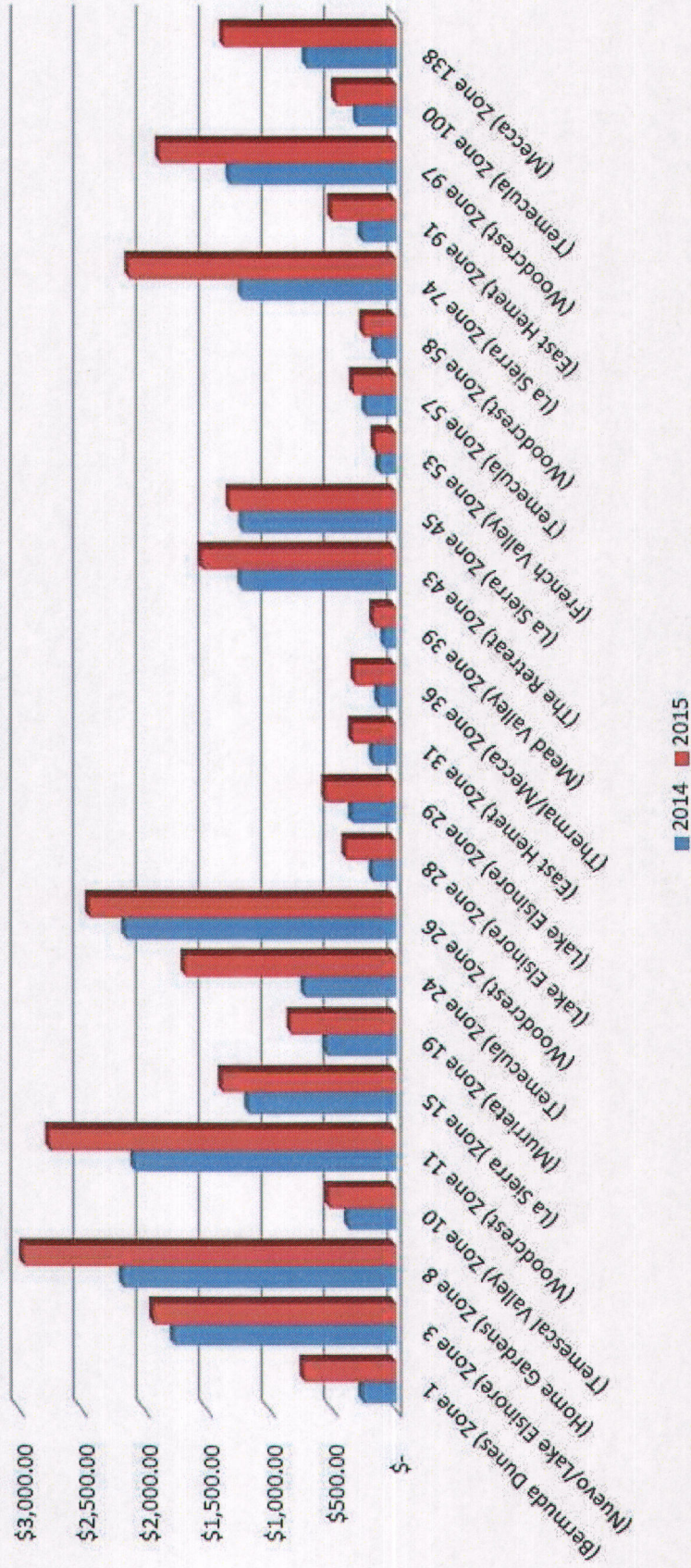
Transportation Department (Trans)

As the administrator for County Maintained Landscape and Lighting Maintenance District 89-1-Consolidated, Trans reports increased usage of water for landscaping during this period compared to the same period last year as shown in the graphs on the following pages. This is likely due to detrimental plant health and the periods of heat during February and March. Trans will continue to monitor the use within the consolidated zones and make adjustments as necessary in order to balance water use and plant health.



