



# Yucaipa Valley Water District

## Notice and Agenda of a Board Workshop

Tuesday, February 24, 2015 at 4:00 p.m.

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MEETING LOCATION:	District Administration Building 12770 Second Street, Yucaipa
MEMBERS OF THE BOARD:	Director Ken Munoz, Division 1 Director Bruce Granlund, Division 2 Director Jay Bogh, Division 3 Director Lonni Granlund, Division 4 Director Tom Shalhoub, Division 5

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- I. **Call to Order**
- II. **Public Comments** At this time, members of the public may address the Board of Directors on matters within its jurisdiction; however, no action or significant discussion may take place on any item not on the meeting agenda.
- III. **Staff Report**
- IV. **Presentations**
  - A. Presentation of Findings and Recommendations from a Water and Sewer System Energy Efficiency Audit of District Facilities [[Workshop Memorandum No. 15-023 - Page 9 of 145](#)]
  - B. Presentation on the Issuance of \$30,810,000 Refunding Revenue Bonds for the Refinancing of the 2004A Certificates of Participation [[Workshop Memorandum No. 15-024 - Page 27 of 145](#)]
  - C. Presentation on the Digester Cover and Piping Replacement Project at the Wochholz Regional Water Recycling Facility [[Workshop Memorandum No. 15-025 - Page 41 of 145](#)]
  - D. Presentation on the Implementation of the 2014 Water Bond - Proposition 1 [[Workshop Memorandum No. 15-026 - Page 42 of 145](#)]
- V. **Capital Improvement Projects**
  - A. Status Report on the Construction of a 6.0 Million Gallon Drinking Water Reservoir R-12.4 - Calimesa [[Workshop Memorandum No. 15-027 - Page 77 of 145](#)]
  - B. Status Report on the 2015 Water Pipeline Replacement Program [[Workshop Memorandum No. 15-028 - Page 79 of 145](#)]

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Any person with a disability who requires accommodation in order to participate in this meeting should telephone Erin Anton at (909) 797-5117, at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

Materials related to an item on this agenda submitted to the Board of Directors after distribution of the workshop packet are available for public inspection during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting material is also be available on the District's website at [www.yvwd.dst.ca.us](http://www.yvwd.dst.ca.us)

**VI. Administrative Items**

- A. Ratification of Beaumont Basin Watermaster Monitoring and Reporting Expenses  
[\[Workshop Memorandum No. 15-029 - Page 93 of 145\]](#)
- B. Discussion Regarding the Proposed “Ad Hoc” State of the Regional Water Supply Workshop Proposed by the San Geronio Pass Water Agency [\[Workshop Memorandum No. 15-030 - Page 127 of 145\]](#)

**VII. Director Comments****VIII. Closed Session**

- A. Conference with Labor Negotiator (Government Code 54957.6)  
District Negotiator: Joseph Zoba, General Manager  
Employee Organization: IBEW Local Union 1436-YVWD Employees Association
- B. Conference with Labor Negotiator (Government Code 54957.6)  
District Negotiator: Joseph Zoba, General Manager  
Employee Organization: YVWD Supervisory Employees
- C. Conference with Labor Negotiator (Government Code 54957.6)  
District Negotiator: Joseph Zoba, General Manager  
Employee Organization: YVWD Management Employees (Exempt)

**IX. Adjournment**

# Staff Report



Yucaipa Valley Water District

## State's Population Growth Expected to Outstrip Water Conservation in Coming Years

BY MATT WEISER AND PHILLIP REESE - MWEISER@SACBEE.COM

02/14/2015 10:00 AM & 02/15/2015 8:30 PM



Tom Farr of Sparks, Nev., uses a metal detector last month to find valuables lost in what is normally covered by water but now is exposed in South Lake Tahoe. The lake has dropped about a foot, exposing the muddy surface and many docks. RANDY PENCH / RPENCH@SACBEE.COM

California water agencies are on track to satisfy a state mandate to reduce water consumption 20 percent by 2020. But according to their own projections, that savings won't be enough to keep up with population growth just a decade later.

A 2009 state law requires urban water agencies to reduce per-capita water consumption 20 percent by 2020, compared with use at the start of the century. Most agencies are on track to reach that goal, and have made even more progress thanks to emergency cuts over the past year triggered by the ongoing drought.

However, by 2030, the data show, these savings will be more than erased by anticipated population growth. According to projections by the water agencies themselves, their total water deliveries will increase 16 percent by 2030 compared to their estimates for 2015.



California's population, already larger than all other Western states combined, is expected to grow 14 percent during that same period, reaching an estimated 44 million people by 2030, according to the state Department of Finance.

If those projections hold, the result would be an additional 1 million acre-feet of water demand statewide – about equal to the capacity of Folsom Reservoir – by 2030. This would occur even as people use less water to meet the 20 percent reduction goal.

“We are having a hard time managing the scarce water we have now,” said Newsha Ajami, director of urban water policy at Water in the West, a research group at Stanford University. “The problem is, every time the drought ends we snap out of it, and we don't actually start planning for the next drought. We need to help people understand what this means for future generations.”

In January 2014, Gov. Jerry Brown signed an emergency drought proclamation calling on all Californians to cut their water use 20 percent compared with 2013 in response to the worsening drought. This temporary measure is different from the 2020 goal, which is meant to be a permanent reduction in water use compared to what Californians were consuming in a base year, which for most water agencies is 1999.

To comply with the 2020 mandate, urban water agencies are required every five years to submit water management plans to the state Department of Water Resources. Among other things, these plans estimate each agency's future water demand out to 2035. The demand estimates are based on projected population growth, as well as anticipated development patterns and water consumption levels unique to each agency's local service area.

The Sacramento Bee reviewed plans submitted by more than 370 agencies in 2011 and compiled a database on the water demand projections. The results show that, collectively, urban water agencies expect demand to grow 16 percent by 2030 and continue growing beyond that. This would eclipse the 2020 goal by nearly 1 million acre-feet, potentially adding significant new water demand in the next drought.

“Clearly, we're going to have to do more,” said Tracy Quinn, a policy analyst at the Natural Resources Defense Council who specializes in California water policy. “The key to this is our water sources don't increase as population grows. If population is to grow, we need to figure out a way to do it with that same amount of water.”

### Hot climates, big growth

The water agency projections come with uncertainty, largely because they were prepared as the recession dramatically reduced growth in the state. The population growth water agencies anticipated in the 2011 reports may have been too great, along with the resulting projections of increased water demand. The next round of reporting, due in 2016, may produce different results.

On the other hand, slow growth may be one reason water agencies are making good progress toward meeting the 2020 conservation target. Almost all of them easily met the interim target of a 10 percent reduction by 2015. A return to faster growth could reduce that progress.

“There are a lot of people who think the economy has a big impact on water use,” said Peter Brostrom, chief of DWR's water use efficiency branch. “If there's a real big upturn in the economy that could potentially increase water use.”

Water districts forecast the total number of water customers in the state to increase about 20 percent from 2015 to 2030, according to the surveys. Many of the largest increases are expected in the state's hottest climates, areas where water demand is generally greater.

Large Southern California water districts in Coachella, Highland, Rialto, Indio, Palmdale and inland San Diego all predict water demand increases of greater than 50 percent between 2015 and 2030.

Several Central Valley water districts also predict significant growth. The cities of Tulare, Madera and Merced, along with the Sacramento County Water Agency and the El Dorado Irrigation District, each anticipate water consumption to grow by at least 40 percent between 2015 and 2030.

Among large, local districts, Folsom predicts a 30 percent increase; Roseville predicts a 23 percent rise; and city of Sacramento officials predict a 10 percent increase.

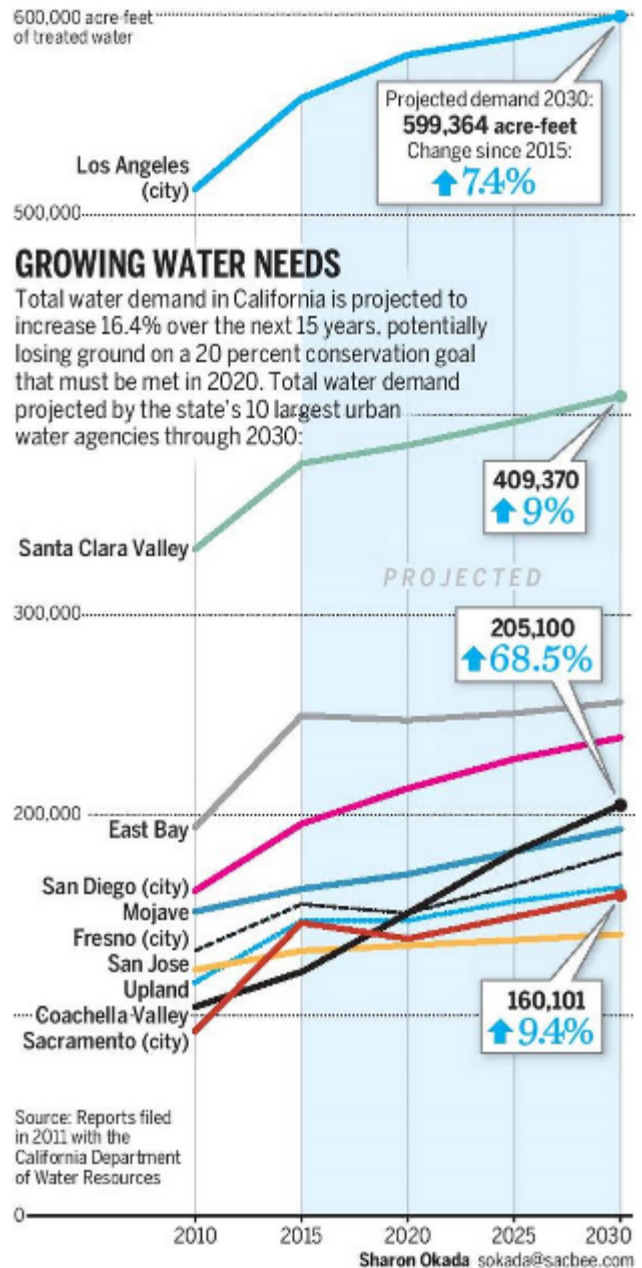
Statewide, water disttaffRICTS anticipate commercial water use to increase 18 percent; single-family residential water use to rise 16 percent; and multifamily residential water use to rise 21 percent.

Under current law, urban water agencies face no required conservation targets beyond 2020, but a Water Action Plan released last year by Gov. Jerry Brown vows to develop new conservation targets for the years beyond.

"We fully anticipate there will be further targets after 2020," Brostrom said. "The goal is to hold the total volume of urban water use to be the equivalent of roughly what it was in 2000."

State plans stronger role

The state also plans to give water agencies more direction in how to prepare their demand projections. In many cases, agencies hire a consultant to prepare the projections and rarely check for accuracy, Quinn said. She has audited a number of the water management plans and found many inconsistencies in how water demand projections fit with expected growth.



Some water agency leaders contacted by The Bee acknowledged they don't know very much about their own demand projections.

John Tillotson, director of public works at the Olivehurst Public Utility District in Yuba County, said a consultant was hired to prepare the district's urban water management plan. He couldn't recall what the demand projections were when asked about it recently.

"I don't have any information as far as the growth that we predicted," Tillotson said. "If it ever happens – and that's a big 'if' – it would take quite a long time."

Tillotson's district predicted one of the highest growth rates in the state: a 172 percent increase in water demand from 2015 to 2030. This was based on the planned construction of 8,000 new homes at Plumas Lake, a massive subdivision north of Sacramento that will be entirely served by groundwater wells managed by the district. Construction came to a standstill during the recession and only recently started back up.

"It's anybody's guess as to when those homes will be here, if ever," Tillotson said. "It might be 10 years, it might be 20, it might be never. We have capacity in that area right now, and we have a planning document that will support the growth."

Gregory Weber, executive director of the California Urban Water Conservation Council, said water agencies throughout the state understand they will have to work harder on conservation. If anything, the current drought has made that clearer.

Conservation is often the first option water agencies choose to accommodate growth, rather than seeking out new water supplies. Conservation and other options – such as recycling stormwater and wastewater – are almost always cheaper than buying water, building dams or drilling wells.

"There's general recognition on the part of members throughout the state that, if you've got restrictions on supply, the only way you can pay for growth is by investments in efficiency, conservation or water recycling," said Weber, whose group represents hundreds of urban water suppliers. "I've never heard anybody say, 'We'll hit 20 percent by 2020, and then we're done.' "

The Pacific Institute and Natural Resources Defense Council recently completed a report, called "Untapped Potential," that reveals lots of opportunity left in California to conserve water.

Simply switching commercial and residential customers to the latest high-efficiency appliances and plumbing fixtures could save 5 million acre-feet per year, according to the report. That's enough to serve more than 10 million households. Stopping leaks, adding more water recycling and stormwater capture, and reducing water use for landscaping could boost total savings to 13 million acre-feet.

"We do have enough water available to meet the demands of a growing population," Quinn said. "We just have to be more innovative in the ways that we're using the water that we have."

*Call The Bee's Matt Weiser at (916) 321-1264. Follow him on Twitter [@matt\\_weiser](https://twitter.com/matt_weiser).*

*Read more here:*

<http://www.sacbee.com/news/local/environment/article10311635.html#storylink=cpy>

# Presentations



Yucaipa Valley Water District



**Date:** February 24, 2015

**Subject:** Presentation of Findings and Recommendations from a Water and Sewer System Energy Efficiency Audit of District Facilities

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The Yucaipa Valley Water District recently completed an energy audit at the wastewater treatment plant, water filtration facility, and administrative offices with the Energy Network. The Energy Network is a third-party engineering consultant firm, authorized by the California Public Utilities Commission, to assist residents, businesses, and the public sector to achieve energy savings. At no cost to the District, Lincus and the Energy Network performed an audit of District facilities with input and participation by District staff members. The audit resulted in the identification of potentially beneficial savings to the District.

At the board workshop, the District staff and our project partners will discuss the following elements of the proposed energy saving initiative:

- **Turnkey Project Delivery** - A full range of energy efficiency services have been specifically tailored for the Yucaipa Valley Water District.
- **Comparative Energy Analysis** - The comparative energy analysis report has prioritized sites for the implementation of energy retrofit projects.
- **Project Manager and Energy Consulting Team** - Representatives from Lincus and the Energy Network will manage and oversee all required project tasks. Experienced engineering staff will be assigned to work with District staff and provide technical assistance during the project.
- **Financing Services** - The recommended energy efficiency measures along with a detailed financial analysis of the energy savings and costs will assist the decision-making process.
- **Energy Efficiency Retrofit Design** - Preparation of performance-based technical specifications and a scope of work for the selected projects will expedite construction procurement for energy retrofit construction services from a pool of quality electrical and mechanical contractors. Local contractors are selected through a transparent and competitive bid process. The project manager requests a cost proposal from the assigned contractor and facilitates a rigorous third-party review by technical experts for accuracy.
- **Construction by Quality Contractors/Construction Management Support** - Facilitation of construction management with additional oversight and administrative support. A quality engineer will assist the District staff and construction management staff.
- **Post-Construction Support** - Receipt of project manual of installed systems, including access to a web-based energy information management system (EEMIS) to monitor, analyze and benchmark facility energy usage.

During the workshop presentation, representatives from the Energy Network, Lincus and Southern California Edison will be available to provide an overview of the proposed project. If the Board of Directors is interested in pursuing these energy saving projects, additional refinement of the project scope of services and contracts will be initiated by District staff with assistance from our project partners.





# Project Proposal Yucaipa Valley Water District

## Project Summary



This project proposal summarizes the findings and recommendations of audits conducted by Lincus, Inc. on behalf of The Energy Network and the SCE WISE Program for Yucaipa Valley Water District (YVWD). YVWD staff defined an audit scope of work provided at no cost to the city that evaluated energy efficiency opportunities at the Henry R. Wochholz Regional Water Recycling Facility, several booster pumps throughout the water distribution system, the Headquarters Building, and other district facilities including lighting and mechanical building efficiency measures. By implementing the full suite of recommended measures, YVWD can reduce energy costs by an estimated \$132,350.95 per year, at a project cost of \$405,664 after energy utility rebates totaling \$113,152. SCE offers On Bill Financing (OBF) to allow for repayment on future utility bills, resulting in a cash positive investment from Year 1.

## Project Benefits

- Capture **\$113,152** in utility incentives
- Save **\$29,848** in free services through The Energy Network
- Reduce greenhouse gas emissions equal to taking **1,537** cars off the road
- Improve equipment safety and reliability
- Improve occupant comfort
- Reduce maintenance costs
- Position YVWD as a community leader
- Hedge against increasing utility costs

<b>Estimated Annual Savings</b>	<b>Estimated Savings Over Project Lifetime</b>	<b>Cost of Delay</b>
<b>\$132,350.95</b>	<b>\$1,252,534</b>	<b>\$11,029</b> per month <b>\$132,351</b> per year

## Project Financial Summary

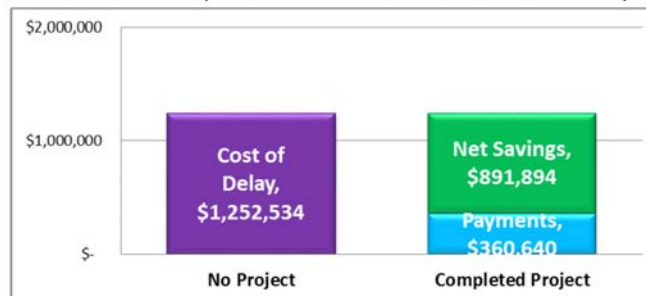
Project Costs	
Gross Project Cost	\$518,816
Reimbursable Costs	
Incentives/ Rebates	(\$113,152)
Available OBF	(\$403,332)
<b>Net Project Cost</b>	<b>\$2,332</b>

Additional costs, such as construction management or staff time, are not included in this table.

Project Financial Metrics	
Net Present Value (NPV)	\$846,870
NPV with OBF & cash	\$891,783
NPV completely financed	\$891,894
Savings to Investment Ratio (SIR)	3.09
Simple Payback Period (SPP)	3.1 years
<b>Return on Investment (ROI)</b>	<b>141.4%</b>

## Projected Savings

By financing the project, YVWD will maintain a positive annual cash flow over the life of the project.





## Project Proposal

Yucaipa Valley Water District

### Project Milestones and Activities

Utilizing the Turnkey Project Delivery Model, The Energy Network will assist your agency with completing your energy efficiency projects in an expedited manner, with an anticipated construction start date of September 2015.

Milestone	Date
Draft Project Proposal Approval	March 2015
Incentive & OBF Application Submission	April 2015
Contractor Selection	May 2015
Draft Scope of Work approval	June 2015
Joint Scope Walk	June 2015
Work Order Package Approval	July 2015
Council/Board Approval Date	July 2015
Construction Start Date	October 2015

### Turnkey Project Delivery and the National Joint Powers Alliance (NJPA)

The Energy Network's Turnkey Project Delivery approach is believed to be the least expensive option for project implementation when the entire life cycle costs are considered. The NJPA managed the competitive bid process on behalf of Southern California agencies for energy efficiency projects, will award construction contracts, and manages the contractor's contracts that utilize The Energy Network's Turnkey model. YVWD is not currently an NJPA member, but registration is simple and fast.

NJPA is Government serving Government as a public agency governed by publicly elected board of directors that has the legislative authority to facilitate the competitive bidding process for other agencies. Membership is at no cost, no obligation, and with no liability.

James Ferro, The Energy Network's Project Manager for YVWD, can provide information and resources to help your agency determine how the Turnkey Project Delivery procurement strategy will work with your agency's procedures. Best, Best & Krieger's (BB&K) public agency practice represents hundreds of public agencies and encompasses public works and construction, including public contracting and energy efficiency projects. BB&K can provide agencies with sample documents and templates to facilitate the use of NJPA resources to expedite contracting for energy efficiency project.




### Energy Savings Measures

Project/Facility	Customer Account #	Service Account #	Energy Efficiency Measure	kWh Savings	kWh Savings (IDU)	kw Savings (IDU)	kw Savings (IDU)	Therm Savings (IDU)	Therm Savings (IDU)	Gross Project Cost	Estimated SCE Incentive	Estimated SCG Incentive
EEM1 WWTP Control Offices	5125125	131605	Install Outside Air Economizers and Controls	5,585	6,585	0.00	0.00	0.00	0.00	\$14,033	\$527	\$0
EEM2 WWTP Control Offices	5125125	131605	Replace electric water heater with heat pump water heater	4,087	4,087	0.00	0.00	0.00	0.00	\$7,543	\$327	\$0
EEM3 WWTP Control Offices	5125125	131605	Computer Power Management	1,840	1,840	0.00	0.00	0.00	0.00	\$975	\$75	\$0
EEM4 Headquarters Admin. Office	5125125	450245	Install Outside Air Economizers and Controls	14,557	8,827	0.00	0.00	0.00	0.00	\$25,976	\$385	\$0
EEM5 Headquarters Admin. Office	5125125	450245	Replace Water Heater with Instantaneous Unit	-	-	0.00	0.00	44.40	44.40	\$1,700	\$0	\$489
EEM6 Headquarters Admin. Office	5125125	450245	Computer Power Management	5,530	5,520	0.00	0.00	0.00	0.00	\$790	\$225	\$0
EEM7 Headquarters Office	5125125	450245	Retrofit All Linear Fluorescent Luminaires with Electronic Ballasts and T-8 Lamps and Install Occupancy Sensors	10,329	5,173	4.85	1.45	-16.40	-5.66	\$11,651	\$607	\$0
EEM8 Headquarters Office	5125125	450245	De-lamp and Retrofit Linear Fluorescent Luminaires with Electronic Ballasts and T-8 Lamps	3,099	4,290	1.15	1.25	-4.92	-4.69	\$2,117	\$1,065	\$0
EEM9 Headquarters Office	5125125	450245	Replace Incandescent lamps with Integral LED lamps and Install Occupancy Sensors	533	533	0.35	0.15	-0.63	-0.63	\$955	\$85	\$0
EEM10 Headquarters Office	5125125	450245	Exterior Perimeter Lighting Retrofit with LED fixtures	3,587	3,587	0.00	0.00	0.00	0.00	\$966	\$287	\$0
EEM11 Filtration Facility	5125125	51251	Retrofit All Linear Fluorescent Luminaires with Electronic Ballasts and 25W T-8 Lamps and Install Occupancy Sensors	15,212	8,042	4.35	2.44	-20.00	-10.84	\$5,734	\$569	\$0
EEM12 WWTP Control Offices	5125125	131605	Retrofit All Linear Fluorescent Luminaires with Electronic Ballasts and T-8 Lamps and Install Occupancy Sensors	10,797	3,238	3.51	0.91	-4.08	-4.28	\$7,451	\$332	\$0
EEM13 WWTP Control Offices	5125125	131605	De-lamp and Retrofit Linear Fluorescent Luminaires with Electronic Ballasts and T-8 Lamps	4,289	4,561	1.38	1.33	-6.81	-4.97	\$2,243	\$1,040	\$0
EEM14 WWTP Control Offices	5125125	131605	Replace Incandescent lamps with Integral LED lamps and Install Occupancy Sensors	793	790	0.24	0.19	-0.91	-0.91	\$354	\$70	\$0
EEM15 WWTP Control Offices	5125125	131605	Exterior Perimeter Lighting Retrofit with LED fixtures	12,005	3,195	0.00	0.82	0.00	0.00	\$946	\$480	\$0
EEM16 YVWD Well 44	5125125	000-4502-32	EEM1 Pump Efficiency Improvement - Custom zed (PM-90890)	118,147	118,147	17.89	17.89	0.00	0.00	\$43,750	\$12,134	\$0
EEM17 YVWD 17.3 Booster Pump	5125125	001-8563-35	EEM3 VFD Application on 17.3 Booster Pump (PM-35845)	23,088	23,088	3.60	3.60	0.00	0.00	\$5,200	\$2,388	\$0
EEM18 YVWD WWTP	5125125	131605	EEM1 Blower Efficiency Improvement (PR-90435)	520,835	520,839	78.89	78.89	0.00	0.00	\$295,449	\$62,501	\$0
EEM19 YVWD WWTP	5125125	131605	EEM2 ORP & DO Sensor Control of Blowers (PR-17454)	210,979	210,979	3.67	3.67	0.00	0.00	\$75,572	\$25,317	\$0
EEM20 YVWD WWTP	5125125	131605	EEM3 Mixed Liquor Recycle Optimization (PM-29644)	36,313	36,313	4.22	4.22	0.00	0.00	\$14,562	\$4,358	\$0
<b>Totals</b>				<b>1,002,539</b>	<b>969,575</b>	<b>124.10</b>	<b>116.81</b>	<b>-9.33</b>	<b>11.63</b>	<b>\$ 518,816</b>	<b>\$ 112,672</b>	<b>\$ 480</b>



**Cash Flow Analysis**

The Energy Network provides expert guidance identifying financing opportunities available for public agencies and applying and securing them for eligible agencies. Options that are available to YVWD include: Cash, On-Bill Financing (OBF) and The Energy Network’s Energy Project Lease Financing (ELF).

On-Bill Financing allows local public agencies to finance energy efficiency projects with zero-interest and pay back the loan as part of their utility bill for up to a 10-year period. To take advantage of OBF, a public agency must meet eligibility criteria and enroll in incentive programs from the utilities. Energy Project Lease Financing, a product authorized by the Public Utilities Commission, is designed specifically for local public agencies to fund energy projects. Agencies can take advantage of low interest rates and terms up to 15 years (up to 20 years for renewable energy projects). Financing is provided through private lenders and may be used in conjunction with other utility or public financing and incentives. A financial advisor is available through The Energy Network to meet with the City staff and discuss financing options. See FAQs for more details on Energy Lease Financing.

Year	Incentives, OBF, ELF	Est. Utility Savings	Est. Maintenance Savings	Total Cash Inflows	Est. Total ELF Payment	Est. SCE OBF Payment	Est. SCG OBF Payment	Total Cash Outflows	Net Cash Flows
0	\$516,484			\$516,484				(\$518,816)	(\$2,332)
1		\$121,975	\$10,376	\$132,351	N/A	(\$114,153)	\$0	(\$114,153)	\$18,198
2		\$126,854	\$10,584	\$137,437	N/A	(\$114,153)	\$0	(\$114,153)	\$23,284
3		\$131,928	\$10,796	\$142,723	N/A	(\$106,780)	\$0	(\$106,780)	\$35,943
4		\$137,205	\$11,011	\$148,216	N/A	(\$45,422)	\$0	(\$45,422)	\$102,795
5		\$141,300	\$11,207	\$152,507	N/A	(\$6,011)	\$0	(\$6,011)	\$146,496
6		\$146,952	\$11,431	\$158,383	N/A	(\$5,028)	\$0	(\$5,028)	\$153,356
7		\$152,830	\$11,660	\$164,490	N/A	(\$5,028)	\$0	(\$5,028)	\$159,462
8		\$158,943	\$11,893	\$170,836	N/A	(\$5,028)	\$0	(\$5,028)	\$165,809
9		\$61,199	\$4,159	\$65,358	N/A	(\$1,730)	\$0	(\$1,730)	\$63,628
10		\$63,647	\$4,242	\$67,889	N/A	\$0	\$0	\$0	\$67,889
11		\$61,236	\$3,327	\$64,564	N/A	\$0	\$0	\$0	\$64,564
12		\$63,686	\$3,394	\$67,080	N/A	\$0	\$0	\$0	\$67,080
13		\$66,233	\$3,462	\$69,695	N/A	\$0	\$0	\$0	\$69,695
14		\$68,068	\$3,336	\$71,404	N/A	\$0	\$0	\$0	\$71,404
15		\$70,791	\$3,403	\$74,193	N/A	\$0	\$0	\$0	\$74,193
16		\$7,926	\$440	\$8,367	N/A	\$0	\$0	\$0	\$8,367
17		\$8,243	\$449	\$8,693	N/A	\$0	\$0	\$0	\$8,693
18		\$8,573	\$458	\$9,031	N/A	\$0	\$0	\$0	\$9,031
19		\$8,916	\$467	\$9,383	N/A	\$0	\$0	\$0	\$9,383
20		\$9,273	\$477	\$9,749	N/A	\$0	\$0	\$0	\$9,749
21		\$0	\$0	\$0	N/A	\$0	\$0	\$0	\$0
22		\$0	\$0	\$0	N/A	\$0	\$0	\$0	\$0
23		\$0	\$0	\$0	N/A	\$0	\$0	\$0	\$0
24		\$0	\$0	\$0	N/A	\$0	\$0	\$0	\$0
25		\$0	\$0	\$0	N/A	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$1,615,776</b>	<b>\$116,575</b>	<b>\$1,732,350</b>	<b>\$0</b>	<b>(\$403,332)</b>	<b>\$0</b>	<b>(\$403,332)</b>	<b>\$1,326,686</b>





## Energy Lease Financing FAQs

### How does Energy Project Lease Financing work compared to other energy efficiency financing programs like the utilities' On Bill Financing and the California Energy Commission's low interest loan?

Energy Project Lease Financing complements other financing tools such as On Bill Financing and CEC's loan. Agencies' needs vary and the mix of financing chosen to fund a particular efficiency project may differ. Some of the advantages of the CPUC authorized Energy Project Lease Financing are:

- No up-front capital is needed since the financing closes prior to construction
- Projects without utility incentives may be funded
- There is no maximum limit for financing
- Longer terms of up to 15 years are available, reducing annual payments

### What are the repayment terms?

Repayments are typically structured with level semi-annual payments over the term of the loan, but other structures may be requested. The repayment term is determined by the weighted useful life of the project. An additional contribution resulting from received incentive funds may be included in the repayment schedule if requested by the agency at the time of application.

### What are the loan security requirements?

Loans are structured as equipment leases secured by the equipment or facilities in which the energy improvements are made. Improvements made to facilities with existing encumbrances may require an alternate security pledge.

### How do I apply?

Agencies must complete a simple application form with project data, basic financial information and estimated energy savings. Upon receipt of the application, The Energy Network will acquire a bid for lease interest rate and terms resulting in an Offer to Finance with indicative lease rates and terms.

### What are the criteria for loan approval?

The agency must submit completed documents and have verifiable credit standing. The borrower's financial statements must demonstrate the capacity to make lease payments, and its governing board must approve the borrowing prior to document closing and release of funds.

### How are funds disbursed?

Funds are held in an escrow account and paid out upon requisition by the agency.

### What projects are eligible?

Generally any energy efficiency, water-saving, renewable energy projects or other capital improvements are eligible. The Energy Project Lease Financing program was established to support funding for projects that demonstrate savings relative to existing operations; however, this is not a strict requirement.

### What is the funding source?

Funding for Energy Project Lease Financing is provided by a variety of private lending institutions that offer tax exempt lease financing through a broker. The Energy Network selected the broker through a competitive bidding process.

### How long does it take to get approved and obtain the funds?

Approval is typically provided within one week of a completed application being submitted. Funding documentation and closing can be completed within one week of governing board approval.

### Are there early payment penalties?

There may be early payment penalties. They are defined in the Offer to Finance. A standard payout option at five years may be requested by the Agency in the application.





# ABOUT US

*Contract Purchasing*



Working cooperatively...  
**TOGETHER**

# CONTRACT PURCHASING

## REALIZE THE POWER AND VALUE OF CONTRACT PURCHASING



**Chad Coauette**  
Executive Director/CEO  
chad.coauette@NJPAcoop.org  
218-894-5463

*We invite your organization to take the opportunity to join our member agencies that have access to national contract volume pricing and value from nationally acclaimed vendors. NJPA contracts represent thousands of competitively bid equipment, products and related services. NJPA contracts save you and your agency considerable time and money while eliminating the need to duplicate required steps of the bidding and contracting process. It takes only minutes to complete a no-cost, no-obligation or liability membership. Get started today at NJPAcoop.org.*

National Joint Powers Alliance® (NJPA) is established as a public agency serving our member agencies across the country as a municipal contracting agency. NJPA operates under the enabling authority of Minnesota Statute 123A.21. This statute was created in 1978 and revised in 1995 to allow participating government and education agencies to reduce the cost of purchased equipment and products by leveraging their combined national purchasing power through cooperative efforts.

NJPA is also guided and enabled by M.S. 471.59, the "Joint Exercise of Powers" Laws, which defines the ability of two or more government agencies to enter into an agreement to contract in common through the action of each of the governing bodies. In general, Joint Powers Laws state: "What two units of government and/or education can individually do for themselves, one can do for another." This includes the ability of agencies to enter into cooperative agreements. As such, we are a public agency serving our members from government, K12, higher education, and all non-profit agencies throughout the United States and Canada.

NJPA establishes and provides nationally leveraged and competitively solicited purchasing contracts under the guidance of the Uniform Municipal Contracting Law (M.S. 471.345 Subd. 15). The Joint Exercise of Powers Laws (M.S. 471.59) allow our members to legally purchase through our contracts without duplicating their own competitive bidding process and requirements. The result of this cooperative effort is a high quality selection of nationally leveraged, competitively bid contract solutions to help meet the ever challenging needs of our current and future member agencies.

We look forward to being a part of serving your agency needs through our contract solutions.



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## SERVICE IS OUR FOUNDATION

*At NJPA, we are driven to provide efficient public service through our national contract purchasing program of world class vendors. The common needs of our members and our desire to effectively serve your agency will lead our commitment and overall efforts as together we face the budget and purchasing challenges in the future.*

**OUR PURPOSE:** The general purpose of NJPA is to serve our member agencies by facilitating a national municipal contracting alliance. Our goal is to provide our members with requested programs and services that are created, coordinated and delivered through a cooperative effort between NJPA and our member agencies. **NJPA is a national organization that creates a business and service relationship alliance between buyers and suppliers.** Appropriate levels of membership are offered to government, education and all non-profit agencies nationwide and in Canada. Member agencies are responsible for interpreting their own purchasing laws and recognizing NJPA as having satisfied their own competitive bidding and contracting requirements.

**OUR MEMBER COMMITMENT:** NJPA is committed to serving you, our member agency, through a continuous effort to meet your present and future needs. Our goals are highlighted by our desire to provide valued national contract purchasing solutions. We will strive to identify and meet your needs in a measurable, cost-effective manner. We will research the industry with regard to our members' common needs, and as a result deliver to you the opportunity to purchase the very best products, equipment and services through nationally leveraged contracts offering our members the lowest possible contract price. We are only able to do this as we work together to develop business and member agency relationships, creating a unified purchasing alliance.

We look forward to working closely with you and your agency, listening to your needs and interests and responding by providing valued national and international contract solutions.

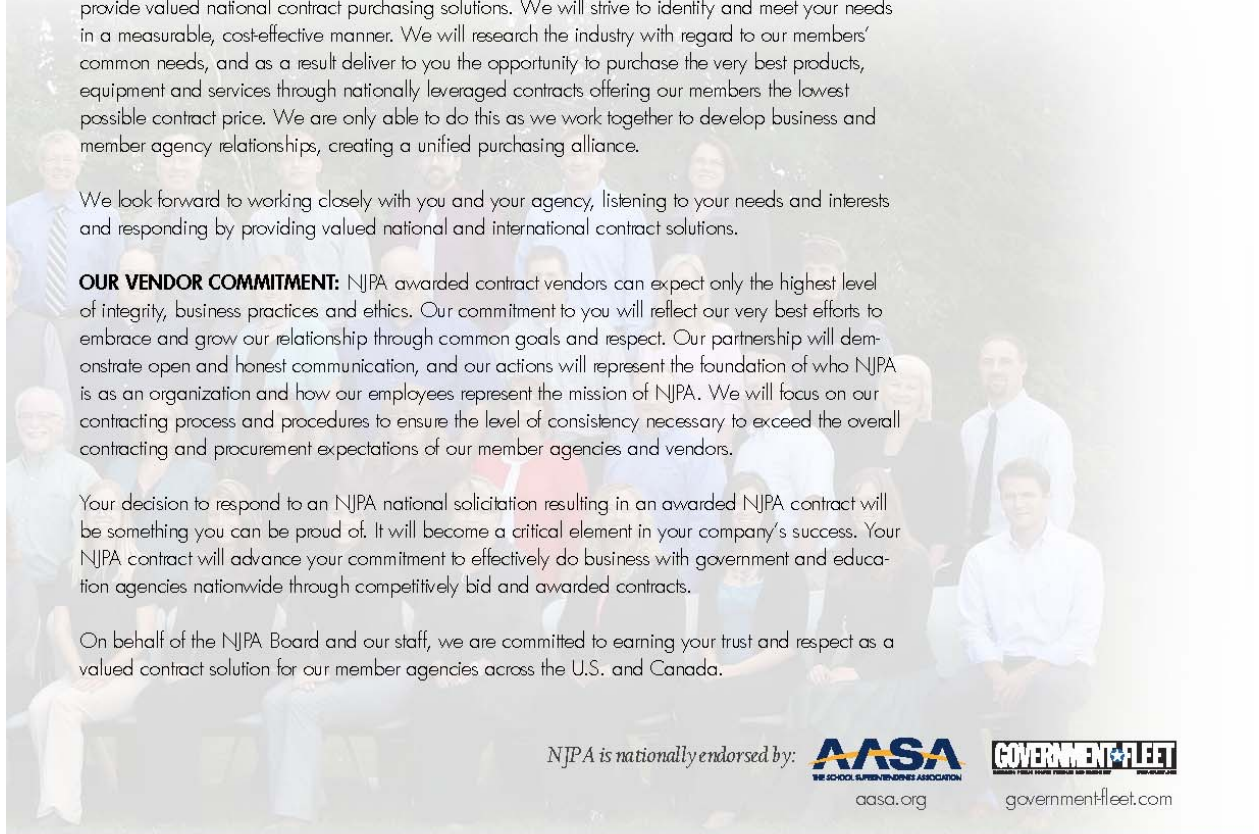
**OUR VENDOR COMMITMENT:** NJPA awarded contract vendors can expect only the highest level of integrity, business practices and ethics. Our commitment to you will reflect our very best efforts to embrace and grow our relationship through common goals and respect. Our partnership will demonstrate open and honest communication, and our actions will represent the foundation of who NJPA is as an organization and how our employees represent the mission of NJPA. We will focus on our contracting process and procedures to ensure the level of consistency necessary to exceed the overall contracting and procurement expectations of our member agencies and vendors.

Your decision to respond to an NJPA national solicitation resulting in an awarded NJPA contract will be something you can be proud of. It will become a critical element in your company's success. Your NJPA contract will advance your commitment to effectively do business with government and education agencies nationwide through competitively bid and awarded contracts.

On behalf of the NJPA Board and our staff, we are committed to earning your trust and respect as a valued contract solution for our member agencies across the U.S. and Canada.



**Mike Hajek**  
Director of Contracts  
& Marketing  
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218-894-5477



NJPA is nationally endorsed by:



## ENABLING LEGISLATION

### JOINT POWERS AUTHORITY LAWS

*NJPA members are generally authorized to use NJPA contracts through "Joint Exercise of Powers" Laws. These laws are a part of each state's laws but are worded slightly differently. In general, Joint Powers Laws state "What two units of government and/or education can individually do for themselves, one can do for another." Interpretation of these laws varies from individual to individual and from agency to agency and falls entirely on the responsibility of the member. NJPA therefore invites, evaluates and awards nationally leveraged, competitively bid and cooperatively shared procurement contracts for our current and potential membership nationwide.*

### SERVICE IS OUR STANDARD

As a unit of government, NJPA exists for the singular purpose of providing valued services to our member agencies. We engage our membership throughout our procurement process in an effort to stay in tune to their individual needs and interests. Members are encouraged to give us input and express their views on everything we do on their behalf. This includes which products and equipment to bid for, the process we use, how to evaluate, and finally, how our members judge the value of our contracts. We are driven to provide efficient public service through our national cooperative purchasing programs. Our common needs and the desire to serve your agencies will lead our efforts as we face the challenges of the procurement, business and industry communities both now and in the future.

### MEMBERSHIP WITH NJPA

Membership in NJPA is at no-cost, no-obligation or liability to "Participating Members" and can be established in the following ways:

- Online at: [NJPAcoop.org/join/application](http://NJPAcoop.org/join/application)
- Through hard copy participation membership application
- Through "Joint Exercise of Powers" or "Interlocal" agreement

### OUR FOUNDATION

#### MINNESOTA STATUTE 123A.21: SERVICE COOPERATIVES

This is the statute under which our "Service Cooperative" (SC) was created. Previously known as the North Central Service Cooperative (NCSC), we are now doing business as the National Joint Powers Alliance® (NJPA). Amendments to this legislation in 1995 expanded our potential participating membership to include any unit of government, education or non-profit agency.

- **M.S. 123A.21 Subd. 2** states the purpose of a service cooperative is to "assist in meeting specific needs of clients in participating governmental units which could be better provided by the service cooperative than by the members themselves."
- **M.S. 123A.21 Subd. 3: Membership and Participation** Full membership with a service cooperative shall be limited to public school districts, cities, counties and other governmental units as defined in section 471.59 and located within the designated five county area of Region Five in Minnesota. Participating members, in contrast, are non-voting members whom retain full right and title to cooperative purchasing contracts created by NJPA. The purpose of membership is to document the appropriate level of a "Joint Powers" relationship between NJPA and the participating member to qualify the use of NJPA cooperative purchasing contracts. Participating members have no cost, obligation or liability to the organizational liabilities of NJPA.
- **M.S. 123A.21 Subd. 7 (23)** identifies the specific directive for our service cooperative to provide "cooperative purchasing services" to our members.

- **M.S. 123A.21 Subd. 9 (d,e): Funding and benefit** “(d) the SC is a public corporation and agency and its board of directors may make application for, accept, and expend private, state and federal funds that are available for programs of the members.”  
**Organization by definition and limitations** “(e) The SC is a public corporation and agency and as such, no earnings or interest of the SC may incur to the benefit of an individual or private entity.”

## STATE OF MINNESOTA ENABLING LEGISLATION

*The following summary is an explanation of the enabling legislation referenced by NJPA. The plain language of the statutes, from our perspective, allows NJPA very clear authority to serve current and future members through cooperative efforts.*

### NJPA ENABLING LEGISLATION

- **Minnesota Statute 471.345: Municipal Contracting Law**  
 NJPA claims organizational status as a “Municipal Agency” under the authority of this definition and reference of 123A.21 Subd. 9 (d-e) Subd. 15 which defines “Cooperative Purchasing” abilities.
- **M.S. 471.345 Subd. 1: Municipality Defined**  
 For purposes of this section, “municipality” means a county, town, city, school district or other municipal corporation or political subdivision of the state authorized by law to enter into contracts.
- **M.S. 471.345 Subd. 15: Cooperative Purchasing**  
 Our national association, “National Joint Powers Alliance®” (NJPA), takes its name from this statute. A municipality may contract for the purchase of supplies, materials, or equipment without regard to the competitive bidding requirements of this section if the purchase is through a national municipal association’s purchasing alliance or cooperative created by a Joint Powers Agreement that purchases items from more than one source on the basis of competitive bids or quotations.

### MINNESOTA STATUTE 471.59: JOINT EXERCISE OF POWERS

Subd. 1 defines the ability of two governmental agencies to enter into an agreement to contract in common through the action of each of their own governing bodies. Subd. 10 expands on the ability to enter into cooperative agreements.

- **M.S. 471.59 Subd. 1: Agreement**  
 Two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised. The agreement may provide for the exercise of such powers by one or more of the participating governmental units on behalf of the other participating units. The term “governmental unit” as used in this section includes every city, county, town, school district, other political subdivision of this or another state, another state, the University of Minnesota, and any agency of the state of Minnesota or the United States, and includes any instrumentality of a governmental unit. For the purpose of this section, an instrumentality of a governmental unit means an instrumentality having independent policy making and appropriating authority.
- **M.S. 471.59 Subd. 10: Services Performed by Governmental Units; Commonality of Powers**  
 Notwithstanding the provisions of Subd. 1 requiring commonality of powers between parties to any agreement, the governing body of any governmental unit as defined in Subd. 1, may enter into agreements with any other governmental unit to perform on behalf of that unit any service or function which the governmental unit providing the service or function is authorized to provide for itself.



## FAQs

### FREQUENTLY ASKED QUESTIONS

#### Q. WHO IS NJPA?

A. NJPA is a public corporation or agency serving as a municipal contracting agency for government and education agencies. NJPA serves member agencies under the legislative authority established and granted by Minnesota Statute 123A.21 (see specific statutory references on pages 4-5). All NJPA employees are public employees whom are required to pay into Public Employment Retirement Association (PERA) through payroll deduction. NJPA employees have the same employment status as employees of NJPA government and education member agencies.

#### Q. WHAT IS NJPA'S PRIMARY PURPOSE?

A. Among other areas of serving members, NJPA creates national cooperative contract purchasing solutions on behalf of its member agencies which include all government, education and non-profit agencies nationwide and in Canada. These cooperative contract opportunities offer both time and money savings for their users by consolidating the efforts of numerous individually prepared solicitations to one national, cooperatively shared process. This process leverages the aggregation of volume from members nationwide.

#### Q. WHO IS ELIGIBLE FOR NJPA MEMBERSHIP?

A. Eligible members include any unit of government, education (K-12 and higher ed) or non-profit agencies nationwide.

#### Q. HOW IS NJPA GOVERNED?

A. NJPA is governed by the NJPA Board of Directors. The eight-member board is comprised of publicly elected governing officials; including school board, city council members and county commissioners from Region Five in Minnesota.

#### Q. HOW MUCH DOES IT COST TO PARTICIPATE IN NJPA?

A. There is no cost, no obligation or liability to join or participate in the NJPA contract purchasing program. There are no minimum contract purchasing requirements or commitments for members use of NJPA contracts.

#### Q. HOW IS NJPA FUNDED?

A. Vendors realize substantial efficiencies through their ability to respond to one NJPA solicitation and Request for Proposal (RFP) that will potentially earn thousands of sales opportunities. From these efficiencies, vendors pay an administrative fee to NJPA calculated as a percentage of sales processed through the competitively bid procurement contracts awarded and held by the vendor. This administrative fee is not an added cost to the member. This administrative fee covers the costs of contract marketing and facilitation and it offsets operating expenses incurred by NJPA. This fee may also be used for other purposes as allowed by Minnesota statute. NJPA does not receive state or federal aid or membership fees. With respect to cooperative contract purchasing, NJPA is a self-funded governmental unit. NJPA also shares these fees with certain other NJPA members, partner cooperatives or associations as they demonstrate the desire and ability to help facilitate and market available NJPA contracts. Administrative fees paid to NJPA are not an additional cost to NJPA members.

#### Q. HOW CAN WE JOIN AND PARTICIPATE IN NJPA AND ITS CONTRACTS AND SERVICES?

A. A membership can be initiated by: • Online membership application: [NJPAcoop.org/join/application](http://NJPAcoop.org/join/application) • Paper-based membership application • "Joint Exercise of Powers" or "Interlocal" agreement. Participating members are non-voting members of NJPA that are able to enter into Joint Powers Agreements. Non-profit organizations, non-public schools and other similar entities may join NJPA through an associate membership. Full voting memberships are limited to units of government or education located within the five county region of Minnesota which NJPA was originally created to serve.

#### Q. DOES NJPA HAVE A PROFESSIONAL PUBLIC PURCHASING BOARD OF ADVISORS?

A. Yes. At this point, all current members are a part of our Board of Advisors. NJPA also has multiple member advisory committees that specialize in various membership verticals. These verticals include our general membership represented by procurement professionals from our government and education agencies and others, such as fleet departments, food service departments, park and recreation departments and public utility departments.

## FREQUENTLY ASKED QUESTIONS

### Q. CAN AGENCIES OTHER THAN GOVERNMENT AND EDUCATION USE THE PROGRAM?

A. Yes, under M.S. 123A.21, all non-profit agencies may also participate.

### Q. WHAT SPECIFIC STATUTE GIVES MY AGENCY THE AUTHORITY TO PARTICIPATE?

A. Generally, joint powers and/or cooperative purchasing laws create the authority for members to work together with NJPA and accept NJPA procurement laws. These laws are a part of state law in every state, however, they are written slightly differently. Essentially, what these laws state is: "What two units of government can individually do for themselves, one can do for the other." NJPA membership forms are designed to help establish an appropriate agreement to comply with the Joint Powers Laws of our qualifying agencies.

### Q. WHAT ARE THE ADVANTAGES OF BEING A MEMBER OF NJPA?

A. • The competitive bidding and contract process is completed and satisfied on behalf of your agency. • National aggregation of product and equipment demand and volume resulting in aggressive and competitive pricing. • Choice of equipment, products and services is offered under awarded contracts featuring the highest quality solutions from industry-leading and nationally acclaimed vendors. • Members enjoy a broad range of exceptional product and equipment selections complimented by substantial time savings and multiple other related benefits for participating agencies. • NJPA contract solutions offer choice with the ability to continue to perform your own competitive bidding process if you choose to do so.