Riverside County Departmental Water Conservation Update

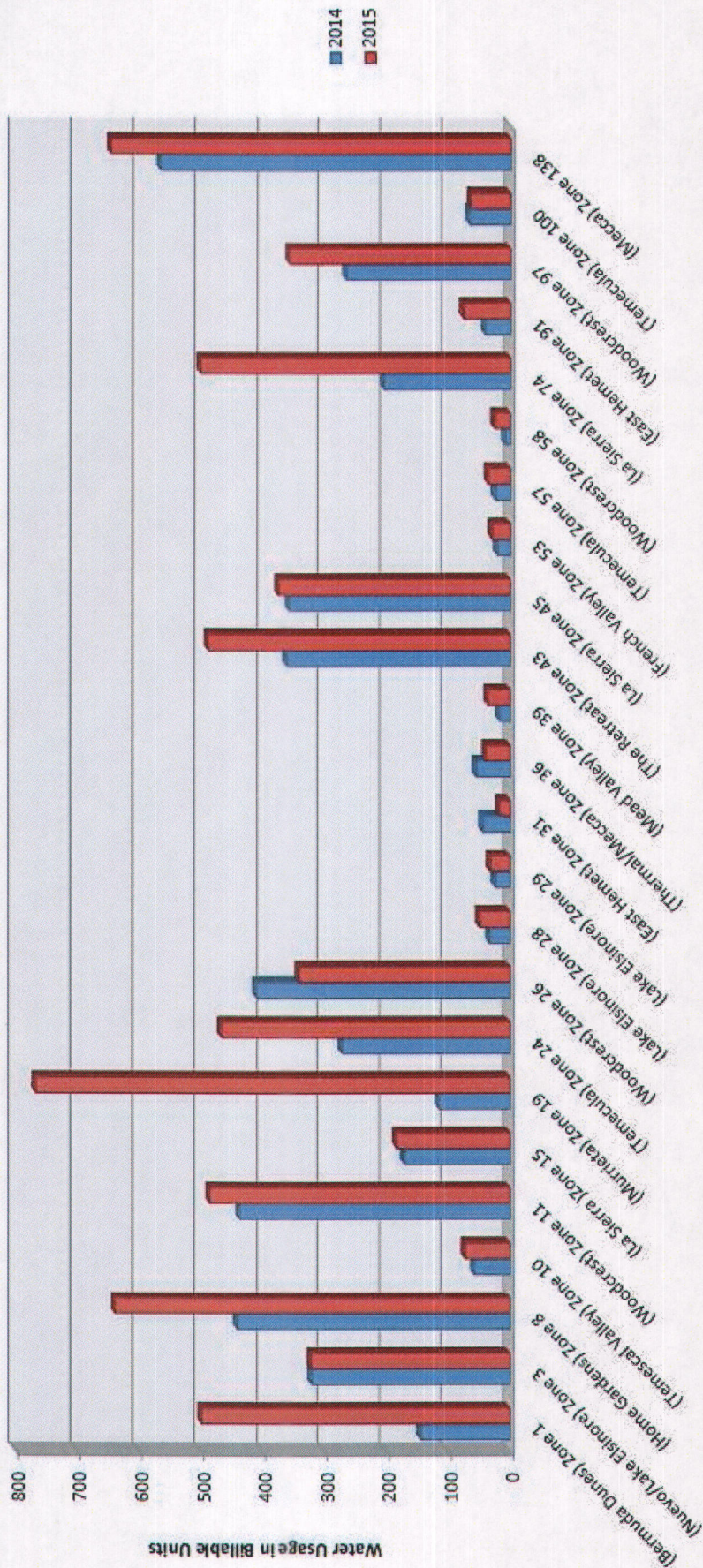
County Maintained L&LMD 89-1-Consolidated Zones November, December & January Water Costs





Riverside County Departmental Water Conservation Update

County Maintained L&LMD 89-1-Consolidated Zones
November, December & January
Water Usage





Riverside County Departmental Water Conservation Update

Water Use Reductions

The matrix below represents the current water use reductions, with corresponding fee increases or decreases for the departments that manage a majority of the water use at County facilities.