NJPA strives to exceed our members' needs and expectations. Our contracting process mirrors our members' process. In creating a contract pathway through a unified and commonly embraced contracting process, NJPA contracts are accepted by the highest level of government and education agencies across the country. NJPA increases our members' comfort by conducting complete financial audits of our organization annually through an independent auditor with the results submitted to the State of Minnesota as required by state law.

### Q. AS NJPA MEMBERS, ARE WE STILL ABLE TO BUY FROM OTHER CONTRACTS?

A. Yes, all NJPA membership and contracts are non-exclusive with no obligation to purchase and are contracts of choice by our member agencies.

### Q. CAN MY PUBLIC AGENCY USE NJPA CONTRACTS WITHOUT ISSUING OUR OWN SOLICITATION?

A. Yes, in most states and local jurisdictions. All NJPA contracts have been competitively solicited nationally, reviewed, evaluated by committee and recommended to the NJPA Board of Directors for award in accordance with Minnesota public purchasing and contracting rules, guidelines and regulations applicable to NJPA. Each solicitation is issued on behalf of NJPA and current and potential NJPA members nationwide. Each RFP advises all responders that NJPA most desires and invites a vendor whom can sell and service participating member agencies in all fifty states and, optionally, provinces and territories of Canada. All RFP respondents understand that these contracts will be under consideration for use by government, education and non-profit member agencies throughout the United States.

### Q. HOW CAN I OBTAIN COPIES OF THE LEGAL DOCUMENTATION ASSOCIATED WITH EACH CONTRACT?

A. Related contract and competitive bid process documentation is available on the NJPA website under each individual vendors' page or by request. Once on a vendor page, there is a tab titled "Contract Documentation" where these documents can be reviewed. Please follow the instructions under each vendor's "Pricing" tab to access pricing for specific contracts. Due to pricing complexity, most pricing is not located on the website and is available upon request in compliance with MIN Data Practices. Procurement files are also available upon request.

### Q. WHAT IS THE SOLICITATION AND REQUEST FOR PROPOSAL (RFP) PROCESS?

A. NJPA conducts a comprehensive 11-step process (described in full on pages 9-10) that includes: 1) Researching member needs, 2) Researching the solutions available in the market place, 3) Requesting permission from the NJPA Board to issue a solicitation, 4) Drafting and advertising an RFP, 5) Conducting a Pre-Proposal Conference 6) Evaluating proposers' responses received, 7) Making recommendations to the NJPA Board, 8) Awarding vendor(s), 9) Posting approved contract documents, 10) Developing and implementing a joint marketing plan with awarded vendors, and 11) Reviewing and maintaining our contract throughout its term.

## FAQs

### FREQUENTLY ASKED QUESTIONS

#### Q. HOW DOES THE PURCHASE PROCESS FLOW?

A. NJPA contracts establish a business to government style transaction flow. Members are encouraged to begin communications with their local dealer/representative of our contract holder, as they are the experts in helping members determine their specific needs and thereby defining the best solution for equipment, products and services needed. Members communicate with the vendors through contract proposals that include pricing. Members may contact NJPA to verify the awarded contract pricing and confirm contract terms and conditions. To execute a purchase, a member should issue a purchase order according to their normal organizational parameters. In addition, the member should include identifying language on the face of that purchase order such as: "This purchase order is issued pursuant to NJPA Contract #XXXXXX:AAA" which will notify the local dealer/representative of the desire and intent to use the NJPA contract that includes its pricing, terms and conditions.

#### Q. CAN MY AGENCY ADD ADDITIONAL TERMS & CONDITIONS TO MEET MY LOCAL REQUIREMENTS?

A. Members have the ability to propose new or additional terms and conditions through a participating addendum or as a part of the customer purchase order phase. By reviewing your procurement documentation and local requirements you may find that there are specific requirements by your agency that are not included in the NJPA terms and conditions. The terms and conditions of the NJPA contract cannot be changed, but custom or additional terms and conditions are acceptable between the customer and vendor at the purchase order level.

#### Q. WHAT ABOUT CUSTOMER SATISFACTION AND ASSURANCE?

A. NJPA cooperative procurement contracts do not guarantee sales. Each vendor must earn each individual sale they propose. Excellent products/equipment and customer service yields excellent customer satisfaction and assurance. As a result, NJPA cooperative procurement contracts are based on the quality and performance of the equipment/products and support of the on-going customer services. Our members issue their most important and final vote with their purchase orders. We find that our vendors exceed our members' expectations due to the quality of vendors we have under contract and how each vendor sees the value of the contract for their company.

#### Q. DESCRIBE WHO NJPA CONTRACT AWARDS TO.

A. NJPA's prefers to award contracts at the manufacturer level when possible. Contract awards to manufacturers are made on behalf of that manufacturer's dealer network through the established relationship between manufacturer and authorized dealers. Likewise, contract awards made to a re-seller are made on behalf of the re-seller's manufacturers, again through the established relationship between the re-seller and their manufacturers. In many cases, some products or equipment are only available through re-sellers. Whichever is the case, NJPA members have a single source of responsibility in the awarded contractor and that awarded contractor takes responsibility for all third party sub-contractors used in the acquiring and delivering of products and services to be delivered. As a result of the contracting reputation NJPA has earned, NJPA is able to award contracts to quality vendors that members can trust.

#### Q. HOW DO MY REGULAR SUPPLIERS BECOME AUTHORIZED SUPPLIERS FOR NJPA?

A. Ask the supplier to watch for bids being posted. NJPA bids are posted in the USA Today ([usatodayclassifieds.com](http://usatodayclassifieds.com)), Star Tribune ([startribune.com](http://startribune.com)); at least once in Oregon and Utah in the Daily Journal of Commerce ([djcoregon.com](http://djcoregon.com)) and the Salt Lake News ([nadegal@mediaoneutah.com](mailto:nadegal@mediaoneutah.com)), respectively; on the NJPA website ([NJPAcoop.org](http://NJPAcoop.org)); the NoticeToBidders.com website ([noticetobidders.com](http://noticetobidders.com)); distributed to other third party procurement websites such as BidSync ([bidsync.com](http://bidsync.com)), Onvia ([onvia.com](http://onvia.com)), MERX ([merx.com](http://merx.com)), and Biddingo ([biddingo.com](http://biddingo.com)); and distributed to the procurement offices at the state level in each state for re-publication in their jurisdictions at their discretion. Suppliers who respond to NJPA RFPs in a sufficient manner are awarded a contract according to the terms and conditions contained therein.

#### Q. HOW DO I GET MORE INFORMATION ABOUT NJPA?

A. Contact us at [NJPAcoop.org](http://NJPAcoop.org) | 888-894-1930 or contact any of our vendors listed in our Contract Directory.

#### Q. HOW CAN WE BECOME A NJPA VENDOR?

A. All current NJPA vendors became awarded vendors by responding to a NJPA nationally advertised solicitation in their respective categories. To learn more visit our website at [NJPAcoop.org/how-to-become-a-vendor](http://NJPAcoop.org/how-to-become-a-vendor).

# PROCUREMENT PROCESS

ABOUT US • CONTRACT PURCHASING

## OUR 11-STEP PROCUREMENT PROCESS

*It is the desire of NJPA to meet our members' procurement requirements, but it is ultimately our members' responsibility to interpret local purchasing laws to determine their own ability to access and participate with NJPA contracts. Our request for proposal (RFP) process is continuously being refined to meet the changing needs of our members. The desired result is a national, competitively bid procurement and contract process that is not only valued by members but meets or exceeds local requirements—offering exceptional products and services from nationally acclaimed vendors.*

### 1) IDENTIFY MEMBER NEED

NJPA pursues member participation and conducts research through our member advisory committees represented by various verticals. This is also carried out at numerous national trade shows; we take the opportunity to not only display our current offerings, but also listen to our members' needs in an effort to refine our current and future product and service offerings.

### 2) RESEARCH SOLUTIONS AVAILABLE IN THE MARKET PLACE

Constant research helps us develop the best approach for each offering. Some industries lend themselves to a manufacturer's response because that manufacturer provides a complete industry solution through their authorized dealers. Other industries lend themselves to a distributor response because they are able to provide the most complete industry solutions through the large number of manufacturers they represent.

### 3) REQUEST PERMISSION FROM THE NJPA BOARD OF DIRECTORS

After establishing the existence of both a viable need and a viable NJPA style solution, permission from the publicly elected NJPA Board of Directors is sought and must be granted to officially begin the development of the solicitation and overall procurement process.

### 4) DRAFT A SOLICITATION, PUBLIC ADVERTISEMENT AND NOTICE

Our solicitation document is our cornerstone of cooperative contract purchasing. The consistency of that solicitation document and its response forms and evaluation criteria are some of our greatest assets. NJPA advertises each RFP:

- in the print and online versions of the Minneapolis Star Tribune;
- in the online version of the USA Today;
- at least once in Oregon and Utah in the Daily Journal of Commerce and the Salt Lake News, respectively;
- on the NJPA website (NJPAcoop.org);
- on NoticeToBidders.com, and other appropriate e-commerce sites such as bidsync.com, onvia.com, publicpurchase.com, MERX.com, and biddingo.com; and
- by notifying state procurement departments in each state for possible re-posting of solicitation within their systems at their discretion.

### 5) CONDUCT A PRE-PROPOSAL CONFERENCE FOLLOWED BY RECEIPT OF PROPOSERS' RESPONSES

Proposers are typically given 5-6 weeks from the start of the RFP advertisement to respond to the RFP. A Pre-Proposal Conference is conducted to answer questions and the PowerPoint slides used are sent to all who requested the RFP. An addendum may also be issued if there are any items covered beyond RFP content clarifications in the conference, and such items are deemed material by NJPA. NJPA uses an atomic clock to electronically time and date stamp all Proposals immediately upon receipt in NJPA's Staples, MN office. Proposals are later opened and read aloud by a Bids and Contracts department employee at the time, date, and place specified in the RFP.

### 6) EVALUATE PROPOSERS' RESPONSES

Evaluation begins at the bid opening by determining the "responsiveness" of each bid. "Level One Responsiveness" includes:

- Timely submission
  - Original signatures on appropriate documents
  - Liability insurance verification
  - Pricing document
  - Responses provided to all form questions
  - Required electronic and physical copy.
- "Level Two Responsiveness" is the evaluation of the response according to the evaluation criteria provided in the RFP and documented on the "Overall Evaluation and Criteria" (Form G) by the Proposal Evaluation Committee. It establishes a weighted scoring method and provides for an optional Cost Comparison. This point-based system is used as a part of the final scoring and awarded vendor determination.



# PROCUREMENT PROCESS

## Evaluating proposers' responses, continued:

Our typical RFP's intent is to invite the widest variety of products and services within the scope of a bid to create a national contract that provides the greatest range of utility to the widest array of NJPA members. We specifically invite bidders to define their products and services not only by industry standard terms, but also in terms of the latest technological advances and applicability/utility to our members. NJPA believes the perceived procurement value of a proposal to NJPA and its members includes, but is not limited to:

- Conformance to RFP's intent, scope and specifications
- Competitive pricing strategies
- Ability to sell and service NJPA members nationally
- Financial strength, experience and success in the industry/marketplace
- References from past customers and prior experience with NJPA
- A clear, concise, aggressive and effective marketing plan
- Value Adds: related products, services and technological advances; green; WMBE and/or SBE status; ability to sell and service Canada and other International countries
- Financing options and detailed payment terms
- Warranty, product and service responsibility
- Identification of depth, breadth and quality of equipment, products and service offerings

### 7) PROVIDE RECOMMENDATIONS TO THE NJPA BOARD

The recommendations of the Proposal Evaluation Committee are presented to the NJPA Board of Directors for final review and possible award. The NJPA Board has the final authority to issue or deny a procurement contract.

### 8) AWARD VENDOR/S

Upon approval by the NJPA Board, the recommended vendor is awarded a four-year contract term with one additional one-year renewal/extension at the discretion of NJPA. The Bids and Contracts Department emails Notices of Award and Non-Award to vendors.

### 9) POST APPROVED CONTRACT DOCUMENTS

A complete procurement file is organized and posted on our website for review by our members, it includes: the solicitation, competitive bidding and evaluation process and contract documentation.

### 10) DEVELOP AND IMPLEMENT A JOINT MARKETING PLAN WITH AWARDED VENDOR/S

NJPA works with both the vendor and member to educate on the benefits and uses of an awarded contract. We work with the awarded vendor(s) to educate and energize their sales and service teams.

NJPA advertises awarded contracts in select national publications; produces a full-color, hard copy "Contract Directory"; maintains a website offering of the contract solutions; exhibits with vendor partners in numerous national and regional trade shows; and provides break-out meetings at trade shows presenting information on contract purchasing and cooperative opportunities available through NJPA.

### 11) REVIEW AND MAINTAIN OUR CONTRACT THROUGHOUT ITS TERM

Contracts are periodically reviewed for their effectiveness. NJPA contracts are written with four-year terms with a fifth year option. As a result, NJPA provides a simple, structured, well-documented procurement contract in an effort to create a seamless process for all of its member procurement needs. It is important to stress that NJPA does not eliminate member responsibility for following the bid process; but rather, provides a nationally pre-competed option so as not to duplicate the formal bid process.

**Your Next Step to Get Started** *Join NJPA at no cost, obligation or liability to your organization. Invite others agencies to do the same. Copy this form, or join online. [NJPAcoop.org/join](http://NJPAcoop.org/join).*



**MEMBERSHIP AGREEMENT  
PARTICIPATING MEMBER**



**This Agreement, made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between National Joint Powers Alliance®, hereinafter referred to as "NJPA" and \_\_\_\_\_ hereinafter referred to as the "Applicant".**

**Witnesseth:**

That for a good and valuable consideration of the premises, mutual terms, covenants, provisions, and conditions hereafter set forth, it is agreed by and between the parties as follows:

*Whereas, the NJPA is created by Minnesota Statute §123A.21 (with membership further defined in M.S. §471.59) to serve cities, counties, towns, public or private schools, political subdivisions of Minnesota or another state, another state, any agency of the State of Minnesota or the United States including instrumentalities of a governmental unit and all non-profits; and*

*Whereas, NJPA's purpose as defined in M.S. §123A.21 is to assist in meeting specific needs of clients which could be better provided by NJPA than by the members themselves; and*

*Whereas, the NJPA Board of Directors has established the ability for an "Applicant" desiring to participate in NJPA contracts and procurement programs to become a Participating Member; and*

*Whereas, the NJPA Board of Directors has determined that Participating Members will have no financial or organizational liability to NJPA or to its organizational activities;*

**Now Therefore,** it is hereby stipulated and agreed that the "Applicant" Agency desires to be a Participating Member of NJPA with contract purchasing benefits, in accordance with terms and conditions of the applicable contract(s), and that NJPA hereby grants said Membership to said "Applicant."

**Term:**

This continuing agreement shall remain in force or until either party elects to dissolve the Agreement by written notice.

**THEREFORE, IN WITNESS THEREOF,**

the parties hereto have executed this Agreement the day and year written above.

**National Joint Powers Alliance®  
202 12th Street NE, P.O. Box 219  
Staples, MN 56479**

**Member Name:**

By \_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
AUTHORIZED SIGNATURE

Its \_\_\_\_\_  
TITLE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DATE

**Please indicate an address to which your membership materials may be delivered. Thank you.**

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PHONE

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\_\_\_\_\_  
ORGANIZATION TYPE

For membership questions contact:

**Duff Erholtz**  
Phone: 218-894-5490  
Fax: 218-894-3045  
Email: duff.erholtz@njpacoop.org

10/09/2014

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09/23/2014



**Date:** February 24, 2015

**Subject:** Presentation on the Issuance of \$30,810,000 Refunding Revenue Bonds for the Refinancing of the 2004A Certificates of Participation

On May 24, 2004 the Yucaipa Valley Water District Financing Corporation (Financing Corporation) became incorporated under the laws of the State of California as a nonprofit public benefit corporation. The purpose of the Corporation is to assist in the financing, refinancing, acquiring, constructing and rehabilitating of facilities, land and equipment, and in the sale or leasing of facilities, land and equipment (collectively, the “Facilities”) for the use, benefit and enjoyment of the public served by the Yucaipa Valley Water District.

On June 29, 2004, the Financing Corporation issued \$45,730,000 in bonds commonly referred to as the Water System Revenue Certificates of Participation, Series 2004A. The funds were used primarily for the construction of the Yucaipa Valley Regional Water Filtration Facility.

On October 15, 2014, the Board of Directors authorized the General Manager to refinance the 2004A Certificates of Participation to gain the benefits of low interest rates for the remaining twenty year term of the debt obligation.

On February 4, 2015, the District received notification of an A+ credit rating from Standard & Poor’s and an AA- credit rating from Fitch Ratings. Recognizing the importance of high credit ratings, the Board of Directors subsequently adopted a Debt Management Policy establishing the goal of obtaining AA ratings in the future to obtain low interest rates and provide a high grade investment opportunity for investors. The key to obtaining a higher credit rating will be to maintain stable cash balances sufficient to provide the necessary coverage for debt

Major Rating Agencies Rating Guide for Long and Short Term Debt						
Moody's		S&P		Fitch		Risk
Long Term	Short Term	Long Term	Short Term	Long Term	Short Term	Characteristic
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime
Aa1		AA+		AA+		
Aa2		AA		AA		
Aa3		AA-		AA-		
A1		A+		A+		
A2	P-2	A	A-1	A	F1	Upper Medium Grade
A3		A-	A-			
Baa1		BBB+	A-2	BBB+	F2	
Baa2	P-3	BBB	A-3	BBB	F3	Lower Medium Grade
Baa3		BBB-		BBB-		
Ba1	Not Prime	BB+	B	BB+	B	Non-investment grade speculative
Ba2		BB		BB		
Ba3		BB-		BB-		
B1		B+		B+		
B2		B		B		
B3		B-		B-		
Caa1		C		CCC+		C
Caa2	CCC		Extremely Speculative			
Caa3	CCC-		In default with little prospect for recovery			
Ca	CC					
C	C					
/	D	/	/	DDD	/	In default
/				DD		
/				D		

obligations and emergency expenses. By continuously improving and strengthening our core financial standing, the District will be able to obtain lower interest rates in the future and attract additional investments for our future infrastructure improvements.

On February 12, 2015, the District's Water System Refunding Revenue Bonds, Series 2015A were available on the market. At the conclusion of the bond offering, the District was able to obtain a true interest cost of 3.104% which will result in an annual savings of about \$600,000 for the twenty year duration of the debt. A big part of the District's success was based on our strong financial portfolio that is expected to continue to improve in the near future.

The savings realized by this refinancing, will provide the additional financial reserves which should help achieve the AA credit rating resulting in lower interest costs. Additionally, the savings will be applied directly to the rehabilitation of the water system infrastructure. These funds will be used to replace old water pipelines, wells, boosters and reservoirs. The reinvestment in our water infrastructure will provide a direct benefit to our customers and improve the overall reliability of the water system.

The successful refinancing was a direct result of the hard work of District Controller Vicky Elisalda; the bond counsel staff from Stradling, Yocca, Carlson & Rauth; the financial advisors from Fieldman Rolapp & Associates; and the underwriters from Bank of America Merrill Lynch. Together this team of individuals performed exceptionally well in a short period of time to deliver savings that will enable our community to continuously improve our water system infrastructure.

### **Key Assumptions**

- Refunding bonds delivered on February 26, 2015
- Refunded bonds called on March 1, 2015
- Cash escrow
- \$185,000 estimated for Cost of Issuance
- Results assume all of the 2004A COPs are refunded
- Prior Debt Service Reserve Fund release of approximately \$2.9 million
- Assumes the District will fund the March 1, 2015 interest payment of \$937,862.50 at closing
- No new Debt Service Reserve Fund





## Public Finance

Water &amp; Sewer / U.S.A.

## Yucaipa Valley Water District, California

### Water System Revenue Refunding Bonds New Issue Report

#### Ratings

##### New Issue

Water System Revenue Refunding  
Bonds, Series 2015A

AA-

##### Rating Outlook

Stable

#### New Issue Details

**Sale Information:** Approximately \$30,890,000 Water System Revenue Refunding Bonds, Series 2015A, scheduled to sell Feb.12 via negotiation.

**Security:** A first-lien pledge on the revenues of the district's water system (the system) and a 1% ad valorem property tax levied in the district.

**Purpose:** To refund all of the district's water system revenue certificates of participation (COPs), series 2004A, for a present value savings of \$7.5 million and to pay for the cost of issuance.

**Final Maturity:** Sept. 1, 2034.

#### Key Rating Drivers

**Adequate Financial Profile:** The financial profile of the system is viewed by Fitch Ratings as adequate for the rating level. All-in debt service coverage (DSC) finished fiscal 2014 at a sufficient 1.7x. The financial profile should strengthen in the years to follow, with DSC rising somewhat in subsequent years from savings associated with this transaction; other financial metrics should also post incremental gains.

**Manageable Capital, Debt Profile:** While currently somewhat elevated, the district's debt profile will improve from a manageable and entirely pay-as-you-go capital improvement plan (CIP), along with rapid debt amortization.

**Diverse Water Supply:** Extensive planning by a proactive management team has resulted in a sufficient and diverse water supply for medium- to long-term needs.

**Stable Local Economy:** The local economy has performed comparatively well post-recession. The unemployment rate, median household income (MHI) and poverty levels generally are in line with or better than state and national averages.

#### Related Research

[2015 Water and Sewer Medians \(December 2014\)](#)

[2015 Outlook: Water and Sewer Sector \(December 2014\)](#)

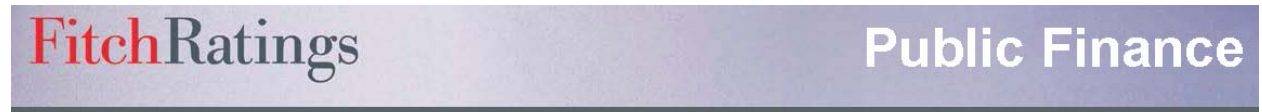
#### Rating Sensitivities

**Maintenance of Financial Profile:** The rating is sensitive to deterioration in the district's financial and debt profiles. The Stable Rating Outlook reflects Fitch's expectations that such changes are unlikely over at least the next few years.

#### Analysts

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**Rating History**

Rating	Action	Outlook/ Watch	Date
AA-	Assigned	Stable	2/4/15

**Credit Profile**

The district is located 70 miles east of Los Angeles in the foothills of the San Bernardino Mountains, with portions of the service area encompassing Riverside and San Bernardino counties. The district provides water, wastewater and recycled water to a primarily residential population of approximately 44,900 through 12,300 connections in the cities of Calimesa and Yucaipa.

**Adequate Financial Profile Expected to Improve**

All-in DSC has been stable at 1.6x over the past three years, while liquidity, measured as days cash on hand, finished fiscal 2014 at a generally robust 287 days (the strongest level over the past five years). The district’s financial profile is expected to brighten as savings associated with this transaction, coupled with the lack of future borrowing plans, boosts DSC. Management’s forecast points to all-in DSC climbing above 3.0x by fiscal 2019, aided by refunding savings, as well as significantly strong connection fees.

Fitch notes that historical connection fees have been much lower than those currently being projected by management. Nevertheless, based on the five-year average of connection fees (around \$620,000 per year), total DSC still rises to the 1.8x–1.9x range by the end of the forecast, with savings from this transaction included. With stronger DSC, liquidity and cash flow than expected, metrics should also experience gains through the fiscal 2019 forecast period from current levels.

**Improving Debt Profile**

The district’s debt profile is somewhat elevated but improving. Total debt per customer finished fiscal 2014 at \$3,083, above Fitch’s ‘AA’ rating category median of \$1,934. However, benefiting from ongoing amortization and the present-value savings associated with this refunding, debt per customer is expected to drop to a manageable \$2,050 in five years, in line with similarly rated utilities.

The district’s five-year CIP totals \$8.75 million, with nearly all funding tied to a new six million gallon reservoir scheduled to be completed in 2016. Further system needs are minimal given the recent completion of the Yucaipa Valley Drinking Water Filtration Facility in 2007, which was financed with the series 2004 COPs. Capital projects are expected to be funded by cash and therefore should not have an effect on overall district debt.

**Diverse Water Supply**

The district has a wide array of water resources available for its customers, which places it in a favorable position versus other regional peers. Approximately 60% of the district’s potable water supply is derived from the Yucaipa and Beaumont groundwater basins. The remaining 40% is derived from surface water sources, including water from the Oak Glen Plant and imported water from the State Water Project (SWP; purchased from the San Bernardino Valley Municipal Water District and San Gorgonio Pass Water Agency), which is treated at the Yucaipa Filtration Facility. Proactive water supply management practices, including purchasing water from the SWP to recharge previously over-drafted local groundwater basins, are expected to keep water supply sufficient through 2035.