Dep.	Base Year Q3 FY 2014-2015 Usage CCF*	Current Year Q3 FY 2015-2016 Usage CCF	Usage Reduction (%)	Base Year Q3 FY 2014- 2015 Cost	Current Year Q3 FY 2015- 2016 Cost	Cost Reduction (%)
EDA/FM	171,085	178,658	-4%	\$ 504,238.00	\$ 539,259.00	-7%
Parks	45,939	24,869	46%	\$ 54,178.00	\$ 49,279.00	9%
TLMA	4,446	6,539	-47%	\$ 18,993.00	\$ 27,040.00	-42%
<i>Total</i>	221,470	210,066	-2%	\$ 577,409.00	\$ 615,578.00	-13%

**1 CCF = 748 Gallons*

Total Gallons Saved this Quarter: **8,530,192**
Compared to last year (same period)

Total Cost *Increase* this Quarter: **\$ 38,169.00**
Compared to last year (same period)

As shown in the above table, the county departments collectively saved ~8.5M gallons of water during this period, even though some uses increased. The minor increases in water uses led to an increased cost of ~\$38,000 compared to the same period last year. EDA/FM and TLMA will continue optimizing and evaluating their systems to ensure that water reduction strategies are incorporated into daily operations to the maximum extent practical.

Ordinance 859.3 Update

On July 21, 2015, the Board unanimously approved adoption of Ordinance 859.3, an Urgency Ordinance of the County of Riverside amending ordinance 859.2 Water Efficient Landscape Requirements. This ordinance update took effect immediately, and among other provisions, prohibited the use of natural turf grass in front yards of new residential subdivisions. Staff is proposing to bring a clean-up revision addressing new and revised State requirements that took affect December 1, 2015 to the Board during the second quarter of 2016 and report on its implementation. The State requirements referenced are those in the revised California Code of Regulations Title 23, Division 2, Chapter 2.7. Model Water Efficient Landscape Ordinance (MWEL0).

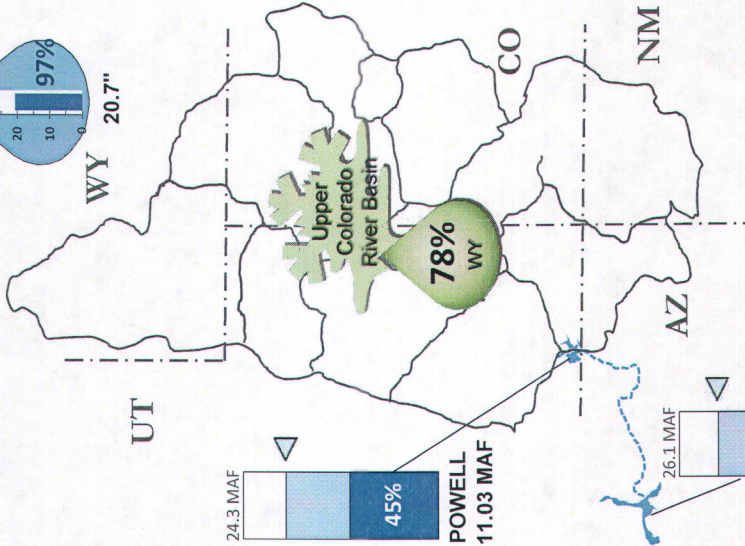
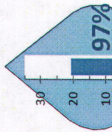


WATER SUPPLY CONDITIONS CRA

As of: 05/01/2016



2016 Colorado River
865,000 AF
69% of full CRA
Does not include storage withdrawals or exchanges

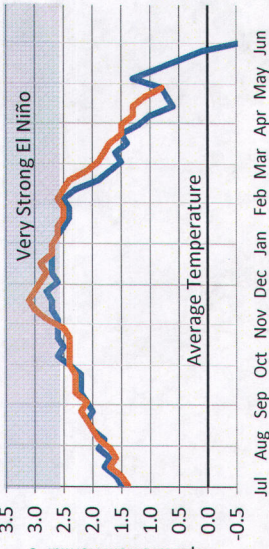


Turn page for more CRA Data

Flip Over for SWP Data

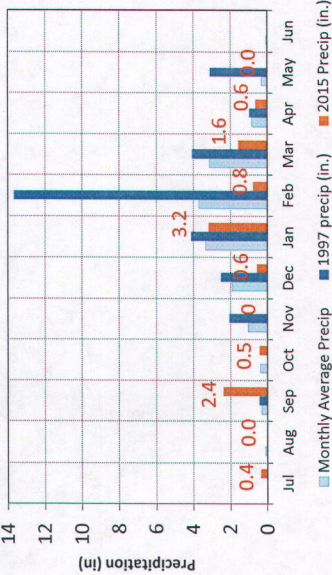
Sea Surface Temperature

Pacific Ocean Niño Region 3.4



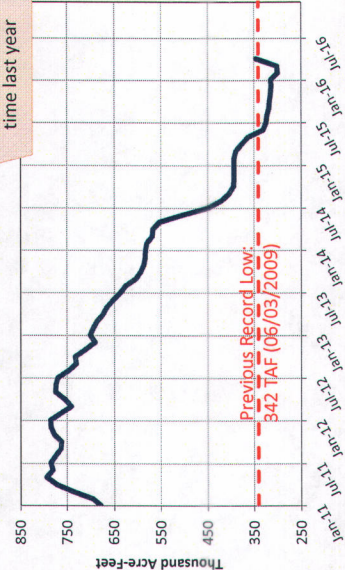
1997-98 vs. 2015-16 El Niño Signal

Downtown Los Angeles Precip

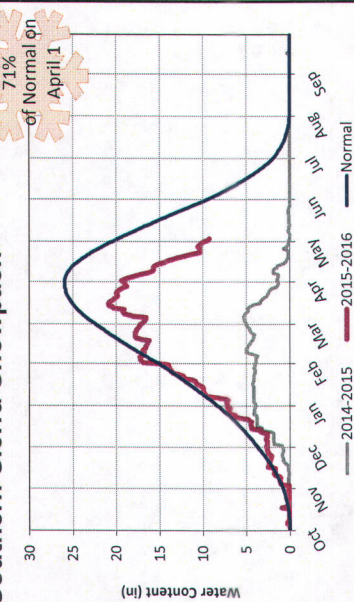


Diamond Valley Lake Storage

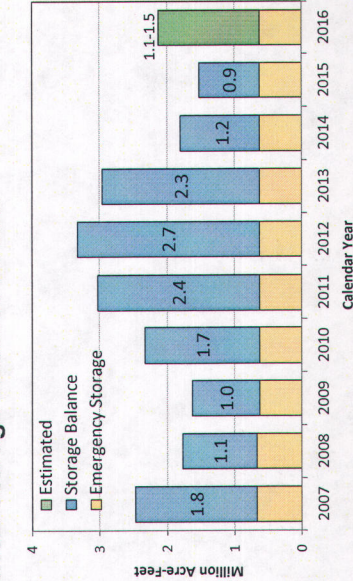
Capacity: 810 TAF



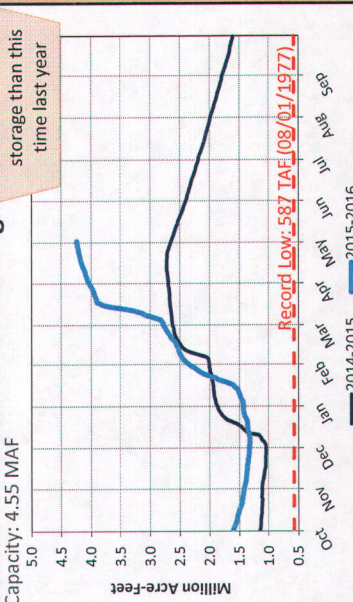
Southern Sierra Snowpack



MWD Storage Reserve Levels



Lake Shasta Reservoir Storage



This report is produced by the Water Resource Management group and contains information from various federal, state, and local agencies. The Metropolitan Water District of Southern California cannot guarantee the accuracy or completeness of this information. Readers should refer to the relevant state, federal, and local agencies for additional or for the most up to date water supply information. Reservoirs, lakes, aqueducts, maps, watersheds, and all other visual representations on this report are not drawn to scale.