**Related Criteria**

- [Revenue-Supported Rating Criteria \(June 2014\)](#)
- [U.S. Water and Sewer Revenue Bond Rating Criteria \(July 2013\)](#)



## Public Finance

### Financial Summary

(\$000, Audited Fiscal Years Ended June 30)

	2010	2011	2012	2013	2014
<b>Balance Sheet</b>					
Unrestricted Cash and Investments	4,325	3,438	2,745	2,078	6,931
Accounts Receivable	1,462	1,465	1,555	1,542	1,681
Other Current Unrestricted Assets	3,207	4,681	5,917	7,220	1,524
Current Liabilities Payable from Unrestricted Assets	(4,235)	(3,364)	(3,182)	(3,433)	(3,392)
<b>Net Working Capital</b>	<b>4,759</b>	<b>6,220</b>	<b>7,035</b>	<b>7,407</b>	<b>6,744</b>
Net Fixed Assets	107,771	106,425	104,104	101,761	100,780
Net Long-Term Debt Outstanding	41,777	40,888	39,964	39,006	38,007
<b>Operating Statement</b>					
Operating Revenues	9,906	9,380	10,232	9,974	10,421
Non-Operating Revenues	2,619	2,225	2,015	2,445	2,619
Connection Fees	248	1,437	245	545	636
<b>Gross Revenues</b>	<b>12,773</b>	<b>13,042</b>	<b>12,492</b>	<b>12,964</b>	<b>13,676</b>
Operating Expenses (Excluding Depreciation)	(7,715)	(7,859)	(7,963)	(8,656)	(8,803)
Depreciation	(3,247)	(3,270)	(3,225)	(3,236)	(3,249)
<b>Operating Income</b>	<b>1,811</b>	<b>1,913</b>	<b>1,304</b>	<b>1,072</b>	<b>1,624</b>
Net Revenues Available for Debt Service <sup>a</sup>	5,058	5,183	4,529	4,308	4,873
Total Debt Service Requirements	2,932	2,931	2,932	2,931	2,932
<b>Financial Statistics</b>					
Total Debt Service Coverage (x)	1.7	1.8	1.5	1.5	1.7
Total Debt Service Coverage Excluding Connection Fees (x)	1.6	1.3	1.5	1.3	1.4
Days Cash on Hand	205	160	126	88	287
Days Working Capital	225	289	322	312	280
Debt to Net Plant (%)	39	38	38	38	38
Outstanding Long-Term Debt per Customer (\$)	3,483	3,375	3,293	3,180	3,083
Outstanding Long-Term Debt per Capita (\$)	813	786	763	742	717
Free Cash to Depreciation (%) <sup>b</sup>	65	69	50	43	12

<sup>a</sup>Equals gross revenues, including Federal Direct Subsidy Payments, less operating expenses. <sup>b</sup>Equals net revenues available for debt service less operating transfers out, less total debt service, divided by depreciation. Note: Numbers may not add due to rounding.

### Rates Remain Competitive

Rates include a fixed-charge component and a usage-based component. An additional 1% property tax charge is assessed on service area residents, the large majority of which is allocated to the district. Under Fitch's standard usage assumption of 7,500 gallons per month, rates are affordable at approximately 0.7% of MHI. Although actual usage is much higher in the region, customer bills are competitive with other regional providers. No significant rate increases are projected over the forecast period as new growth is expected to drive revenue increases. However, management retains the ability to increase rates, if necessary.

### Stable Economic Profile

The city of Yucaipa's economy has generally performed as well or better than the state and country in coming out of the recession caused by the 2009 financial crisis. As such, measured at 6.1% in October 2014, the city's unemployment rate ranked below the state average (7%) but slightly above national (5.5%) levels. MHI is mostly consistent with the state average and

better than the national average. Individual poverty rates are below state and national averages. The service area is approximately 50% built out, allowing for room to meet projected growth.

### **Covenants**

#### ***Rate Covenant***

The district covenants to establish and maintain rates, fees and charges sufficient to generate net revenues of at least 1.10x ADS, excluding transfers from rate stabilization fund in excess of 10% of debt service.

#### ***Additional Bonds Test***

Additional parity bonds may be issued provided that net revenues for the latest audited fiscal year preceding the date of issuance of the additional bonds and for all succeeding fiscal years in which parity bonds will be outstanding equals at least 1.10x ADS.



The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

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## Summary:

# Yucaipa Valley Water District, California; Water/Sewer

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Rationale

Outlook

Related Criteria And Research

**Summary:****Yucaipa Valley Water District, California;  
Water/Sewer****Credit Profile**

US\$30.86 mil wtr sys rfdg rev bnnds ser 2015A due 09/01/2034

*Long Term Rating*

A+/Stable

New

**Rationale**

Standard & Poor's Ratings Services assigned its 'A+' long-term rating to Yucaipa Valley Water District, Calif.'s series 2015A water system refunding revenue bonds. The outlook is stable.

The rating reflects our view of the water system's:

- Service area in San Bernardino and Riverside counties that has good income levels;
- Stable, primarily residential, and very diverse customer base;
- Operational flexibility through a conjunctive use program that provides a buffer against the volatility of imported water availability;
- Strong debt service coverage (DSC) that we anticipate is sustainable.

These credit strengths are partly offset, in our view, by the water system's:

- Reliance on imported water for direct use and to replenish the groundwater basins as the service area develops and water demand further outstrips local supply, and
- Past drawdown of water system cash and investments to support other district needs.

The series 2015A bonds are being issued to refund the district's series 2004 certificates of participation (COPs) for economic savings.

We view the bond provisions as adequate. The bonds are secured by the revenues of the district's water system and payable from the system's net revenues. Covenants include a rate covenant and an additional bonds test, both of which are set at 1.10x annual debt service. The district is not providing a reserve fund for the series 2015A bonds.

The district straddles the border between San Bernardino and Riverside counties about 70 miles east of downtown Los Angeles and 20 miles southeast of the city of San Bernardino. The service area encompasses about 40 square miles, including the cities of Yucaipa and Calimesa. The district estimates that the service area population is about 44,900, with roughly 90% residing within Yucaipa and 10% residing within Calimesa. We understand that the service area is about half developed and that the majority of future growth is expected to occur within Calimesa. At service area buildout, the population is projected to be about 94,800.

Residents of these bedroom communities have access to employment opportunities throughout the broad and diverse economy of the greater Riverside-San Bernardino-Ontario metropolitan region. We view the service area's income

*Summary: Yucaipa Valley Water District, California; Water/Sewer*

levels to be good based on the median household effective buying incomes (EBIs) for Yucaipa and Calimesa, which were 108% and 105%, respectively, of the national median in 2013. Yucaipa's unemployment rate has been moderate during the past 36 months and was most recently 6.2% (not seasonally adjusted) in November 2014, which was lower than the state unemployment rate of 7.1% for that month.

The customer base is stable, primarily residential, and very diverse. During the past four years, the number of water connections grew at an average annual rate of just 0.7% to 12,326 at the end of fiscal year 2014. We understand that residential customers account for about 95% of the system connections. We view the customer base as very diverse based on the leading 10 customers paying about 11.2% of total operating revenues in fiscal year 2014.

The district utilizes a combination of local and imported water resources to meet service area demands. During the past five fiscal years, groundwater wells provided about 60% of water supply and imported water treated at the district's Yucaipa Valley Regional Water Filtration Facility provided about 35% of water supply. As the service area continues to develop, water demand is forecast to rise, which in turn is expected to increase the need for imported water both for direct delivery and also for groundwater recharge.

Imported water is purchased from two state water project contractors: San Bernardino Valley Municipal Water District, for use within the San Bernardino County portion of the district's service area, and San Gorgino Pass Water Agency, for use within the Riverside County portion of the district's service area. Although the availability of imported water from the state water project is volatile, the district's ability to recharge the groundwater basin during wet periods for withdrawal during drought periods buffers the district from some of this supply variation. The district also plans to increase the distribution and supply capacity of the recycled water system; however, this system is separate from the water system, and the revenues of the recycled water system are not pledged to the bonds. Management reports that the water system's average daily demand is about 11 million gallons per day (mgd) and peak day demand is about 16 mgd, both of which compare favorably with supply capacity of 28 mgd.

Service rates are affordable, which we believe provides management with revenue-raising flexibility. The rate structure is composed of a monthly service charge, currently \$14, and four usage-based rate tiers that range from \$1.43 to \$2.43 per 1,000 gallons. Using our benchmark of 8,000 gallons per month, we calculate a monthly water bill of \$25.43. On an annualized basis, this represents 0.7% of median household EBI, which we consider affordable. Service rates have been adjusted annually during the past four fiscal years pursuant to a multiyear rate schedule that was adopted in 2011 that called for \$1 annual increases to the monthly service charge. Although future rate increases have not yet been approved, management anticipates that rates will be adjusted to produce results consistent with draft DSC and reserve policies being considered by the board, if adopted. Management reports that there have not been any material payment delinquencies by the customer base.

Capital spending during the next five years is manageable and does not require any additional borrowing. The capital plan is composed of two projects: a 6.0-million-gallon reservoir at a cost of \$8.25 million and a filtration membrane replacement project at a cost of \$500,000. Management plans to fund these projects with reserves and other pay-as-you-go sources.

The water system's financial performance has been strong, and we anticipate that it will remain strong during the



*Summary: Yucaipa Valley Water District, California; Water/Sewer*

forecast period. Based on the district's audited financial statements, we calculate that, during the past five fiscal years, DSC ranged from 1.47x in fiscal year 2013 to 1.76x in fiscal year 2011, and most recently was 1.66x in fiscal year 2014. When excluding one-time developer fees and grants, DSC ranged from 1.27x in fiscal year 2011 to 1.64x in fiscal year 2010, and most recently was 1.44x in fiscal year 2014. During this period, operating revenues decreased in fiscal year 2011 by 5.3%, primarily due to reduced water demand during a particularly wet year, and then rebounded the following fiscal year when weather returned to normal. Revenue from interfund services declined in fiscal year 2013 based on a change in methodology in allocating overhead costs to the district's various systems. Operating expenses increased by 8.7% in fiscal year 2013 largely due to a rise in salaries and benefits as the district filled positions that had previously been held vacant. Property tax revenues declined by 24% to \$2.0 million in fiscal year 2012 from \$2.6 million in fiscal year 2010, but subsequently rebounded to \$2.5 million in fiscal year 2014 as improvements in the local economy have been boosting assessed valuations.

Based on management's forecast, we anticipate that DSC will remain strong during the next five years. The forecast assumes continued customer base growth of 2.0% increasing operating revenues, and steady operating increases of about 3.3% annually. More significantly, the forecast assumes that one-time developer fees range from \$2.2 million to \$3.4 million, which we believe is somewhat aggressive when compared to the \$250,000 to \$1.4 million received during the past five fiscal years, and lower annual debt service requirements following the refunding of the 2004 COPs. Taking into consideration these assumptions, DSC is forecast to be strong, ranging from 2.1x to 3.0x when including developer fees and 1.3x to 1.7x when excluding developer fees.

The water system's liquidity position was strong at the end of fiscal year 2014, after a loan to another system was repaid. From fiscal year 2010 to 2013, unrestricted liquidity declined to \$2.1 million, equivalent to 88 days of operating expenses, which we consider good, from \$4.3 million, or 205 days, which we consider strong. We understand that this decline in liquidity was caused by the water system loaning funds to the district's recycled water system for construction of a project prior to repayment from a state loan. The recycled water system repaid the water system in July 2013, thereby restoring liquidity by \$3.7 million. At the end of fiscal year 2014, the water system held \$6.9 million, or 287 days, of unrestricted cash and investments. Management reports that there are no plans to loan funds from the water system to another district system in the future.

## Outlook

The stable outlook reflects our view of the essential nature of the service that the system provides and the affordable service rates that provide management with revenue-raising flexibility. During the two-year outlook period, we anticipate that the district will adopt a DSC policy and reserve policy and begin benchmarking performance against policy levels. We could take a positive rating action if the district is able to achieve results consistent with its forecast and liquidity remains strong. Conversely, we could take a negative rating action if the system's financial performance weakens or liquidity declines markedly.

*Summary: Yucaipa Valley Water District, California; Water/Sewer*

## Related Criteria And Research

### Related Criteria

- USPF Criteria: Key Water And Sewer Utility Credit Ratio Ranges, Sept. 15, 2008
- USPF Criteria: Standard & Poor's Revises Criteria For Rating Water, Sewer, And Drainage Utility Revenue Bonds, Sept. 15, 2008
- USPF Criteria: Methodology: Definitions And Related Analytic Practices For Covenant And Payment Provisions In U.S. Public Finance Revenue Obligations, Nov. 29, 2011

### Related Research

- U.S. State And Local Government Credit Conditions Forecast, Dec. 10, 2014
- U.S. Municipal Water And Sewer Utilities 2014 Sector Outlook: Learning To Do More With Less, Jan. 9, 2014
- 2014 Review Of U.S. Municipal Water And Sewer Ratings: How They Correlate With Key Economic And Financial Ratios, May 12, 2014

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**FEBRUARY 4, 2015 6**

**NEW ISSUE – BOOK-ENTRY ONLY****RATINGS: See the caption “RATINGS”**

*In the opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Bond Counsel, under existing statutes, regulations, rulings and judicial decisions, and assuming certain representations and compliance with certain covenants and requirements described in this Official Statement, interest (and original issue discount) on the 2015 Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals and corporations. In the further opinion of Bond Counsel, interest (and original issue discount) on the 2015 Bonds is exempt from State of California personal income tax. See the caption “TAX MATTERS” with respect to tax consequences relating to the 2015 Bonds.*



**\$30,810,000**  
**YUCAIPA VALLEY WATER DISTRICT**  
**WATER SYSTEM REFUNDING REVENUE BONDS**  
**SERIES 2015A**

**Dated: Date of Issuance****Due: September 1, as set forth below**

The 2015 Bonds are being issued to provide funds to provide a portion of the money to refund all of the currently outstanding Yucaipa Valley Water District Water System Revenue Certificates of Participation, Series 2004A and to pay costs of issuance of the 2015 Bonds, all as more fully described herein.

The 2015 Bonds are being issued in fully registered form and when issued will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York. Purchasers of the 2015 Bonds will not receive securities representing their beneficial ownership in the 2015 Bonds purchased. Interest on the 2015 Bonds is payable on September 1, 2015 and each March 1 and September 1 thereafter, until the maturity thereof. The principal of and interest on the 2015 Bonds are payable by the Trustee to Cede & Co. and such interest and principal payments are to be disbursed to the beneficial owners of the 2015 Bonds through their nominees.

**The 2015 Bonds are subject to optional and extraordinary redemption as more fully described herein.**

The 2015 Bonds are being issued pursuant to the Indenture of Trust, dated as of January 1, 2015, by and between the Yucaipa Valley Water District and Wells Fargo Bank, National Association, as trustee. The 2015 Bonds are limited obligations of the District payable solely from Net Water System Revenues of the District's Water System remaining after payment of Operation and Maintenance Costs of the Water System, and amounts on deposit in certain funds and accounts created under the Indenture, including the Rate Stabilization Fund, subject to certain restrictions described herein. The District may incur additional obligations payable from Net Water System Revenues on a parity with the obligation to pay principal of and interest on the 2015 Bonds, subject to the terms and conditions of the Indenture, as more fully described herein. The District owns and operates a Wastewater System and a Recycled Water System but the revenues of the District's Wastewater System and Recycled Water System are not pledged to the payment of principal of and interest on the 2015 Bonds and principal of and interest on the 2015 Bonds are not payable from revenues of the District's Wastewater System and Recycled Water System.

**THE 2015 BONDS ARE NOT A DEBT OF THE STATE OF CALIFORNIA, OR ANY OF ITS POLITICAL SUBDIVISIONS (OTHER THAN THE DISTRICT), AND NEITHER THE STATE, NOR ANY OF ITS POLITICAL SUBDIVISIONS (OTHER THAN THE DISTRICT), IS LIABLE THEREON, NOR IN ANY EVENT SHALL THE 2015 BONDS BE PAYABLE OUT OF ANY FUNDS OR PROPERTIES OF THE DISTRICT OTHER THAN THE NET WATER SYSTEM REVENUES AND OTHER MONEYS PLEDGED THEREFOR UNDER THE INDENTURE. THE OBLIGATION OF THE DISTRICT TO MAKE PAYMENTS IN ACCORDANCE WITH THE INDENTURE IS A LIMITED OBLIGATION OF THE DISTRICT AS SET FORTH IN THE INDENTURE AND THE DISTRICT SHALL HAVE NO LIABILITY OR OBLIGATION IN CONNECTION HERewith EXCEPT WITH RESPECT TO SUCH PAYMENTS TO BE MADE PURSUANT TO THE INDENTURE. THE 2015 BONDS DO NOT CONSTITUTE AN INDEBTEDNESS OF THE DISTRICT IN CONTRAVENTION OF ANY CONSTITUTIONAL OR STATUTORY DEBT LIMITATION OR RESTRICTION.**

THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE. INVESTORS ARE ADVISED TO READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION.

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MATURITY SCHEDULE – See Inside Cover Page

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*The 2015 Bonds are offered when, as and if issued and received by the Underwriter, subject to the approval of the valid, legal and binding nature of the 2015 Bonds by Stradling Yocca Carlson & Rauth, a Professional Corporation, Sacramento, California, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the Underwriter by its counsel, Katten Muchin Rosenman LLP, New York, New York, for the District by Aklufi & Wysocki, Redlands, California, General Counsel to the District, and for the Trustee by its counsel. It is anticipated that the 2015 Bonds will be available for delivery through the facilities of The Depository Trust Company on or about February 26, 2015.*

**BofA Merrill Lynch**

Dated: February 12, 2015





**Date:** February 24, 2015

**Subject:** Presentation on the Digester Cover and Piping Replacement Project at the Wochholz Regional Water Recycling Facility

The Yucaipa Valley Water District operates and maintains four anaerobic digesters for sludge conditioning, each with a diameter of 45 feet and a side water depth of 22 feet, yielding a working capacity of approximately 262,000 gallons per digester. The digesters treat sludge drawn from both the primary clarifiers and from the dissolved air flotation thickeners. Digested sludge flows by gravity and can be stored temporarily in a sludge holding tank before being conveyed to the belt presses for dewatering.



The digesters were last cleaned in 2005, in preparation for the most recent treatment plant expansion. Generally, anaerobic digester cleaning is required every 8-10 years in order to remove the accumulated build-up of sand, grit, and other debris.

During the cleaning process, the District assessed the condition of the digesters and related equipment. After conducting routine maintenance to the digester facility, extensive corrosion was found.

On November 6, 2013, the Board of Directors approved a contract with RMC to assist in the cleaning and replacement of covers and piping that has been impacted with corrosion. The design drawings and bid documents are now complete. The District staff will be providing an update and overview of the proposed project.



Figure 1 – Digester No 2 Cover Corrosion, Especially on “Curtain”



**Date:** February 24, 2015

**Subject:** Presentation on the Implementation of the 2014 Water Bond - Proposition 1

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In November 2014, voters approved Proposition 1 which provides \$7.5 billion to fund various water related projects.

<b>Uses of Proposition 1</b>	
<i>(In Millions)</i>	
<b>Purpose</b>	<b>Total Allocation</b>
Water storage	\$2,700
Watershed protection and restoration	1,495
Groundwater sustainability	900
Regional water management	810
Water recycling and desalination	725
Drinking water quality	520
Flood protection	395
<b>Total</b>	<b>\$7,545</b>

For the next budget year, Governor Brown is proposing an expenditure of \$533 million from the bond funds. Based on this proposal, the California Legislative Analyst Office released a report (attached) that reviews the Governor's proposal and provides additional recommendations, focusing on making sure that the funds do not go to endless studies, that there is strict oversight over the fund disbursements, and that the process is transparent.

The District staff is following the funding guidelines and opportunities to determine if our future recycled water projects fit the timing and goals of the Proposition 1 implementation plan.

<b>Governor's 2015-16 Proposals for Proposition 1 Bond Funds</b>	
<i>(In Millions)</i>	
<b>Purpose</b>	<b>Proposed for 2015-16</b>
<b>Water Storage</b>	<b>\$3</b>
Water storage projects	\$3
<b>Watershed Protection and Restoration</b>	<b>\$178</b>
Conservancy restoration projects	\$84
Enhanced stream flows	39
Watershed restoration benefiting state and Delta	37
Los Angeles River restoration	19
Urban watersheds	<1
Various state obligations and agreements	—
<b>Groundwater Sustainability</b>	<b>\$22</b>
Groundwater sustainability plans and projects	\$22
Groundwater cleanup projects	1
<b>Regional Water Management</b>	<b>\$57</b>
Integrated Regional Water Management	\$33
Water use efficiency	23
Stormwater management	1
<b>Water Recycling and Desalination</b>	<b>\$137</b>
Water recycling and desalination	\$137
<b>Drinking Water Quality</b>	<b>\$136</b>
Drinking water for disadvantaged communities	\$69
Wastewater treatment in small communities	66
<b>Flood Protection</b>	<b>—</b>
Delta flood protection	—
Statewide flood protection	—
<b>Administration and Oversight<sup>a</sup></b>	<b>\$1</b>
Administration	\$1
<b>Total</b>	<b>\$533</b>

<sup>a</sup> Bond does not provide specific allocation for bond administration and oversight. It allows the use of other allocations for this purpose.





### A Roadmap to Shared Prosperity

California's foremost Summit harnessing the power of regional collaboration to spur economic innovation and growth.



## Three things to watch for as lawmakers implement California water bond

FEBRUARY 09, 2015 BY [JUSTIN EWERS](#)



Hetch Hetchy dam. (Photo Credit: [Jessica Merz/Flickr](#))

Only a few months after voters overwhelmingly approved the \$7.5 billion water bond known as Proposition 1, the California Economic Summit is urging state lawmakers to give water agencies more precise direction for allocating these funds—and to provide systematic oversight so voters can see how this money is being spent.

Summit leaders offered these recommendations in testimony submitted today to the Assembly Committee on Water, Parks, and Wildlife, which last year earned plaudits for drafting clearly-defined “principles” for the bond—from prohibiting earmarks to increasing accountability—that many credit with contributing to the measure’s success.

With California’s drought lingering, the Summit remains focused on ensuring bond funds allow regions to take “the right next steps” toward sustainability. Echoing a set of Summit drought-response proposals released last year, the testimony emphasizes the need not just for *more* investment to the state’s aging water infrastructure, but for *smarter* investment that encourages more comprehensive governance of the fragmented water system—and more comprehensive solutions to the state’s water challenges.



## Three ideas for implementing Prop 1

Today's Summit testimony highlights three ways state leaders charged with implementing Prop 1 can accomplish these goals—all drawn from the Summit's *Roadmap to Shared Prosperity*, a long-term plan for putting all of the state's regions on a path to sustainable growth.

**1. Refine the state role.** The Summit has encouraged state leaders to use the water bond to advance state goals for water resiliency—with state government providing financial incentives and gap financing for projects that meet the priorities outlined in the California Water Action Plan. The Summit notes an immediate opportunity in the bond's \$100 million allocation for enhancements to “an urban creek”—a funding stream that could support a range of urban restoration projects, including the Los Angeles River. The Summit has already begun working with the City of Los Angeles on how the new authority of Enhanced Infrastructure Financing Districts could leverage bond funds to support river restoration.

**2. Support integrated, multi-benefit projects across watersheds.** Summit leaders have also urged the state to ensure Prop 1 advances the new paradigm where the state sets goals and regions compete to craft strategies that deliver the most benefit. This approach can be found in two different sections of the measure, which together add up to \$2.3 billion:

Watersheds: The \$1.495 billion watershed chapter is made up entirely of “competitive grants for multi-benefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities.” The legislation provides a detailed list of ways these dollars can be used, giving highest priority to “multi-benefit” projects that could reduce fire danger, for example, while also increasing water supply, improving water quality, reducing flood impacts, and replenishing aquifers. The Summit notes that Prop 1 only allocates \$38 million to the Sierra-Cascade region—meaning 0.5 percent of the bond's total funds will go directly to the upper mountain watersheds that provide two-thirds of the state's runoff. Still, the Summit letter outlines a variety of ways mountain regions can compete for more funds, connect these projects with their beneficiaries in the more populous valleys below, and ensure beneficial uses of water throughout the watershed—all keys to water sustainability.