<http://www.mwdh2o.com/WSCR>

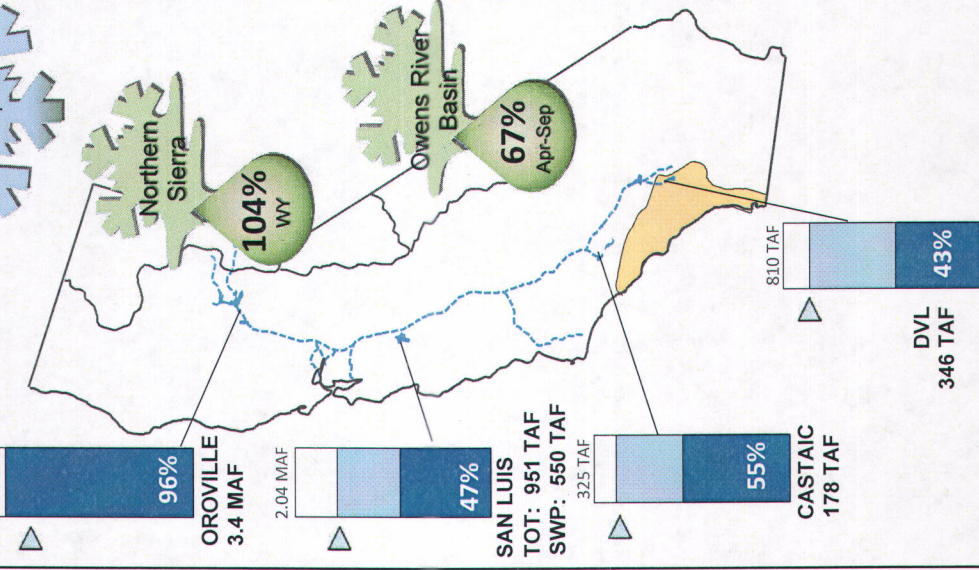
This report is best printed double sided on legal size paper (8.5" x 14") and folded in quarters



WATER SUPPLY CONDITIONS SWP

As of: 05/01/2016

2016 SWP Allocation
1,146,900 AF
60% of Table A



Turn page for more SWP Data

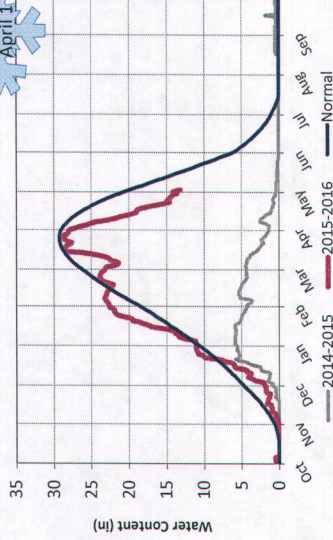
Flip Over for CRA Data

State Water Project Resources

As of: 05/01/2016

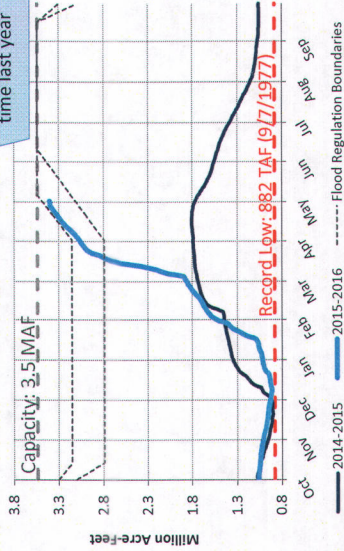
Northern Sierra Snowpack

95% of normal on April 1



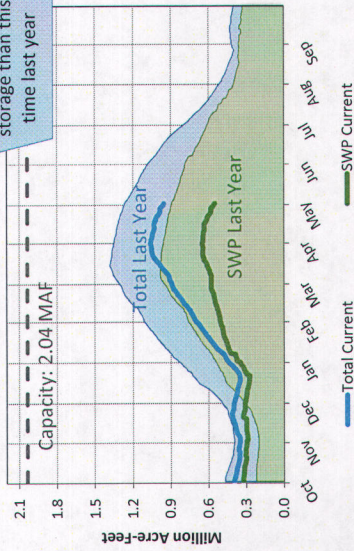
Oroville Reservoir Storage

1.63 MAF more in storage than this time last year



San Luis Reservoir Storage

339 TAF less in SWP storage than this time last year

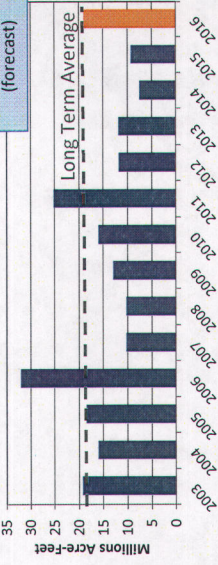


Other SWP Contract Supplies for 2016 (AF)

Transfer Supplies	TBD
Multi Year Pool	7,000
Pool A/B (Purchased)	0
Article 56 (Prior Cal. Year(s) CO)	2,400

Sacramento River Runoff

WY 2016 104% of normal (forecast)

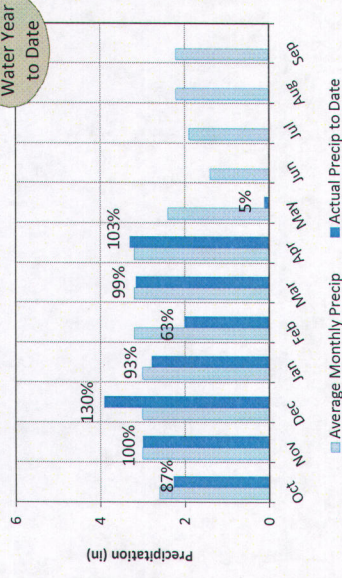


Colorado River Resources

As of: 05/01/2016

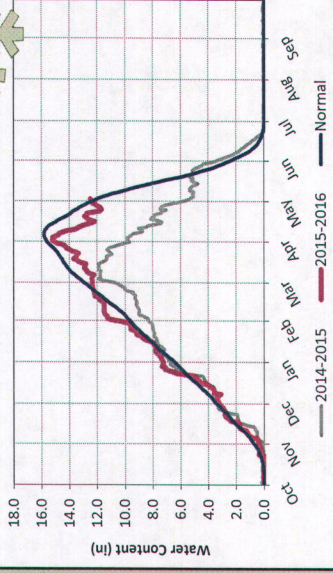
Upper Colorado Basin Precip

20.7 in. Water Year to Date

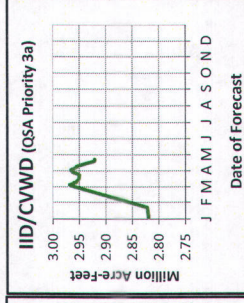
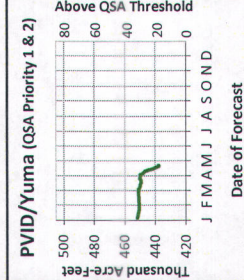


Upper Colorado Basin Snowpack

97% of normal on April 1



Colorado River Ag Use Forecast



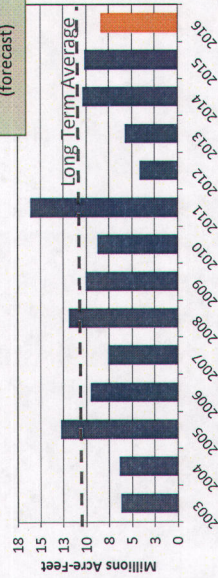
Lake Mead Shortage/Surplus Outlook

	2017	2018	2019	2020	2021
Shortage	10%	56%	64%	64%	61%
Surplus	0%	<1%	4%	8%	12%

Likelihood based on results from the April 2016 USER MTOM/Colorado River Simulation System model run

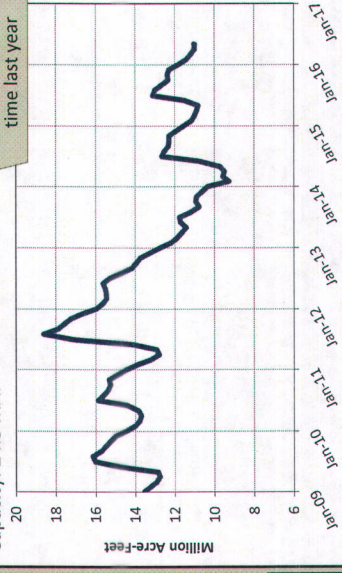
Powell Unregulated Inflow

WY 2016 78% of normal (forecast)



Lake Powell Storage

Capacity: 24.3 MAF



Lake Mead Storage

Capacity: 26.1 MAF