Integrated water management: Prop 1 also allocates \$810 million to “regional water management”—a decade-long effort to connect projects in upper and lower watersheds—with the measure directing funds first to projects “that cover a greater portion of the watershed.” The Summit letter calls out several opportunities for increasing these efforts—urging lawmakers to use bond funds to encourage local water agencies to accelerate development of their newly-required groundwater management plans, for example. The Summit also calls attention to its ongoing work with cities and local water agencies to identify ways to bring multiple local governments together to develop projects that capture and store stormwater.

**3. Maximize return on investment:** Before Prop 1 passed, many stakeholders expressed concern over how the state will spend \$2.7 billion allocated to storage

projects—a looming choice between funding new dams or investing in alternative means of storage. While the bond’s storage funds won’t be allocated for years, the Summit letter notes that Prop 1 outlines a set of laudable goals for distributing these dollars—with the measure requiring the California Water Commission to create a competitive process “that ranks potential projects based on the expected return for public investment as measured by the magnitude of the public benefits provided.” The Summit letter notes several ideas for how the state can ensure these new funds help water agencies more effectively coordinate surface and groundwater storage, conveyance, and habitat restoration.

Since the debate over Prop 1 began, the Summit has made the case that implementing the bond would be as important as the passage of the measure itself. The Summit letter makes the case that the bond’s language sets the bar high—and gives the Summit’s civic leaders an opportunity to work with lawmakers to ensure these funds help California begin the long journey to water sustainability.

Source:

<http://www.caeconomy.org/reporting/entry/three-things-to-watch-for-as-lawmakers-implement-california-water-bond>

# The 2015-16 Budget: Effectively Implementing The 2014 Water Bond



MAC TAYLOR • LEGISLATIVE ANALYST • FEBRUARY 11, 2015

LAO 

## 2015-16 BUDGET

## EXECUTIVE SUMMARY

In August 2014, the Legislature approved Chapter 188, Statutes of 2014 (AB 1471, Rendon), which placed before the voters a water bond measure primarily aimed at increasing the supply of clean, safe, and reliable water and restoring habitat. On November 4, 2014, voters approved the water bond measure—Proposition 1. In this report, we (1) describe Proposition 1, (2) review the Governor's proposals to implement the bond, (3) identify key implementation principles, and (4) recommend steps for the Legislature to ensure that the bond is implemented effectively—meaning that cost-effective projects are funded and that such projects are adequately overseen and evaluated.

**Major Provisions of Proposition 1.** The proposition provides a total of \$7.5 billion in general obligation bonds for various water-related programs. Some of the larger allocations include \$2.7 billion for water storage projects and \$1.5 billion for watershed protection and restoration projects. Additional funding is provided for groundwater sustainability, regional water management, water recycling and desalination, water treatment, and flood protection. Projects funded under Proposition 1 would generally be selected on a competitive basis, based on guidelines developed by state departments. Proposition 1 also includes accountability and oversight provisions, such as limits on the amount of funding that can go to administrative costs or planning and monitoring.

**Governor's Budget Proposals.** The Governor's budget proposes to appropriate \$533 million from Proposition 1 in 2015-16. This includes \$178 million for various watershed protection and restoration activities, \$137 million for water recycling and desalination projects, and \$69 million for projects to improve drinking water in disadvantaged communities.

**Key Principles for Implementing Proposition 1.** We identify three guiding principles to inform how money is allocated to projects in order to promote transparency and ensure better outcomes. First, the state should ensure that programs are implemented in ways that further state priorities, specifically those set out in Proposition 1 and in other statutes. This will ensure that expenditures are used in ways consistent with other state activities. Second, state funds should be used to support long-term, state-level public benefits (such as improving the health of fish species) in order to ensure that taxpayers receive the most benefits from their investment. This includes identifying (1) the *portion* of an activity that provides a state-level public benefit (because a given activity may have public and private benefits) and (2) what would have happened in the absence of the bond funding. Third, administering departments should collect and evaluate data on project delivery and outcomes to better allow the Legislature and voters to understand what has been achieved with the bond dollars.

**LAO Recommendations.** We provide a series of recommendations to implement the principles we describe above by applying them to the allocations in the bond and to the specific proposals in the Governor's 2015-16 budget. While the Governor's proposals are generally consistent with the intent of the bond, we recommend steps to better ensure that the most cost-effective projects are selected for funding and that sufficient oversight and evaluation is provided. Some of our key recommendations to the Legislature include:



## 2015-16 BUDGET

- **Ensure Funding Targeted to State-Level Public Benefits.** We recommend the Legislature specify what portion and type of activities should and should not be eligible for bond funding, including which water supply and water recycling benefits are state-level public benefits. For example, water supply benefits should not be considered state-level public benefits to the extent that they accrue to private entities, such as the ratepayers of a water system.
- **Require Robust Cost-Effectiveness Criteria for Project Selection.** We recommend that state departments follow certain practices to evaluate cost-effectiveness, such as adopting grant guidelines that use (1) consistent assumptions about physical conditions and policies, (2) consistent methods to evaluate benefits, and (3) measures of past performance by grantees as a criterion for selecting projects.
- **Consult With Technical Experts When Needed.** Some proposed programs are new or have uncertainty about what specific projects or strategies are most likely to be effective. For this reason, we recommend that the state bring in expertise from outside state government to provide technical assistance for certain programs, particularly to assist the Wildlife Conservation Board develop guidelines for enhanced stream flows and the Department of Water Resources with implementation and evaluation of water use efficiency projects.
- **Require Departments to Submit Staffing Plans for All Bond-Related Activities.** Only some of the administration's proposals for positions to support Proposition 1 activities specify whether they took declining workload from other bonds into account when determining how many positions to request.
- **Facilitate Oversight of Projects, Programs, and Outcomes.** We recommend that the Legislature require departments, prior to finalizing program guidelines, to identify how the data they are collecting will allow the Legislature and the public to hold departments accountable for their outcomes. We also recommend that the Legislature require that the administration add additional information on bond expenditures to its bond website, and that it produce an annual report on progress implementing the bond.

We provide a complete listing of all of our recommendations at the end of this report.

## 2015-16 BUDGET

## INTRODUCTION

Meeting California's demands for water while protecting the environment presents several challenges. These include (1) needing to transport water and store it until it is needed; (2) providing adequate water to cities, farms, and the fish species during dry periods; (3) treating drinking water to safe levels and treating wastewater so it can be discharged back into the environment; and (4) mitigating the negative impacts of human water use on the environment. Such challenges can be intensified during droughts, such as the multiyear drought that began in California in 2011.

In order to address some of these challenges, in August 2014, the Legislature approved Chapter 188,

Statutes of 2014 (AB 1471, Rendon), which placed before the voters a water bond measure primarily aimed at providing clean, safe, and reliable water supplies and restoring habitat. On November 4, 2014, voters approved the water bond measure—Proposition 1. In this report, we (1) provide background information on Proposition 1, (2) review the Governor's proposals to implement the bond, (3) identify key implementation principles, and (4) recommend steps for the Legislature to ensure that the bond is implemented effectively—meaning that cost-effective projects are funded and that such projects are adequately overseen and evaluated.

## FUNDING CALIFORNIA'S WATER SYSTEM

California's water system is complex. This complexity can be seen in how the system is structured—with multiple sources of water that are interconnected in various ways. It is also evident in how the system is financed—using a variety of sources at the local, state, and federal level to meet the needs of urban and agricultural water users and the environment.

### Overview of Water System

**Multiple Sources of Water in California.** A majority of the state's water comes from rivers, much of it from Northern California and from snow in the Sierra Nevada Mountains. Water available underground (referred to as "groundwater") makes up roughly one-third of the state's water use and is more heavily relied on in dry years. A small share of the state's water also comes from other sources, such as capturing rainwater, reusing wastewater (water recycling), and removing the salt from ocean water (desalination).

**State's Water System Is Interconnected in Many Ways.** The various sources and uses of water are connected to one another in many ways—some direct and others more indirect. These interconnections mean that the supply and use of water in one part of the state can affect its availability in other parts of the state. First, water is often moved long distances to meet needs in parts of the state where less precipitation occurs. Specifically, the State Water Project and the federal Central Valley Project move water from rivers in Northern California through the Sacramento-San Joaquin Delta (Delta), where it is pumped into over 400 miles of canals to the Central Valley and Southern California. Thus, demands south of the Delta can put pressure on sources of water in Northern California, and additional water usage in Northern California can leave less water available for use in other parts of the state. Figure 1 (see next page) shows some of the major water sources, canals, and pipelines that move water in California.

2015-16 BUDGET

Second, water is typically used multiple times before it is discharged into the ocean or groundwater. For example, a city will often divert water from a river at one point and treat it for various purposes (such as for drinking). After using the water, the city treats the water at a wastewater treatment plant and then returns it to the river. However, to the extent that upstream users return less water than they take from a water body, it leaves less water available for downstream users or the environment.

Third, groundwater and surface water are connected. In some places, groundwater is

physically connected to water in a nearby river or water body. Moreover, groundwater is an important backstop when less surface water is available in dry years, such as during times of drought. Conversely, surface water can then be used to replenish groundwater supplies in wetter years.

**Roles of Various Governments in Water**

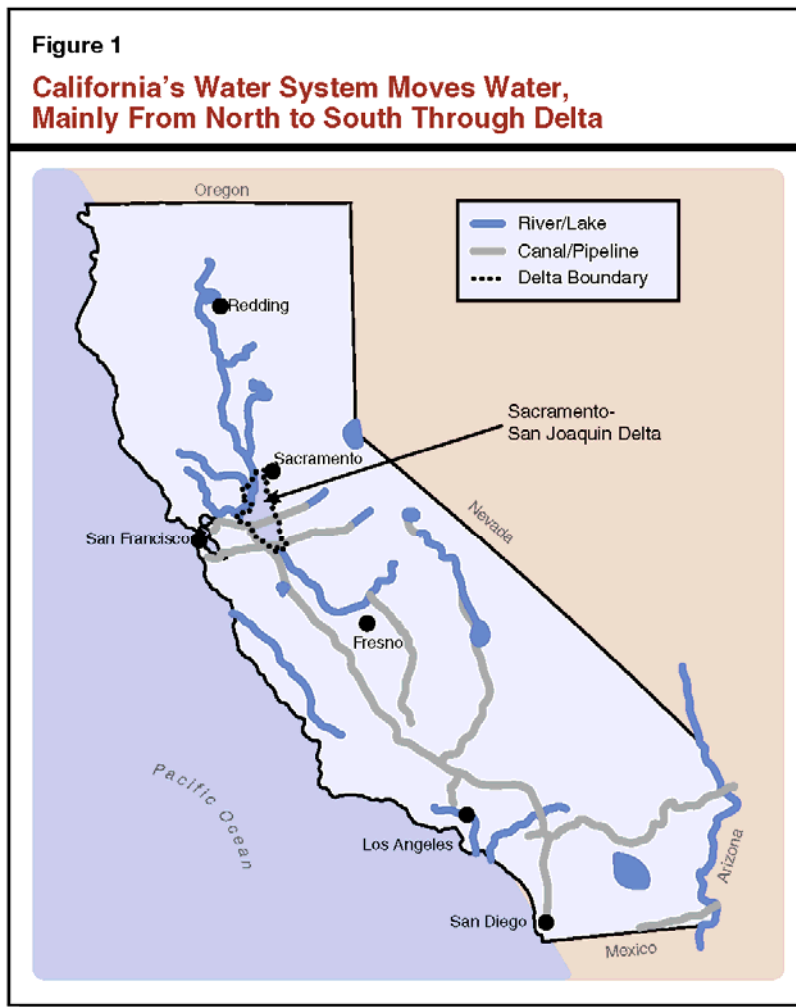
***Local Agencies Fund Most Water Programs.***

Local agencies (such as water districts, cities, and counties) provide water to urban and agricultural customers throughout the state. These local agencies account for most of the spending on water programs

in the state—roughly \$26 billion per year in recent years. About 80 percent of this spending is paid for by individuals (ratepayers) through their water bills. Local agencies also pay for projects using other sources, including state funds, federal funds, and local taxes. While most people get their water from these public water agencies, about one-sixth of Californians get their water from private water companies.

***State Also Funds Water Programs.***

The state also plays an important role in funding various water programs and activities. Specifically, the state runs programs to (1) conserve, store, and transport water around the state; (2) protect water quality; (3) provide flood control; and (4) protect



## 2015-16 BUDGET

fish and wildlife habitat. The state provides support for these programs through direct spending, as well as grants and loans to local governments, nonprofit organizations, and investor owned water

companies. (The federal government runs similar programs.) In recent years, the state has relied heavily on general obligation bonds to fund these water-related programs.

## MAJOR PROVISIONS OF PROPOSITION 1

The passage of Proposition 1 continues the use of bond funds as the primary source of state funding for water-related programs. Specifically, the proposition provides a total of \$7.5 billion in general obligation bonds for various programs. (Of this total, \$425 million is redirected from unsold bonds that voters previously approved for water and other environmental purposes.) Below, we describe the major provisions of Proposition 1.

### Categories of Spending

The bond measure provides funding for the following categories:

- **Water Storage (\$2.7 Billion).** The bond includes \$2.7 billion for new water storage projects, which could include dams and projects that replenish groundwater. Proposition 1 specifies that these funds are available only to support the following public benefits associated with storage: (1) ecosystem improvements; (2) water quality improvements; (3) flood protection; (4) emergency response, including emergency water supplies; and (5) recreation.
- **Watershed Protection and Restoration (\$1.5 Billion).** The bond provides \$1.5 billion for various projects intended to protect and restore watersheds and other habitat throughout the state. This funding could be used to restore bodies of water that support native, threatened, or endangered species of fish and wildlife; purchase land for watershed conservation purposes; reduce the risk of wildfires in watersheds; and purchase water to support wildlife. These funds include: (1) \$475 million to pay for certain state commitments to fund environmental restorations; (2) \$373 million for restoration projects throughout the state (including \$88 million specifically for the Delta); (3) \$328 million for ten state conservancies and the Ocean Protection Council, which are displayed in Figure 2 (see next page); (4) \$200 million to increase the amount of water flowing in rivers and streams (such as by buying water); (5) \$100 million for an urban creek (the Los Angeles River); and (6) \$20 million for urban watersheds.
- **Groundwater Sustainability (\$900 Million).** The bond provides \$900 million for grants and loans to promote groundwater sustainability, including \$100 million specifically for grants for projects that develop and implement groundwater plans and projects.
- **Regional Water Management (\$810 Million).** The bond provides \$810 million for regional projects that are included in specific plans developed by local communities. These projects are intended to improve water supplies, as



2015-16 BUDGET

well as provide other benefits, such as habitat for fish and flood protection. The amount provided includes \$510 million for allocations to specific regions throughout the state through the Integrated Regional Water Management (IRWM) program, \$200 million for projects and plans to manage runoff from storms in urban areas, and \$100 million for water conservation projects and programs.

- **Water Recycling and Desalination (\$725 Million).** The bond includes \$725 million for projects that treat wastewater or saltwater so that it can be

used later. For example, the funds could be used to test new treatment technology, build a desalination plant, and install pipes to deliver recycled water.

- **Drinking Water Quality (\$520 Million).** The bond includes \$520 million to improve access to clean drinking water for disadvantaged communities (\$260 million) and help small communities pay for wastewater treatment (\$260 million).

- **Flood Protection (\$395 Million).** The bond provides \$395 million for projects that both protect the state from floods and improve fish and wildlife habitat, including \$295 million to improve levees or respond to flood emergencies specifically in the Delta and \$100 million for flood control projects anywhere in the state.



**How Funds Would Be Spent**

Proposition 1 contains provisions that specify, to varying degrees, how the bond funds are to be spent. These provisions affect how the funds will be allocated, including which projects can be selected and which entities are eligible to receive funding.

**Departments Responsible for Bond Implementation.** At least 16 state departments are responsible for administering portions of Proposition 1. These departments include the Department of Water Resources

## 2015-16 BUDGET

(DWR), the State Water Resources Control Board (SWRCB), the Department of Fish and Wildlife (DFW), the California Water Commission, and various conservancies.

**Appropriations.** Proposition 1 provides a continuous appropriation to the California Water Commission for the \$2.7 billion for water storage. This means the commission would not have to go through the state budget process to spend these funds. For all other funding provided in the proposition, the Legislature generally would allocate money annually to state departments in the state budget process.

**Process for Selecting Projects.** Projects funded under Proposition 1 would generally be selected on a competitive basis. The measure specifies a process for administering departments to follow when developing guidelines for competitive grants. For example, Proposition 1 requires that such guidelines include monitoring and reporting requirements and be posted on the website of the California Natural Resources Agency (CNRA). Administering departments must hold three public meetings before finalizing their grant guidelines. Upon adoption, copies of the guidelines must be sent to the Legislature. In some cases—such as projects implemented directly by state departments—a competitive grant process is not required.

**Types of Projects Eligible for Bond Funds.** The measure provides direction on the types of projects that are eligible for bond funding. In many cases, the eligible uses are broad enough to encompass a wide variety of projects. For instance, the funding for watershed protection and restoration can go to a broad range of projects as long as they provide multiple benefits (such as improved water quality and habitat health) consistent with statewide priorities. Under

the measure, the Legislature can provide state departments with additional direction on what types of projects or programs could be chosen (whether through a competitive or other process) through statute. However, the measure states that the Legislature cannot allocate funding to specific projects. Instead, state departments will choose the projects. In addition, the measure specifically prohibits funding a canal or tunnel to move water around the Delta.

**Requirements for Matching Funds.** The \$5.7 billion provided in the proposition for water storage, groundwater sustainability, regional water management, water recycling, and water quality projects is available only if recipients provide matching funding to support the projects. The required share of matching funds is generally at least 50 percent of the total cost of the project, although this can be waived or reduced in some cases, such as when projects serve disadvantaged communities (communities where median household income is at least 20 percent below the rest of the state). The remaining bond allocations do not require matching funds.

### Accountability and Oversight Provisions

Proposition 1 also includes provisions that affect how projects would be administered and overseen. For example, the measure specifies that up to 5 percent of the bond allocations can be used for administrative costs and up to 10 percent can be used for planning and monitoring efforts. In addition, the measure requires the Department of Finance (DOF) to audit the expenditure of grant funds and allows for additional auditing in the event that DOF identifies issues of concern. Proposition 1 also requires that CNRA annually publish a list of all program and project expenditures on its website.

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## GOVERNOR’S 2015-16 BUDGET PROPOSALS

The Governor’s budget proposes to appropriate \$533 million in 2015-16 to begin implementing the \$7.5 billion available in Proposition 1. The administration has also released a multiyear expenditure plan for the bond proceeds, as shown in Figure 3. In some cases, departments are requesting that the out-year expenditures after 2015-16 be included in their base budgets. In other cases, departments would submit future budget proposals to the Legislature requesting these funds, perhaps reflecting modifications from their current plans.

Figure 4 summarizes the specific funding levels by category proposed by the Governor. Generally, after the Legislature appropriates the bond funds, departments would have three years to encumber (or commit) funds for capital projects and two additional years to spend them. This provides a total of five years from the budget appropriation for departments to spend the funds. Below, we summarize the administration’s Proposition 1 proposals for 2015-16.

**Water Storage (\$3 Million).** The Governor proposes \$3 million and 12.3 positions

(4.3 redirected) for DWR to provide administrative support to the California Water Commission for its water storage program. These positions would be supported by the continuously appropriated water storage funds.

**Watershed Protection and Restoration (\$178 Million).** The Governor’s budget includes a total of \$178 million for various watershed protection and restoration projects. This amount includes funding for:

- Projects Benefiting State and Delta.** The budget provides \$37 million and 41.5 positions (37 redirected) to DFW for competitive grants to implement habitat restoration projects statewide and within the Delta. Potential projects include restoring coastal wetland habitat, purchasing conservation easements to create strips of habitat along rivers, and installing or improving fish screens on water intakes. The DFW plans to issue annual solicitations for the next ten years to fully expend the allocations in the bond set aside for this purpose.

**Figure 3**  
**Governor’s Multiyear Funding Plan for Proposition 1 Bond Funds**  
*(In Millions)*

Purpose	Bond Allocation	2015-16	2016-17	2017-18	2018-19	2019-20	After 2019-20
Water storage	\$2,700	\$3	\$4	\$418	\$411	\$391	\$1,417
Watershed protection and restoration	1,495	178	203	206	170	433	273
Groundwater sustainability	900	22	104	159	206	206	186
Regional water management	810	57	180	239	117	190	11
Water recycling and desalination	725	137	221	177	135	27	15
Drinking water quality	520	136	113	113	88	50	10
Flood protection	395	—	—	—	—	—	387
Administration and oversight <sup>a</sup>	—	1	1	1	1	1	—
<b>Totals</b>	<b>\$7,545</b>	<b>\$533</b>	<b>\$825</b>	<b>\$1,313</b>	<b>\$1,126</b>	<b>\$1,297</b>	<b>\$2,298</b>

<sup>a</sup> Bond does not include specific allocation for bond administration and oversight. It allows the use of other allocations for this purpose.

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- Conservancy Restoration Projects.**  
 The budget includes \$84 million and 13 positions for ten state conservancies and for the Ocean Protection Council to conduct restoration and habitat conservation work. Potential projects include the acquisition and restoration

of tidal wetlands, implementation of the Lake Tahoe Environmental Improvement Program, and completion of components of the San Joaquin River restoration. The amount of funding proposed for each conservancy is shown in Figure 5 (see next page).

**Figure 4**  
**Proposition 1 Bond Funds—Governor’s 2015-16 Proposals**  
*(Dollars in Millions)*

Purpose	Implementing Departments	Bond Allocation	Proposed in 2015-16	
			Amount	Percent of Total Allocation
<b>Water Storage</b>		<b>\$2,700</b>	<b>\$3</b>	<b>—</b>
Water storage projects	CWC <sup>a</sup>	2,700	3	—
<b>Watershed Protection and Restoration</b>		<b>\$1,495</b>	<b>\$178</b>	<b>12%</b>
Various state obligations and agreements	CNRA	475	—	—
Watershed restoration benefiting state and Delta	DFW	373	37	10
Conservancy restoration projects	Conservancies	328	84	25
Enhanced stream flows	WCB	200	39	19
Los Angeles River restoration	Conservancies	100	19	19
Urban watersheds	CNRA	20	<1	1
<b>Groundwater Sustainability</b>		<b>\$900</b>	<b>\$22</b>	<b>2%</b>
Groundwater cleanup projects	SWRCB	800	1	—
Groundwater sustainability plans and projects	DWR	100	22	22
<b>Regional Water Management</b>		<b>\$810</b>	<b>\$57</b>	<b>7%</b>
Integrated Regional Water Management	DWR	510	33	6
Stormwater management	SWRCB	200	1	—
Water use efficiency	DWR	100	23	23
<b>Water Recycling and Desalination</b>		<b>\$725</b>	<b>\$137</b>	<b>19%</b>
Water recycling and desalination	DWR and SWRCB	725	137	19
<b>Drinking Water Quality</b>		<b>\$520</b>	<b>\$136</b>	<b>26%</b>
Drinking water for disadvantaged communities	SWRCB	260	69	27
Wastewater treatment in small communities	SWRCB	260	66	26
<b>Flood Protection</b>		<b>\$395</b>	<b>—</b>	<b>—</b>
Delta flood protection	DWR and CVFPB	295	—	—
Statewide flood protection	DWR and CVFPB	100	—	—
<b>Administration and Oversight</b>		<b>—</b>	<b>\$1</b>	<b>N/A</b>
Administration <sup>b</sup>	DWR and CNRA	—	1	N/A
<b>Totals</b>		<b>\$7,545</b>	<b>\$533</b>	<b>7%</b>

<sup>a</sup> With staff support from DWR.  
<sup>b</sup> Bond does not provide specific allocation for bond administration and oversight. It allows the use of other allocations for this purpose.  
 CWC = California Water Commission; CNRA = California Natural Resources Agency; DFW = Department of Fish and Wildlife, WCB = Wildlife Conservation Board; DWR = Department of Water Resources; SWRCB = State Water Resources Control Board; and CVFPB = Central Valley Flood Protection Board.



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- Enhanced Stream Flows.** The budget provides \$39 million and 4.5 positions (2 limited-term) for the Wildlife Conservation Board (WCB) to implement a program aimed at increasing stream flow. Activities could include purchasing long-term water transfers (at least 20 years) to reserve them for instream flows, implementing irrigation efficiency improvements that allow additional water to be left instream, and wetland restoration projects.
- Urban Creek – Los Angeles River Restoration.** The budget includes \$19 million for the San Gabriel and Santa Monica Mountains Conservancies to implement restoration projects along the Los Angeles River and its tributaries.
- Urban Watershed Restoration.** The budget includes \$125,000 and one position for CNRA to administer a grant program for restoring unspecified urban watersheds.

**Groundwater Sustainability (\$22 Million).**

The budget proposes \$22 million and 5.5 positions (all redirected) for DWR to fund the development of local groundwater sustainability plans and the installation of groundwater monitoring wells. The budget also includes \$600,000 and 5.5 positions for SWRCB to begin developing its groundwater cleanup program.

**Regional Water Management (\$57 Million).**

The Governor’s budget proposes \$57 million for regional water management projects. This amount includes funding for:

- IRWM.** The budget provides \$33 million and 9.1 positions (6.1 redirected) to DWR for the IRWM program, including grants for IRWM planning and grants aimed at increasing involvement of disadvantaged communities in these regional efforts.
- Stormwater Management.** The budget proposes \$600,000 and 4.5 positions for the SWRCB to begin developing a stormwater grant program.
- Water Use Efficiency.** The budget provides

\$23 million to DWR for water use efficiency projects. This includes (1) \$12.6 million and 5 positions (3 redirected) for agricultural water use efficiency projects and programs (such as providing technical assistance on implementing irrigation efficiency measures, researching crop water use, and outreach to farmers on data sources that can improve agricultural

**Figure 5**  
**Proposition 1 Proposals for Conservancy Restoration Projects**  
*(Dollars in Millions)*

	Bond Allocation	Proposed in 2015-16	
		Amount	Percent of Total
State Coastal Conservancy	\$101	\$15	15%
Delta Conservancy	50	10	20
Ocean Protection Council	30	10	32
San Gabriel Conservancy	30	10	34
Santa Monica Mountains Conservancy	30	4	14
Sierra Nevada Conservancy	25	10	41
San Diego River Conservancy	17	3	18
California Tahoe Conservancy	15	14	94
Baldwin Hills Conservancy	10	2	21
Coachella Valley Mountains Conservancy	10	3	25
San Joaquin River Conservancy	10	3	28
<b>Totals</b>	<b>\$328</b>	<b>\$84</b>	<b>26%</b>

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operations) and (2) \$10.6 million and 4 positions (1 redirected) for urban water use efficiency projects and programs (such as efforts to increase public awareness regarding the value of water conservation, provide technical assistance on water rates structures and leak detection, and reduce outdoor water use).

**Water Recycling and Desalination**

**(\$137 Million).** The Governor's budget provides \$137 million for water recycling and desalination projects. This amount includes funding for:

- **Water Recycling.** The budget proposes \$132 million and 7 positions for SWRCB's existing water recycling grant program. Potential projects include feasibility studies, demonstration projects, and larger scale water recycling projects. (We note that the Governor's budget includes an additional 27 administrative and information technology positions for SWRCB to support all of its proposed programs.)
- **Desalination.** The budget proposes \$6 million and 2 positions for DWR to fund the development of desalination projects.

**Drinking Water Quality (\$136 Million).**

The budget proposes \$136 million for SWRCB to improve drinking water quality. This amount includes funding for:

- **Drinking Water for Disadvantaged Communities.** The budget includes \$69 million and 7 positions to fund drinking water financial assistance, which is an existing SWRCB program. This program provides grants and low-interest loans to fund construction of drinking water projects, such as water treatment plants and new wells.
- **Wastewater Treatment in Small Communities.** The budget includes \$66 million and 3 positions to fund grants and low-interest loans for construction of wastewater treatment projects. This can include projects to construct new wastewater treatment plants or connect a community to an existing plant nearby. The SWRCB will use this funding to expand its existing Small Community Wastewater Program.

**Administration and Oversight (\$1 Million).**

The budget proposes \$189,000 and 1 position to CNRA for bond administration activities, such as reviewing grant program guidelines, managing cash resources for bond programs, and reporting information on bond expenditure and encumbrances. In addition, the budget proposes \$627,000 and 5 positions (1 redirected) for DWR to support various administrative activities related to Proposition 1.

## LAO PRINCIPLES FOR IMPLEMENTING PROPOSITION 1

In order to assist the Legislature regarding the implementation of Proposition 1, including its deliberations on the Governor's budget proposals for 2015-16, we developed three guiding principles. As shown Figure 6 (see next page), these principles are (1) furthering state priorities, (2) funding cost-effective projects for the state, and (3) ensuring

accountability and oversight. These principles can inform how money is allocated to projects, promote transparency, and ensure better outcomes. We recognize that there are trade-offs inherent in implementing a bond measure based on these principles. For example, conducting benefit-cost analyses for every project that is proposed for

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funding could help identify those projects that are most cost-effective. However, such a process would be very costly and ultimately impractical. Below, we discuss each of our three principles in more detail.

**Furthering State Priorities**

An important consideration when spending bond funds is how the expenditure of the funds will further the state’s priorities, specifically those laid out in the bond act as well as in other statutes. Making sure that bond funds further state priorities will ensure that expenditures are consistent with the state’s other activities and will not result in negative impacts on other state goals.

**Proposition 1 Lists Priorities for Spending Bond Funds.** Proposition 1 includes numerous priorities that reflect the proposition’s intended goals. Figure 7 lists selected priorities and requirements from the bond. As noted in the figure, some of the specified priorities apply to all funding allocations in the bond, such as those listed in the measure’s findings and general provisions. For example, the general provisions require that the funds result in public benefits addressing the state’s most critical priorities for public funding. The general provisions also state that special consideration should be given to projects that employ new or innovative technology or practices.

The bond also states that funds should be used to implement the objectives of the Governor’s Water Action Plan, which was released in January 2014. This plan identifies a series of actions that the administration believes the state should take over the subsequent five years to address a range of water-related challenges, such as reduced water supply and poor water quality. At the time of this report, the administration stated that it intends to release a report in early 2015 identifying a strategy to implement the Water Action Plan, including a schedule of activities, the estimated costs of those activities, and the expected funding source. Many of these activities will likely be funded with Proposition 1 funds.

As shown in Figure 7, Proposition 1 also provides specific goals or direction for certain funding allocations. For instance, the measure states that funds provided for watershed protection should be used to accomplish such purposes as to protect and restore aquatic, wetland, and migratory bird ecosystems, and that these improvements exceed what is required by existing environmental regulations.

**Recent Legislation Describes Additional State Priorities.** Several statutes enacted by the Legislature in recent years also lay out priorities and goals for the state’s policy on water and

the environment. For example, a package of legislation passed in 2009 established state goals for improving water supply reliability and restoring the ecosystem of the Delta and set a statewide target for a reduction in water use. In addition, Chapter 524, Statutes of 2012 (AB 685, Eng), established a

**Figure 6**

**LAO Principles for Implementing Proposition 1**

- ✓ **Furthering State Priorities.** The state should make sure that programs are implemented in ways that further its priorities, specifically those laid out in Proposition 1 and other statutes. This will ensure that expenditures are consistent with other state activities.
- ✓ **Funding Cost-Effective Projects for the State.** State funds should be used to support state-level public benefits. Projects should generate more benefits than would otherwise occur and provide benefits over a long period of time.
- ✓ **Ensuring Accountability and Oversight.** Departments should collect and evaluate data on project outcomes to better allow the Legislature and voters to understand what has been achieved with the investment of the bond dollars.



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state policy that all people have the right to safe, clean, affordable, and accessible water. Although some pieces of legislation primarily address environmental issues outside of water, they can inform how the state spends Proposition 1 funds. For example, Chapter 488, Statutes of 2006 (AB 32, Núñez/Pavley), requires a reduction in greenhouse gas (GHG) emissions. Because California’s water delivery and treatment systems are highly energy intensive, increasing water use efficiency can reduce energy use and associated GHG emissions.

**Funding Cost-Effective Projects for the State**

Another important principle when implementing Proposition 1 will be to ensure that the state uses public funds to support projects that provide the greatest amount of public benefits to the state. Below, we define both private and public benefits, including “state-level” public benefits, and identify steps to help ensure that the state maximizes such benefits from the expenditure of Proposition 1 dollars.

**Defining Private and Public Benefits.** Most activities in the economy result in private benefits paid for by private entities, such as the purchase of goods and services. Private benefits can also

include activities required to meet legal obligations, such as regulatory requirements. This is because meeting these requirements enables entities to perform other activities (such as building a desired project) that provide a direct private benefit to the regulated entity.

However, as discussed earlier, Proposition 1 intends that the investment of public funds result in the greatest *public* benefit. A public benefit is generally thought of as something that does

**Figure 7**  
**Examples of Priorities and Requirements in Proposition 1**

**Applies to All Allocations**

- ✓ Fund high priority public benefits.
- ✓ Prioritize projects that leverage other funds or produce the greatest public benefit.
- ✓ Prioritize projects that employ new or innovative technology or practices.
- ✓ Implement the California Water Action Plan.
- ✓ Have professionals in relevant fields review proposals.

**Applies to Specific Allocations**

- ✓ Implement water storage projects that provide measurable improvements to the Delta and its tributaries.
- ✓ Do not fund watershed protection activities already required by environmental regulations.
- ✓ Do not fund groundwater cleanup where there is a responsible party that could pay.
- ✓ Provide public benefits by improving groundwater storage and groundwater quality.
- ✓ Provide incentives for water agencies to collaborate on regional water management.
- ✓ Prioritize water recycling and desalination projects based on benefits such as increased water supply and water quality.
- ✓ Address the critical and immediate water treatment needs of disadvantaged, rural, or small communities.
- ✓ Implement flood protection projects that provide public safety and environmental benefits.



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not have clear private beneficiaries, or where it is too difficult to identify and charge the direct beneficiaries for the good or service. For example, protecting habitat for fish and wildlife generally provides public benefits because it is not feasible to allocate the costs of that activity to direct beneficiaries.

A given activity rarely results in only private or public benefits. This is because many programs and projects provide both private and public benefits simultaneously. For example, a given water storage project provides private benefits to the people receiving the water and also provides public benefits because it reduces flood risk for a downstream city. In addition, the extent to which an activity has public or private benefits depends on the specific circumstances. For example, when a dam releases water, that activity may have private benefits at some times (such as when the water is needed to meet regulatory requirements), but public benefits at other times (such as when the water released is above and beyond regulatory requirements to provide additional benefits for fish species).

**Funding State-Level Public Benefits.** In our view, state funds should only be used to support those activities that provide state-level public benefits. State-level public benefits provide value to the people of California as a whole, rather than specific local or regional communities, and thus should be paid for by the state. For example, it is more appropriate for the state to fund restoration at sites of statewide interest (such as Lake Tahoe) than a local park. In many cases, the same activity can have both state-level and local- or federal-public benefits. For example, restoring habitat to protect fish species that are legally protected by both the state and federal governments would provide both state- and federal-level public benefits. In such cases, state funds should only be used for the portion of the project that

provides the state-level benefit, and other levels of government should provide funds for the portion of projects that benefit them directly. We note that the bond prioritizes projects that leverage non-state funding sources, such as local and federal funds.

**Generating More Benefits Than Would Otherwise Occur.** An important consideration when spending Proposition 1 funds is ensuring that the benefits of the funded projects are “additional.” This means that the projects provide benefits above what would have been achieved in the absence of state spending and that such benefits would not be provided by private parties or other levels of government. For example, if a water district already has plans to evaluate its pipes for leaks to reduce their water loss, the state should not use its limited funds to support that activity.

**Limiting Bond Funds to Projects With Long-Term Benefits.** As a general principle, general obligation bonds should be used for the construction and acquisition of capital improvements as well as associated planning costs. Directing bond funds on long-term capital improvements ensures that bond spending provides benefits over many years. It also ensures that funded projects have a lifespan that is consistent with the repayment schedule for the bonds that fund them, so that future taxpayers do not bear the cost of projects that do not benefit them. Generally, projects that provide shorter-term benefits or that are small-scale and routine in nature are more appropriately funded through ongoing, pay-as-you-go funding sources rather than long-term bonds.

**Limiting Administrative Costs.** Each dollar spent on administrative costs within a bond program is one less dollar that is available for infrastructure projects. Thus, the state should work to ensure that administrative costs are

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contained to the greatest extent possible and that bond funds do not end up funding the costs of an agency's day-to-day program operations. Nevertheless, some level of administrative costs—including costs to plan and monitor projects—are necessary to ensure that the most cost-effective projects are selected for bond funding and that there is appropriate oversight over projects once they are funded.

***Considering Trade-Offs Among Cost-Effectiveness and Other Priorities.*** While cost-effectiveness is an important priority, in some cases it may not be entirely consistent with other key legislative priorities. In such cases, these different priorities will need to be weighed against one another. For example, the state has historically made exceptions to the principle that the state should not fund private benefits in order to address concerns about some communities' ability to pay for certain projects (such as the infrastructure to supply and treat drinking water). As previously indicated, Proposition 1 declares that every Californian should have access to clean, safe, and reliable drinking water. Accordingly, it is appropriate to fund some projects in communities that lack the ability to pay for these types of projects even if they are not the most cost-effective projects.

Additionally, there can be trade-offs between getting bond funds out quickly and planning and soliciting the most cost-effective projects. This is particularly likely to occur when departments are tasked with developing effective guidelines and soliciting proposals for new programs that they have not previously implemented. For example, SWRCB indicates that it did not request significant funding for groundwater cleanup as part of the Governor's budget because it needed additional time to consider how to best administer the new program.

### **Ensuring Accountability and Oversight**

Another important principle when implementing Proposition 1 will be to ensure accountability for the expenditure of bond funds, in order to promote transparency and good outcomes. Taking steps to promote accountability will better allow the Legislature and voters to understand what has been achieved with the investment of the bond dollars.

#### ***Defining and Valuing Accountability.***

The Legislature will want to hold departments administering the bond accountable for their activities and outcomes. A key way of achieving this is through oversight and evaluation. Such oversight and evaluation can lead to better outcomes for several reasons. First, entities tend to focus resources in areas that they will be required to measure and evaluate. Thus, by adding additional focus to measuring and reporting information on bond activities and results, it can encourage grantees and departments to achieve as much as possible with the bond funds they are allocated. Second, providing the Legislature and public with information about what is achieved with bond funds will help them understand the benefits provided by the funds. This will allow them to hold departments receiving funding under the bond accountable for the implementation of their programs and projects. Third, evaluation of project outcomes can help inform subsequent decisions on how best to implement later rounds of funding through this bond. This information can also help shape potential future bonds or state programs by identifying lessons learned, as well as the programs and practices that were (and were not) successful at achieving desired outcomes.

***Data Requirements for Accountability.*** In order to conduct the oversight and evaluation necessary for accountability, there must be sufficient and timely data. This data should not only provide information on the activities

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funded by bond dollars, but should also allow for measurement and evaluation of the outcomes that have been achieved with those funds (such as the volume of water that was recycled or the number of fish that were supported by restored habitat). For it to be useful, the data must be readily accessible

to the Legislature, researchers, and the public and must be comparable across projects, programs, and departments. Making this data readily accessible also facilitates program evaluation by third parties like universities, which can provide valuable independent assessments of projects and programs.

## LAO RECOMMENDATIONS TO PROMOTE EFFECTIVE BOND IMPLEMENTATION

In this section, we provide a series of recommendations to implement the principles described above by applying them to the allocations in the bond and to the specific proposals in the Governor’s 2015-16 budget. These recommendations are designed to better ensure that the most cost-effective projects are selected for funding and that sufficient oversight and evaluation is provided to ensure accountability for the funds spent. In our view, these recommendations build on the existing directions provided in the bond and represent a balance between adherence to the implementation principles and practical constraints. Figure 8 summarizes our recommendations.

**Governor’s Proposals Generally Consistent With Intent of Bond.** Based on our analysis, we find that the Governor’s proposals generally align with the priorities described in Proposition 1 and in other recent legislation. The proposals also provide for some accountability measures. However, we note that, in many cases, departments are still in the process of developing grant program guidelines. These grant guidelines will identify the specific selection criteria, measures of success for projects, and reporting and other requirements for grantees. As such, these grant guidelines will play a critical role in ensuring that the most effective projects are chosen and that funded projects are adequately monitored to ensure they meet their desired outcomes.

We also note that various implementing departments indicated that they plan to conduct some of the activities we recommend below. In fact, according to some departments, they have conducted these activities in the past when implementing similar programs. In some instances, we still recommend that the

**Figure 8**  
**LAO Recommendations to Promote Effective Bond Implementation**

- ✓ **Promote Cost-Effective Project Selection**
  - Ensure funding targeted to state-level public benefits.
  - Require robust cost-effectiveness criteria for project selection.
  - Consult with technical experts when needed.
  - Limit operational and administrative costs.
  - Require departments to submit staffing plans for all bond-related activities.
  - Require granting departments to demonstrate link between budget requests and bond priorities.
  
- ✓ **Oversight and Evaluation During Project Implementation**
  - Ensure data collection to support program evaluation.
  - Facilitate oversight of projects, programs, and outcomes.

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Legislature require these activities because it is important to institutionalize such requirements in order to ensure that they stay in effect even when administrative leadership and personnel change.

## Promote Cost-Effective Project Selection

Below, we make several recommendations to improve the cost-effectiveness of the projects that are ultimately selected to receive funds from Proposition 1.

### Ensure Funding Targeted to State-Level Public Benefits

As discussed above, a given activity may have public and private benefits, and whether something provides a benefit that is public or private might depend on how the project is implemented. We recommend the Legislature take actions that will ensure that bond funding targets state-level public benefits.

**Clarify Definition for Certain State-Level Public Benefits.** In many cases, departments will be choosing among projects that have both public and private benefits. In these cases, departments should choose projects with the greatest net benefits (including both private and public benefits). However, as noted above, state funds should only support the portion of the project that provides state-level public benefits. Some departments, however, have indicated that they would consider using bond funds to support certain categories of benefits that are often private. To address this issue, we recommend the Legislature pass budget trailer legislation defining public benefits for the following categories of benefits:

- **Water Supply Benefits.** Many departments intend to include certain water supply benefits—such as increased water supply and avoided water supply disruptions—in their criteria for selecting projects.

However, these benefits are often private because the benefits accrue to a water system's defined customer base. Therefore, we recommend the Legislature specify that water supply benefits are only public benefits to the extent that there is no identified group of beneficiaries (such as ratepayers) and that only these public water supply benefits are eligible for bond funding. The Legislature could exempt projects that serve disadvantaged communities from this requirement.

- **GHG Reductions.** Some departments, including SWRCB and DWR, intend to count GHG reductions from Proposition 1 projects as public benefits. For example, a water-recycling project could result in lower use of other energy-intensive water sources which could reduce GHG emissions. However, under AB 32, GHG emissions from many sectors of the economy are already limited (or capped) under the state's cap-and-trade regulations. Therefore, emission reductions in the capped sector likely would have happened without bond funding and would not provide additional state-level public benefits. As such, we recommend that the Legislature specify that GHG reductions are public benefits only if they accrue to entities outside of the capped sector.

**Limit Funds for Developing Groundwater Plans to Disadvantaged Communities.** The Governor's groundwater sustainability proposal would provide funding for communities to develop sustainable groundwater management plans. However, such plans are already required under the state's Sustainable Groundwater Management Act of 2014. Thus, we recommend the Legislature specify that funds for developing



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groundwater management plans only be available to disadvantaged communities, in order to address ability to pay concerns. This is because, as noted above, funding activities that benefit disadvantaged communities can meet important state priorities even when they do not provide clear state-level public benefits.

***Ensure Water Storage Funding Supports***

***Public Benefits.*** As noted above, Proposition 1 identifies five categories of benefits associated with water storage that may be counted as public, including ecosystem and water quality improvements. In its draft guidelines for quantifying benefits, the California Water Commission proposes to designate all benefits that fall into those categories as public benefits eligible for bond funds. However, it is possible that some of these benefits may not always be state-level public benefits. For example, a water storage project could result in a local (rather than state) public benefit if the project reduces flood risk for a specific city downstream. When the California Water Commission makes the guidelines and regulations for the program available for public comment, we recommend that the commission report to the Legislature on how it will determine which benefits are state-level public benefits. The Legislature could hold hearings if it determines that the California Water Commission's approach is not consistent with legislative intent.

***Ensure Water Recycling Funding Not Used To Meet Regulatory Requirements.*** Water recycling projects often include components that (1) treat water to very high levels of quality and (2) transport that water to an area where it can be injected into groundwater for long-term storage. State water quality regulations already require some communities to treat their wastewater to very high levels prior to it being discharged. Some grantees may request funding for water recycling projects in these areas. In such cases, the costs of the

high-level treatment portion of a water recycling project should be borne by private beneficiaries. Since such treatment is required by regulation, it should not be supported with Proposition 1 funds. However, other water recycling projects (such as infrastructure needed to recharge groundwater) might provide a public benefit if it reduces water diversions and leaves more water available for the environment. We recommend that the Legislature prohibit the use of Proposition 1 funds for the costs of water recycling projects that are associated with treatment that is already required by regulation, while allowing the use of funds for other project costs that provide state-level public benefits.

**Require Robust Cost-Effectiveness Criteria for Project Selection**

As noted above, many departments intend to consider cost-effectiveness when selecting projects to support with Proposition 1 funds. In many cases, evaluating cost-effectiveness can be challenging because the projected benefits may not be easily valued in monetary terms. For example, there is no specifically defined value associated with benefits from ecosystem improvements, such as increased fish and wildlife populations. Accordingly, performing detailed benefit-cost analyses are not typically feasible, particularly for smaller projects. Nonetheless, we have identified several key criteria that state departments should use to evaluate cost-effectiveness, as described below. We note that the California Water Commission is in the process of developing methods for quantifying public benefits, including ecosystem improvements. The commission expects to finalize these methods in 2017. Such methods could provide lessons for other departments as they revise grant program guidelines for future rounds of bond funding.

***Require All Guidelines to Include Certain Cost-Effectiveness Criteria.*** We find that there are several general steps that all departments

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should take as they consider the cost-effectiveness of projects. We note that some state departments with existing programs have taken these steps in previous grant guidelines. Specifically, we recommend that the Legislature require in budget trailer legislation that all state departments granting Proposition 1 funds adopt guidelines that include:

- ***Clear Assumptions About Physical Conditions and Policies.*** We recommend the Legislature require granting departments to establish clear baselines for grant applicants to use when identifying the benefits and costs of their projects. These baselines would identify what conditions should be assumed as having occurred in the absence of this funding. For example, when an agency solicits water supply proposals, it should require applicants to use the same assumptions about how much water would be available in the absence of the additional funding. These baselines should include assumptions about physical conditions in the future, as well as reasonably foreseeable policy changes. Specifying baselines in this way ensures easier comparison among project proposals and that project proponents cannot increase the estimated benefits of a project by selecting favorable assumptions. Moreover, establishing clear baselines allows the granting department to consistently evaluate the degree to which a project provides state-level public benefits.
- ***Consistent Methods to Evaluate Benefits.*** We recommend that the Legislature require each granting department to develop consistent methods that its grant applicants would use when estimating

the benefits of their proposed projects. In some cases, such as funding for water storage, it may make sense to quantify all benefits associated with each project because the cost of performing such an analysis is likely to be small relative to the cost of each project. In other cases where such an analysis is too costly, state departments could require applicants to identify feasible alternatives and evaluate them to see if they are more cost-effective. For example, there are multiple ways of addressing the consequences of contaminated groundwater. In areas with large ratepayer bases, chemically treating the water before delivering it to customers may be cost-effective. On the other hand, in smaller communities, drilling a new well in an uncontaminated basin may be more cost-effective given the significant capital costs of building a treatment plant.

- ***Measures of Past Performance.*** We recommend that the Legislature require that one of the criteria departments consider when reviewing project proposals is the grant applicant's performance in completing projects in the past. Measures of past performance should include how actual benefits and costs of previously funded projects match the proponent's initial estimates. When evaluating past performance, departments will want to consider the extent to which the grantee had control of the project's outcomes. Considering past performance can create incentives to ensure that grant applicants accurately estimate the benefits and costs of their proposed projects. This is because applicants will know that if they do not achieve the outcomes identified in their

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current project, their future projects may not be funded in subsequent rounds of funding.

**Require WCB to Address Cost-Effectiveness**

**Concerns Regarding Enhance Stream Flow**

**Proposal.** As indicated above, the Governor's budget includes \$39 million for WCB to implement a program aimed at increasing stream flows, such as by purchasing water or paying farmers to take land out of production. We have significant concerns over the state's ability to ensure that the program is carried out in a cost-effective manner. These include concerns that the program might:

- **Pay Excessive Costs for Water Transfers.** The Governor's budget proposes bond expenditures in each of the next five fiscal years that could include purchases of water. It is possible that the state would pay a much higher-than-normal price for purchasing long-term contracts for water, particularly during a drought. Although data on the prices paid for water transfers are limited, there have been numerous reports of record prices during the current drought. This raises the concern that if the state begins purchasing water rights this year while the drought is ongoing, it would likely face higher prices than it would in wetter years.
- **Not Produce Additional Benefits.** The reductions in water use resulting from spending Proposition 1 dollars might not be in addition to what would have happened absent such funding. For example, WCB reports that it would be willing to fund some water efficiency improvements—such as more efficient irrigation systems—that might have been installed anyway. This means that there would be no net increase in water availability for the investment made.

- **Duplicate Regulatory Requirements.** Future regulatory actions might accomplish a similar end at lower cost to the state. For example, the Governor's budget proposes funding for SWRCB and DFW to reevaluate the amount of water that is needed to protect public trust values (such as fish) in several high priority streams. These efforts are expected to be completed in the next few years and might result in regulatory requirements that leave more water in streams without requiring state spending.

According to WCB, it plans to address some of the above concerns in the grant guidelines for the program, which are scheduled to be finalized in May 2015. However, to the extent that the final guidelines do not address these concerns, the cost-effectiveness of the program could be significantly reduced. Therefore, we recommend that the Legislature direct WCB to report at budget hearings on how it will address these concerns. If WCB's responses are not adequate, the Legislature could pass budget trailer legislation that directs WCB to include in their guidelines specific requirements to address these concerns. For example, this could include (1) conducting a "reverse auction"—where water sellers bid to offer the lowest price—for water purchases to ensure the state gets the lowest price, (2) setting a maximum water price WCB is willing to pay to contain costs, (3) prohibiting the use of funds for projects that would otherwise occur, and (4) prohibiting water purchases in watersheds until SWRCB has completed up-to-date instream flow studies and regulations for those watersheds.

**Consider Net Water Savings When Reviewing Water Use Efficiency Proposals.** The DWR indicates that it intends to count water savings as a public benefit eligible for state funds when implementing the Governor's agricultural and

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urban water use efficiency budget proposals. However, some of those water savings may be used by the grantee for other purposes or by other water users who would otherwise not receive water under their right. For example, a farm that transitions from flood irrigation to more efficient drip irrigation may not reduce water consumption, but may increase crop yields while using the same amount of water. In these cases, water use efficiency measures might not result in additional water being left in streams for fish species. The California Water Plan, updated by DWR in 2014, accounts for these challenges in its definition of “net water savings.” (This plan describes current and future water conditions and potential management strategies to meet demands for water.) Accordingly, we recommend the Legislature require DWR to use this definition when calculating water savings for the purpose of scoring water use efficiency proposals.

#### **Consult With Technical Experts When Needed**

As discussed earlier, CNRA is required to review grant guidelines for consistency with the requirements of the bond. According to CNRA, it plans to actively review guidelines and provide feedback to administering departments on selection criteria and processes. The CNRA also plans to review the grant agreements and project-selection processes of the administering departments, as well as bring in technical experts from other state departments as needed. We believe these are very positive steps in helping promote cost-effectiveness in the selection of projects. In fact, Proposition 1 requires departments to use the best available science when making decisions, such as on project selection and funding. In some cases, state staff may not be aware of the latest developments in the relevant scientific research (such as on behavioral responses to water conservation efforts). Thus, it can be valuable to

bring in expertise for assistance from outside of state government. Outside expertise may be particularly important for programs that are new or where there is uncertainty around what types of projects or strategies are the most effective. As such, we recommend departments:

- ***Utilize Outside Experts in Developing Guidelines for Enhanced Stream Flow.*** The WCB anticipates funding a variety of activities to enhance stream flows, including acquisitions of water rights. In order to address some of the above concerns regarding the cost-effectiveness of the program, we recommend that CNRA bring in outside experts (such as water lawyers and academic researchers) to assist WCB in developing program guidelines. This would help ensure that the selection process is designed to identify those projects that will achieve state-level public benefits.
- ***Utilize Outside Experts to Implement and Evaluate Water Use Efficiency.*** Under the Governor’s proposal, some of the water efficiency funding would support public education to change public perception and actions, as well as support other water conservation measures. There is ongoing research on behavioral responses to various water efficiency strategies, as well as how long people continue to implement these strategies. Outside technical experts (such as academic researchers) could help DWR implement and evaluate these measures.

#### **Limit Operational and Administrative Costs**

In addition to funding projects, the administration is proposing to use some of the Proposition 1 bond funds for various operational and administrative activities. As mentioned previously, in some instances, spending dollars on



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such activities can have merit. However, since some departments (such as conservancies) have a history of funding a large share of their ongoing operations from bonds, we recommend that the Legislature take actions to limit operational and administrative costs. To the extent large amounts of funding are used for operational and administrative costs, less funding would be available for constructing projects.

***Specify Amount of Operational Funding for San Diego River Conservancy.*** The Governor's budget proposes budget bill language that would provide the San Diego Conservancy flexibility to spend its proposed funding on state operations, capital outlay, or local assistance—with the exact allocations to be determined by the conservancy at a later date. In some instances, we recognize that departments might not have good estimates of how much of their funding they will provide as grants to local versus state departments. In such cases, it may be reasonable for the departments to have some flexibility to spend funds for either purpose. However, in order to ensure that the amount of bond funds going to operational activities rather than project costs is justified, it is important for the Legislature to understand how much of the bond funds are going towards state operations. Thus, we recommend the Legislature reject the proposed budget bill language and require the San Diego Conservancy to specify the amounts it plans to spend on state operations versus other purposes. The conservancy could request adjustments to the specific appropriation levels in future budgets as necessary.

**Require Departments to Submit Staffing Plans for All Bond-Related Activities**

Prior to taking actions on the Governor's various Proposition 1 proposals, we recommend that the Legislature require the administering departments to submit staffing plans for all

bond-related activities (including prior bonds as well as Proposition 1). The Governor's budget proposes to fund a total of 158 positions (including 100 new positions) in 2015-16 to implement Proposition 1, as shown in Figure 9. The administration also identifies the need for additional positions in future years. Some of the positions requested are for new programs, while other positions are proposed for existing programs that have some staff already in place. Importantly, some departments are likely to have reduced workload in the coming years associated with administering programs funded from previous bonds, such as Proposition 84, Proposition 1E, and Proposition 50. However, only some of the administration's proposals specify whether they took that baseline and declining workload into account when determining how many positions to request. For example, the SWRCB proposes 54 new positions largely to administer three existing programs—small community wastewater, drinking water, and water recycling—but has not yet fully explained that this number of new positions is warranted. This information is important to have in order to understand whether the proposals minimize the administrative costs of bond implementation.

**Require Departments to Demonstrate Link Between Budget Requests and Bond Priorities**

In most cases, we find that the administration's proposals for Proposition 1 funding further the purposes of the bond. However, there are cases where the proposals do not appear to meet key requirements in the bond. For these particular proposals, we recommend below that the administering departments report at budget hearings how their project selection processes will be consistent with the bond.

***Require CNRA to Report on How Conservancy Guidelines Align With Bond Priorities.***

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Proposition 1 requires that conservancy projects be selected competitively and address water-related purposes, such as to remove barriers to fish passage and to protect and restore aquatic, wetland, and migratory bird ecosystems. However, the Governor’s proposals related to the Santa Monica Mountains Conservancy, Baldwin Hills Conservancy, and San Joaquin River Conservancy appear to conflict with one or more of these requirements. Specifically, these proposals appear to fund (1) specific projects that might not be acquired through a competitive process (such as acquisition of particular parcels of land) and (2) projects that are not primarily water-related (such as trails). The CNRA indicates that it will ensure that the conservancy grant selection processes are competitive and result in projects that primarily have a water-related purpose. In order to help ensure that the conservancy bond funds are allocated in a manner consistent with the priorities laid out in Proposition 1, we recommend that CNRA report at budget hearings this spring on its project selection process and guidelines.

***Require SWRCB and DWR to Report on How Water Recycling and Desalination Guidelines Meet Bond Requirements.***

The Governor’s budget proposals for water recycling and desalination reflect continuations of existing grant programs operated by SWRCB

and DWR. Both entities intend to use modified versions of their existing program guidelines to allocate Proposition 1 bond funds. As noted above, Proposition 1 requires that special consideration be given to new, innovative technologies in the allocation of funds. However, SWRCB and DWR’s existing guidelines do not give preference to research projects or projects that use innovative technology, and the departments have not indicated whether they intend to include such a preference. Thus, we recommend that DWR and SWRCB report at budget hearings on how they intend to modify existing grant guidelines to incorporate this requirement. This will help ensure that these proposals direct funding to the priorities described in the bond.

**Figure 9**  
**Staff Requested in 2015-16 to Implement Proposition 1**

Department	Staff Requested	Activities Supported
SWRCB	54	<ul style="list-style-type: none"> <li>• Groundwater cleanup projects</li> <li>• Stormwater management</li> <li>• Water recycling</li> <li>• Drinking water for disadvantaged communities</li> <li>• Wastewater treatment in small communities</li> </ul>
DWR	43	<ul style="list-style-type: none"> <li>• Water storage project staff support (for CWC)</li> <li>• Groundwater sustainability plans and projects</li> <li>• Integrated Regional Water Management</li> <li>• Water use efficiency</li> <li>• Desalination</li> <li>• Administration</li> </ul>
DFW	42	<ul style="list-style-type: none"> <li>• Watershed restoration benefiting state and Delta</li> </ul>
Conservancies	11	<ul style="list-style-type: none"> <li>• Watershed protection and restoration projects</li> <li>• Urban creek—Los Angeles River restoration</li> </ul>
WCB	5	<ul style="list-style-type: none"> <li>• Enhanced stream flows</li> </ul>
CNRA	4	<ul style="list-style-type: none"> <li>• Various state obligations and agreements</li> <li>• Urban watersheds</li> <li>• Ocean Protection Council</li> <li>• Administration</li> </ul>
<b>Total</b>	<b>158</b>	

SWRCB = State Water Resources Control Board; DWR = Department of Water Resources; CWC = California Water Commission; DFW = Department of Fish and Wildlife; WCB = Wildlife Conservation Board; and CNRA = California Natural Resources Agency.

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## Oversight and Evaluation During Project Implementation

Since most of the bond-funded programs will be administered over a number of years, it is important for the Legislature to receive regular updates regarding the status of programs, as well as information to evaluate whether bond expenditures are meeting legislative goals and reaching outcomes cost-effectively. Below, we recommend that the Legislature take steps to (1) ensure that departments collect and evaluate data on program and project performance and (2) facilitate oversight by requiring CNRA to post additional information online and report on its progress implementing the bond.

### Ensure Data Collection to Support Program Evaluation

**Identify Outcome Measures Prior to Approval of Guidelines.** A critical part of ensuring that adequate information is available to measure the success of individual projects, as well as programs as a whole, is to ensure that the best outcome measures are selected and reported. The bond requires administering departments to identify indicators of outcomes, which it calls “metrics of success.” However, Proposition 1 does not specify what these indicators should be, and departments are still actively in the process of identifying them.

The bond requires that grant guidelines be posted publicly 30 days prior to adoption. The Legislature could use this period, though brief, to evaluate whether the guidelines include meaningful outcome measures that will allow it to assess whether programs are likely to meet legislative goals. For example, an agency might propose to use the number of acres acquired as the outcome measure for a habitat program. However, this measure may not be sufficient to determine the actual benefit to the species the program intends to protect. In that case, the department should

identify additional measures, such as estimates of species recovery.

We recommend that the Legislature pass budget trailer legislation requiring departments, prior to finalizing guidelines, to identify how the data they are collecting will allow the public and the Legislature to (1) evaluate the outcomes of projects and programs, (2) compare the reported outcomes of different projects and programs, and (3) hold state departments and grantees accountable for those outcomes.

**Reserve Some Bond Funds for Third-Party Evaluations.** For some grant recipients or some types of projects, it may be particularly challenging to identify and evaluate outcome measures. For instance, quantifying the benefits of ecosystem restoration activities can require specific monitoring expertise. Similarly, activities such as public information campaigns can be difficult to evaluate. In such cases, it might be valuable to bring in third-party technical experts to assist in quantifying the effectiveness of programs. This would provide an outside perspective on the effectiveness of programs and take advantage of technical expertise that grantees do not have and that the granting departments cannot provide. Thus, we recommend that CNRA reserves some bond funding to fund third-party evaluations, focusing on areas of concern or that may be difficult to measure. The CNRA could request additional funding from the bond in the future.

### Facilitate Oversight of Projects, Programs, and Outcomes

**Require CNRA to Post Additional Information Online.** Proposition 1 requires the administration to post a list of all program and project expenditures on CNRA’s website. We note that the administration currently maintains a bond accountability website, which serves as a valuable resource for the public, Legislature, and other stakeholders to find basic

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information on bonds passed by voters in 2006. Such information includes the projects that received funding, the amount of funding allocated to each project, and the project's status (whether it is in progress or complete).

The CNRA indicates that it is in the process of improving the website to make information more accessible, such as by adding the ability to search for individual projects. The agency also anticipates posting information about program outcomes, which will represent a substantial improvement over the current website. We recommend that, in addition to the information CNRA plans to post, the Legislature approve budget trailer legislation directing the agency to include information on changes to project timelines and current project spending in order to facilitate oversight of these projects and funds.

***Use Legislative Process to Oversee Project Selection and Implementation.*** Since the Legislature will not be selecting specific projects for bond funding—and in the case of water storage, will not be appropriating the funding—legislative oversight over the implementation of Proposition 1 will be important. An effective way of providing such oversight is through legislative hearings at important junctures in the implementation of the bond. For example, the Legislature may wish to hold oversight hearings once grant guidelines are proposed. We recognize, however, that it may not be feasible for the Legislature to conduct hearings for all grant solicitations. Thus, it may wish to focus on the larger bond allocations and the ones that are of greater legislative concern. Such allocations could include water storage, groundwater cleanup, watershed restoration programs implemented by conservancies, and the instream flow funding.

In addition to separate oversight hearings, we expect that budget committee hearings will provide another important opportunity to conduct legislative oversight. For example, in the past,

departments have faced challenges completing some bond funded projects in a timely manner and have had to request reappropriations. In some cases, there are reasons beyond the administering department's control for project delays, such as difficulty selling bonds due to the state's financial condition or poor weather. In other cases, however, frequent project delays might be a sign of administrative problems or unexpected barriers. In either case, when departments seek reappropriations, we recommend the Legislature inquire about the status of projects and address any challenges causing project delays. Such information could be useful in prompting changes that could get those projects back on track, as well as to inform how future funding programs could be better implemented.

***Require Annual Report by CNRA on Bond Funded Activities.*** In addition to the information provided online and in oversight hearings, we find there would be value to the Legislature in receiving an annual report on Proposition 1 summarizing funded activities and outcomes. Given the number of departments with roles in implementing Proposition 1, we think it would be best to have one central entity be responsible for regularly reporting on bond activities and outcomes. Recognizing the role CNRA already plays in overseeing almost all the departments involved, the agency is a logical choice for this responsibility. Accordingly, we recommend that the Legislature pass budget trailer legislation requiring CNRA to complete an annual report on Proposition 1 bond activities over the life of the bond. In order to help inform legislative budget hearings on Proposition 1, we recommend that this report be released along with the Governor's January budget proposal.

Specifically, these reports should provide summaries of major activities, accomplishments, challenges, and outcomes. They should also list appropriations and encumbrances on a program level, as well as grant awards and expenditures on a



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project level. This level of information will (1) serve as a consolidated, single source of information on the implementation of Proposition 1, (2) facilitate

legislative engagement and oversight, and (3) exceed what will be included on the administration's website, such as a discussion of accomplishments and challenges.

## CONCLUSION

Proposition 1 provides the state with an opportunity to improve its water-related infrastructure. If implemented effectively, the

projects funded with Proposition 1 bond monies could help the state make significant progress towards achieving a variety of water-related

goals, such as improving access to clean, safe, and reliable water supplies and restoring habitat throughout the state. Toward that end, this report provides a number of specific recommendations designed to ensure that bond funds are targeted to the most cost-effective projects and that there is adequate oversight and evaluation of those projects. Figure 10 summarizes our recommendations pertaining to all bond allocations, and Figure 11 summarizes our specific recommendations on the Governor's Proposition 1 proposals.

**Figure 10**

### Summary of Recommendations for All Allocations

#### Promote Cost-Effective Project Selection

- ✓ Define portion of water supply and greenhouse gas reduction benefits that are public benefits eligible for funding.
- ✓ Require state granting departments to adopt guidelines that include:
  - Clear assumptions about physical conditions and policies.
  - Consistent methods to evaluate benefits.
  - Measures of past performance.
- ✓ Require departments to submit staffing plans for all bond-related activities.

#### Oversight and Evaluation During Project Implementation

- ✓ Review outcome measures when available.
- ✓ Require departments to identify how the data they are collecting will allow public and Legislature to:
  - Evaluate the outcomes of projects and programs.
  - Compare outcomes of different projects and programs.
  - Hold departments and grantees accountable for those outcomes.
- ✓ Reserve some funding for third-party evaluations.
- ✓ Require CNRA website to include information on changes to project timelines and current project spending.
- ✓ Hold oversight hearings once grant guidelines are proposed.
- ✓ Use budget hearings to evaluate program progress.
- ✓ Require CNRA to provide annual written report on:
  - Summaries of major activities, accomplishments, challenges, and outcomes.
  - List of appropriations and encumbrances on a program level and grant awards and expenditures on a project level.

CNRA = California Natural Resources Agency.

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Figure 11

**Summary of Recommendations on Governor’s Proposals**

Issue	Governor’s Proposal	LAO Recommendation
<b>Water Storage</b>		
Water storage—DWR	\$3 million and 12 positions for DWR to provide administrative support to CWC for its water storage program.	<ul style="list-style-type: none"> <li>Require CWC to report to the Legislature on how it will determine what are state-level public benefits.</li> </ul>
<b>Watershed Restoration and Protection</b>		
Conservancy restoration projects	\$84 million and 13 positions for ten state conservancies and for the Ocean Protection Council to conduct restoration and habitat conservation work. Includes budget bill language (BBL) to allow SDC to transfer funds among purposes.	<ul style="list-style-type: none"> <li>Reject BBL and require the SDC to specify amounts to be spent on state operations versus other purposes.</li> <li>Require CNRA to report at budget hearings on conservancies’ project selection process and guidelines.</li> </ul>
Enhanced stream flow—WCB	\$39 million and 4.5 positions for WCB to increase stream flow, such as by purchasing long-term water transfers (at least 20 years) and implementing irrigation efficiency improvements.	<ul style="list-style-type: none"> <li>Ensure that under WCB grant guidelines (1) the state pays a reasonable price for purchasing water, (2) the reductions in water use would be additional to what would have happened otherwise, and (3) WCB’s purchases of water or other activities do not duplicate regulations.</li> <li>Utilize outside technical experts (such as water lawyers) in developing guidelines.</li> </ul>
<b>Groundwater Sustainability</b>		
Groundwater sustainability plans and projects—DWR	\$22 million and 5.5 positions for DWR to fund the development of local groundwater sustainability plans and the installation of groundwater monitoring wells.	<ul style="list-style-type: none"> <li>Require funds for developing groundwater management plans only be available to disadvantaged communities.</li> </ul>
<b>Regional Water Management</b>		
Water use efficiency—DWR	\$23 million and 9 positions to DWR for agricultural and urban water use efficiency projects.	<ul style="list-style-type: none"> <li>Require use of Water Plan definition of “net water savings” when calculating benefits.</li> <li>Utilize outside technical experts (such as academic researchers) to implement and evaluate water use efficiency projects.</li> </ul>
<b>Water Recycling and Desalination</b>		
Water recycling—SWRCB	\$132 million and 7 positions to expand SWRCB’s existing water recycling grant program.	<ul style="list-style-type: none"> <li>Prohibit funding the costs of water recycling projects that are associated with treatment already required.</li> <li>Require SWRCB to report at budget hearings on how new, innovative technologies will be prioritized.</li> </ul>
Desalination—DWR	\$6 million and 2 positions for DWR to fund the development of desalination projects.	<ul style="list-style-type: none"> <li>Require DWR to report at budget hearings on how new, innovative technologies will be prioritized.</li> </ul>
<small>DWR = Department of Water Resources, CWC = California Water Commission, SDC = San Diego Conservancy, CNRA = California Natural Resources Agency, WCB = Wildlife Conservation Board, and SWRCB = State Water Resources Control Board.</small>		

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**LAO Publications**

This report was prepared by Anton Favorini-Csorba and Helen Kerstein, and reviewed by Brian Brown. The Legislative Analyst's Office (LAO) is a nonpartisan office that provides fiscal and policy information and advice to the Legislature. To request publications call (916) 445-4656. This report and others, as well as an e-mail subscription service, are available on the LAO's website at [www.lao.ca.gov](http://www.lao.ca.gov). The LAO is located at 925 L Street, Suite 1000, Sacramento, CA 95814.

# Capital Improvement Projects



Yucaipa Valley Water District

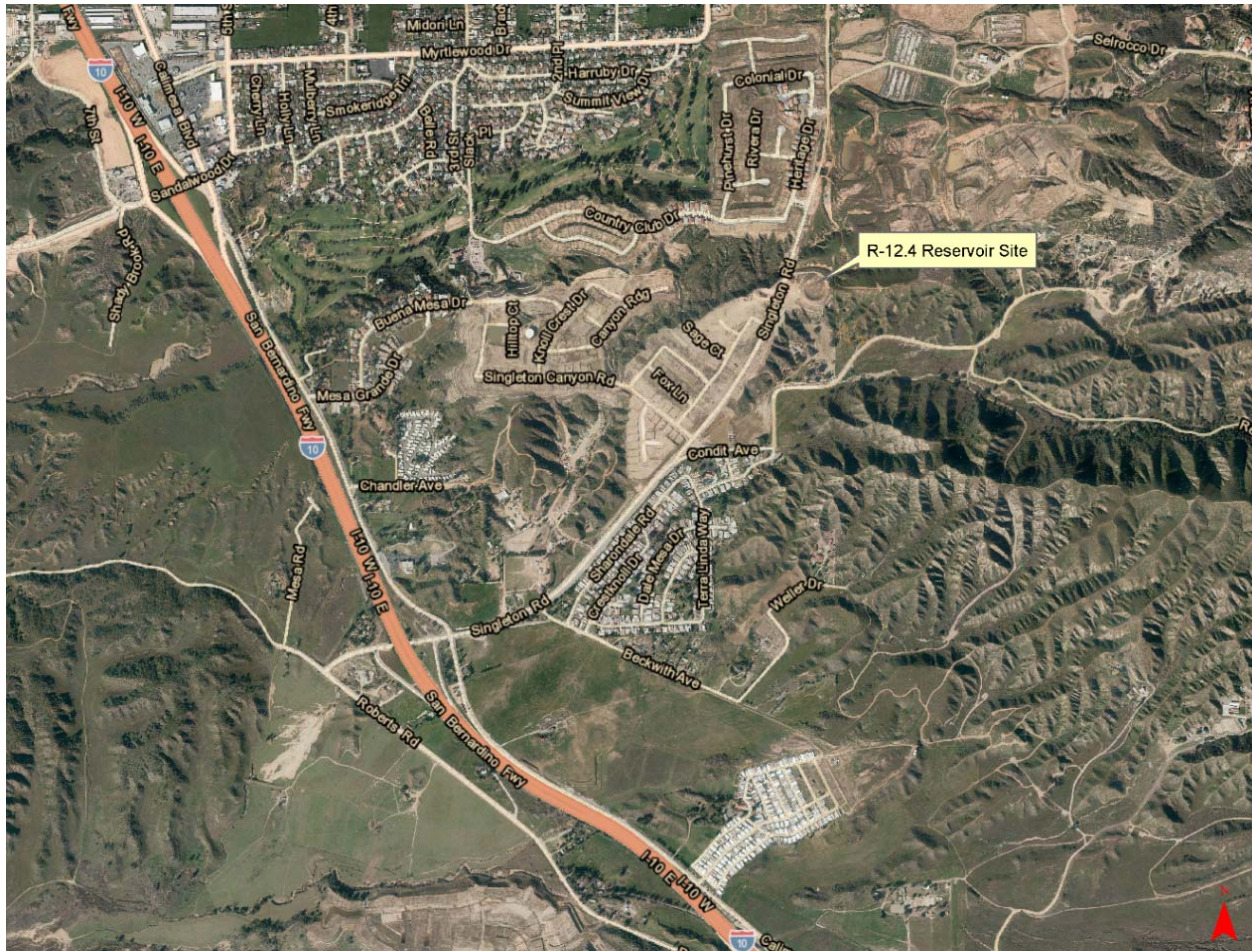




**Date:** February 24, 2015

**Subject:** Status Report on the Construction of a 6.0 Million Gallon Drinking Water Reservoir R-12.4 - Calimesa

At the regular meeting on July 16, 2014, the Board authorized the solicitation of bids for the construction of a 6.0 Million Gallon R-12.4 Reservoir located on Singleton Road in Calimesa [Director Memorandum No. 14-060].



On November 19, 2014, the Board of Directors awarded the construction contract for the reservoir facility to Gateway Pacific Contractors [Director Memorandum No. 14-091].

The purpose of this agenda item is to provide an update on the progress of the reservoir construction project.









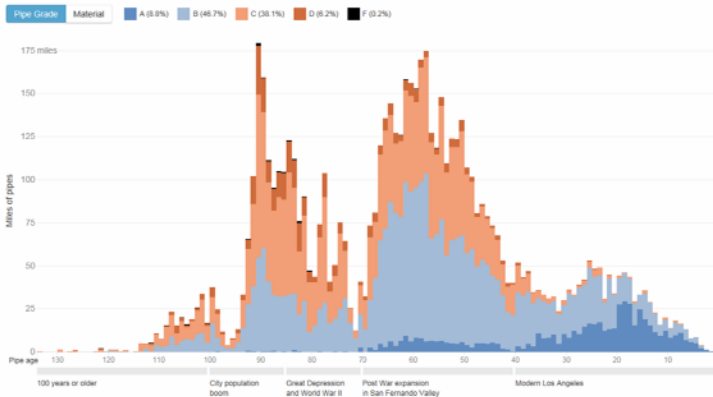
Date: February 24, 2015

Subject: Status Report on the 2015 Water Pipeline Replacement Program

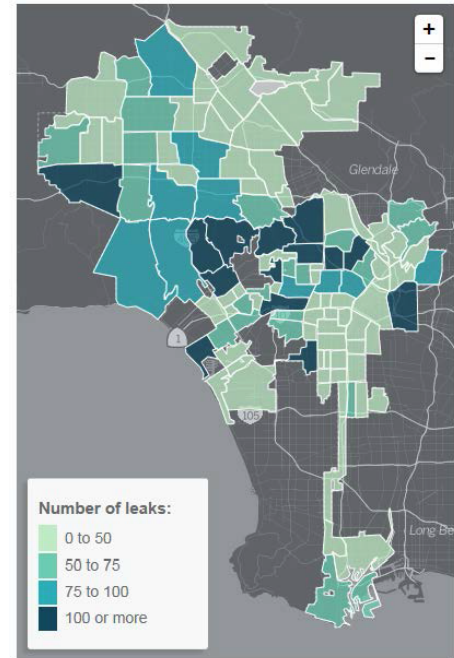
On February 16, 2015, the Los Angeles Times published a detailed article about the replacement costs associated with aging water pipelines in the service area of the Los Angeles Department of Water and Power (attached). Two of the most prominent illustrations in the article were the leaks by area from 2010 to 2014 (right) and the age of the water mainlines installed in the City of Los Angeles (below). Both illustrations are included in the newspaper article at a larger scale.

L.A.'s aging water mains

The DWP uses letter grades to prioritize water mains for replacement in the city's 6,730-mile network.



Leaks by area, 2010 to 2014

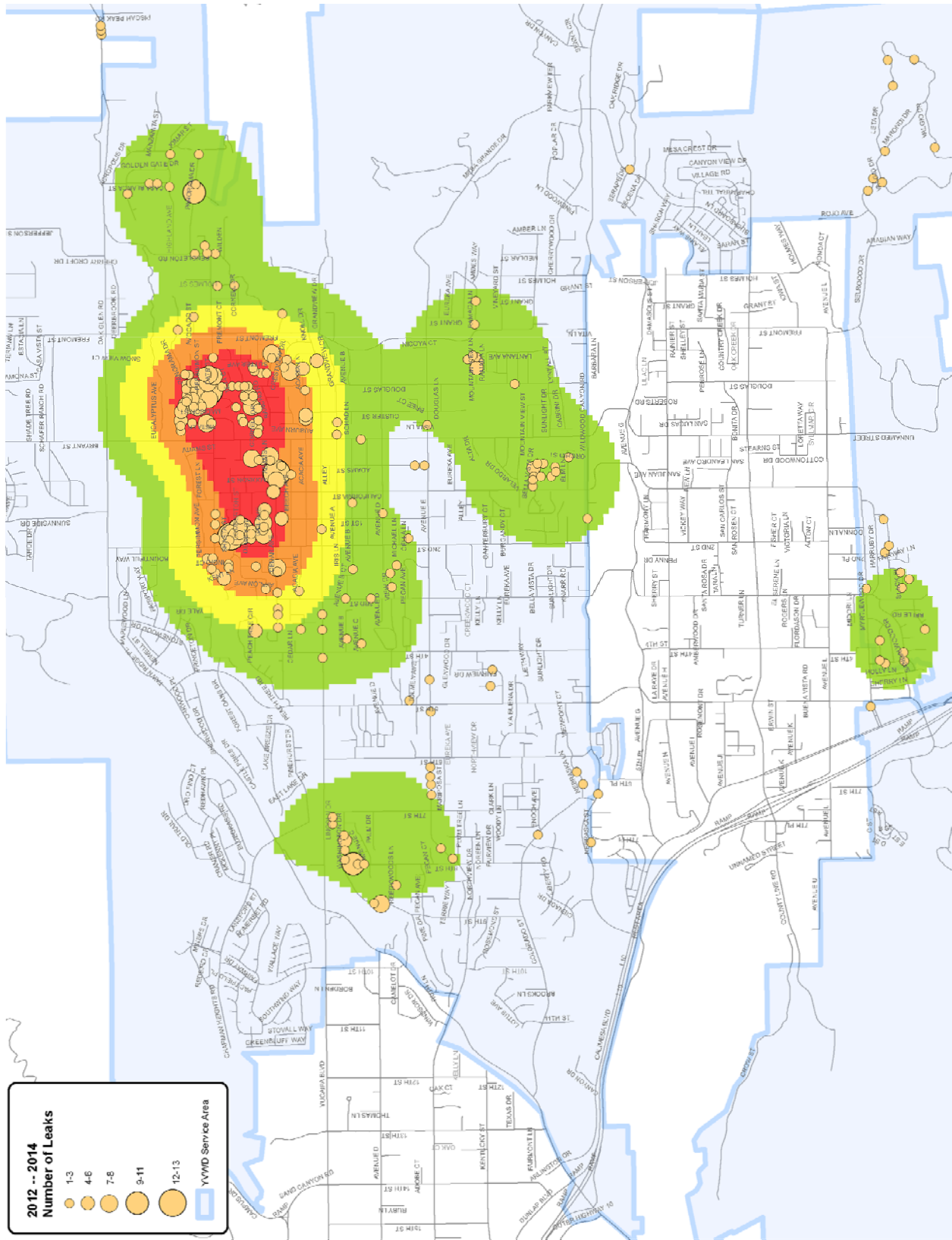


Sources: Los Angeles Department of Water and Power, MapBox and OpenStreetMap.

The infrastructure replacement issues facing the Los Angeles Department of Water and Power are the same issues facing water agencies throughout the country. Water utilities need to actively focus on the replacement of water infrastructure to reduce liabilities, improve fire protection, and protect the high quality drinking water provided to their communities.

Over the past several years, the Yucaipa Valley Water District has focused on the replacement of water pipelines by assigning a higher priority to the most leak prone pipelines. This methodology is used to identify an area that is beginning to show signs of pipeline fatigue and failure. Once an area has been identified, a water pipeline replacement project is defined to replace the water mainlines in the vicinity of the failing water pipeline. This usually results in a project that replaces old water pipelines within a city block. A couple of the pipeline replacement projects that were identified using this methodology are attached at the end of this workshop memorandum.

The following map illustrates the recent leak history within the District's service area and how most of the leaks are occurring on pipelines installed during the 1950's to the 1970's. As described in the L.A. Times article, the older pipelines (throughout the country) are now at the end of their useful life.





The District staff is in the process of identifying the specific analytical statistical parameters that best represent the pipeline failures. Once this calculation is perfected and the high priority leak prone pipelines have been replaced, the District staff intends on implementing a new forecasting methodology that will provide a predictive analysis for identifying pipeline replacements.

While water utilities recognize the advantage of implementing an active replacement program like the one described above, the biggest issue is to secure sufficient funding to stay ahead of the aging infrastructure. As described in Workshop Memorandum No. 15-024, the District staff is proposing that the Board of Directors assign the cost savings from the refinancing of the 2004A Certificates of Participation to offset the future costs associated with aging water infrastructure such as pipelines, wells and reservoirs. This source of funding will allow the District to utilize a pay-as-you-go methodology for the replacement of aging infrastructure. If this level of funding is insufficient to keep up with the aging infrastructure, the District staff may need to look at other funding methods to stay ahead of this infrastructure issue.

# Los Angeles Times

## L.A.'s aging water pipes; a \$1-billion dilemma

By [Ben Poston](#) and [Matt Stevens](#)

Feb. 16, 2015

The water main break that flooded Nowita Place in 2013 wasn't the kind of spectacle that brought TV cameras. Water sprayed a foot in the air through a hole in the buckled asphalt, leaving residents in the Venice neighborhood without water service for hours.

But the break fit an increasingly common pattern for L.A.'s aging waterworks: The pipe was more than 80 years old. It was rusted out. And it was buried in corrosive soil.

About one-fifth of the city's water pipes were installed before 1931 and nearly all will reach the end of their useful lives in the next 15 years. They are responsible for close to half of all water main leaks, and replacing them is a looming, \$1-billion problem for the city.

"We must do something about our infrastructure and we must make the necessary investment," said H. David Nahai, former head of the Department of Water and Power. "If we don't act now, we'll simply pay more later."

### Leaks in L.A. water grid



The DWP has a \$1.3-billion plan to replace 435 miles of deteriorating pipe in the next 10 years, but difficult questions remain about how the agency will find the money, how much it will inconvenience commuters and whether the utility can ever catch up with its aging infrastructure.

To reach its goal by 2025, the DWP would need to more than double the number of pipe miles it replaces annually and more than triple the average amount it spends on pipe replacement each year. Water officials said the department has already budgeted \$78 million for water main replacement in the current fiscal year, a significant increase from its annual average.

Future funding for the plan will depend on a combination of higher water rates, bond sales and other department revenue. Getting city leaders to approve higher water rates that the agency says it needs could require political maneuvering as the DWP deals with a standoff between city leaders and two nonprofit trusts over \$40 million the agency gave to the organizations. The department is also rebounding from a billing scandal in late 2013.

"Like the average rate-payer, I will have to be shown the case" for an increase, Mayor Eric Garcetti said, "but I'm interested in not burying my head on this problem."

As officials weigh rate increases, pipes continue to deteriorate and leak, spewing millions of gallons of water onto city streets amid one of California's worst droughts on record. And costs to repair and maintain the aging system mount, totaling more than \$250 million over the last eight fiscal years.

More than a quarter-million pipes make up the DWP's 6,730-mile water main network. Since 2006, work crews have responded to about 13,000 leaks, about four a day across the city.

Some areas experienced more leaks than others — Hollywood Hills West, Mid-City and Hollywood accounted for the largest number of leaks in the city since 2010, agency data show.

### By the numbers

**6,730** — Miles of pipe in the DWP water main network

**435** — Miles of deteriorated water mains that DWP wants to replace, about 6.5% of the network

**\$1.34 billion** — Cost to replace at-risk water mains by 2025

**\$44 million** — Annual average amount DWP has spent on pipe replacement in the last eight fiscal years

**\$135 million** — Annual spending needed to reach 10-year pipe replacement goal

Source: Los Angeles Department of Water and Power

During the last eight fiscal years, the department spent an average of \$44 million annually to replace about 21 miles of pipe per year.

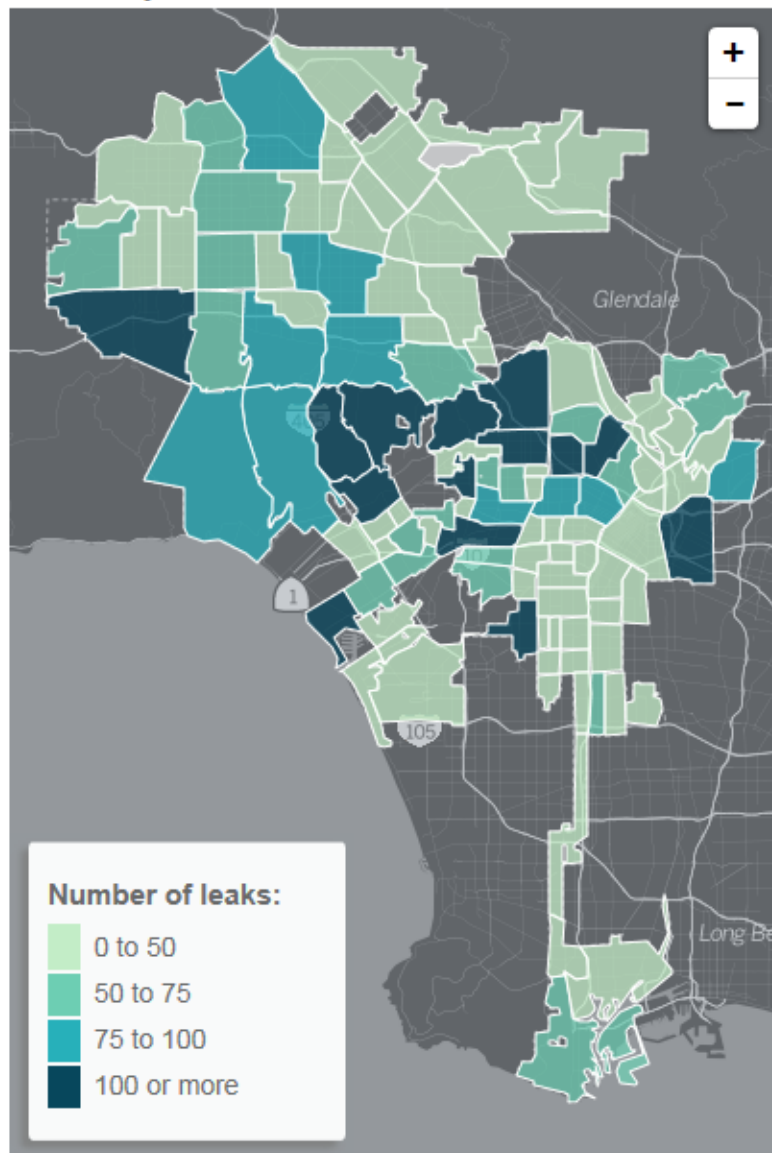
Still, water officials estimate that about 8 billion gallons of water are lost each year to leaky pipes, firefighting, evaporation, theft and other unaccounted losses, though they emphasize that the leak rate has been in decline over the last decade, and is about half the industry average. But the lost water could supply almost 50,000 households for a year.

One small pipe in Woodland Hills leaked more than half a million gallons of water over the course of the year it took the DWP to find and fix it. A DWP spokeswoman said ambient noise made it difficult to find the leak with sound equipment. Workers drilled dozens of holes and dug out sections of the road to locate the leak, leaving uneven patches and a pothole filled with water, residents said.

"This thing was wasting water and we're in this severe drought," said Rick Russell, who visits his mother in the neighborhood. "It's kind of like a slap in the face."

Analyzing pipe infrastructure data, The Times found that pipe age, soil quality, water pressure and leak history are key factors that contribute to leaky water mains. DWP engineers weigh those factors when prioritizing pipes for replacement, assigning a letter grade to each water main based on its likelihood of failure and the potential consequences of a break. About 6% of the system earned grades of D and F, according to The Times' analysis.

### Leaks by area, 2010 to 2014

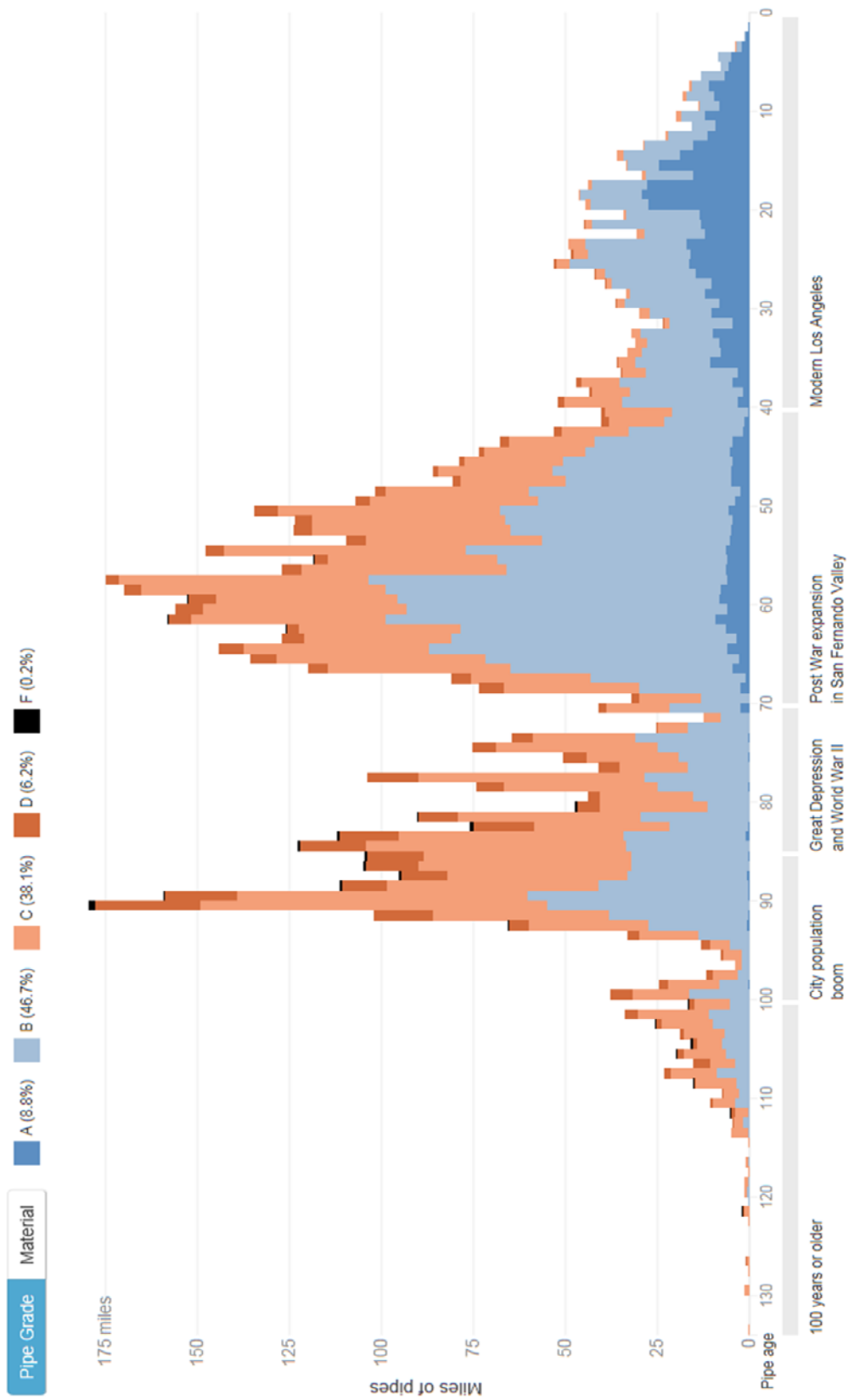


Sources: Los Angeles Department of Water and Power, MapBox and OpenStreetMap.



### L.A.'s aging water mains

The DWP uses letter grades to prioritize water mains for replacement in the city's 6,730-mile network.



The department's 10-year plan is aimed at replacing pipes that have poor grades. Officials believe that they can replace all the pipes now ranked D and F by 2025.

More than 40% of the pipes graded D and F were installed in 1930 or earlier as Los Angeles' population boomed. The expansion of underground water mains in the city mirrored the growth in population above ground. Installation dropped off during the Great Depression and World War II, and surged during the baby boom, when the DWP installed more than 2,500 miles of water mains, department data show. Those postwar pipes will approach the end of their useful life span in about 30 years.

Lucio Soibelman, a civil engineering professor at USC, reviewed the DWP's database of more than 260,000 water mains that The Times obtained through a California Public Records Act request. He found that older pipes in corrosive soils such as the sandy ground in Venice are the most likely to leak.

"These are the pipes that have to be replaced first," Soibelman said.

“

**Because pipes are out of sight and out of mind, no one has really thought about how we're going to pay for this.**

”

— Colin Chung, an asset management consultant

Those aren't the only factors, though. Water pressure and leak history are also important indicators of potential pipe failure, said Julie Spacht, the DWP's water executive

managing engineer. Nearly 30% of the leaky pipes had more than one leak, the data show. Most of the at-risk water mains are being targeted for repair, The Times' review shows.

Outdated engineering methods can also make a pipe more likely to fail. Cast iron mains installed before the 1930s often rusted from the inside out, causing leaks, officials said. DWP workers began lining new pipes in the mid-1930s with concrete. That change corresponds to a steep decline in leaks, The Times found.

Cities such as Portland, Ore., San Francisco and Seattle are also seeing old pipes come of age, according to infrastructure experts who praised the DWP for addressing the issue.

"This is not just an L.A. problem," said Colin Chung, an asset management consultant based in Irvine. "Because pipes are out of sight and out of mind, no one has really thought about how we're going to pay for this."

One of the biggest recent pipe failures occurred last summer on Sunset Boulevard when two trunk lines — arterial pipes with diameters larger than 20 inches — ruptured. One of the trunk lines was more than 90 years old and graded C when it failed. The other was more than 80 and graded D.



Los Angeles DWP crews replace a water main

The broken pipes sent about 20 million gallons of water rushing into Westwood, rendering cars inoperable, warping the hardwood floor in UCLA's Pauley Pavilion and causing what school administrators estimated would be millions of dollars in damage.

Pipe repair costs totaled almost \$900,000, DWP said.

After the blowout, Garcetti asked the DWP to present a plan to address the city's infrastructure. Garcetti said the agency's goal of replacing D- and F-rated pipes by 2025 is achievable using mostly bonds and cash from existing base rates.

He didn't rule out water rate increases, but that requires public meetings and political capital from the DWP Board of Commissioners, City Council and mayor, all of whom must approve an increase.

"We do need to pay for what we need to fix," Garcetti said.

Although the DWP's \$1.3-billion plan would fix many of the current problem pipes, water officials said it doesn't address pipes that will deteriorate in coming years. Even the department conceded it is unlikely that it will ever entirely catch up.

Agency officials must also contend with quality-of-life realities for Los Angeles residents. Replacing several hundred miles of pipe could snarl traffic on roads that must be excavated. And the work will cause headaches for those who have to endure construction outside their homes.

The department's plan could also be hampered by constant regulation changes, water price fluctuations and evolving drought conditions, which some infrastructure experts said can make executing a massive long-term initiative nearly impossible.

But water officials said they need to act now.

"The goals we set are 'stretch'-type goals, but not unreasonable," Spacht said. "We're in a spot where we have an opportunity to take measures to keep us from being in a desperate situation in the future."

Leslie Pope and her husband, Doug Fischer, who live on Nowita Place in Venice, said they would pay higher water rates if it meant improved pipes. Since 2010, crews have repaired four leaks on their street and three on the next block.



Leslie Pope says DWP crews have repaired four leaks on her street in Venice since 2010. (Bob Chamberlin / Los Angeles Times)

The day the pipe split in front of her Craftsman bungalow, Pope and about 60 of her neighbors went without water most of the day, according to DWP records. Cones and a massive white truck blocked off the area as crews pumped out standing water. Workers ripped out and tossed aside chunks of asphalt, then dug a chest-deep hole that measured 12 feet square, the records show.

By the late afternoon, crews had removed and replaced seven feet of rusty pipe, records show.

"I love Venice," Fischer said. "But it's old and falling apart, and these things need to be taken care of."

### **Contact The Reporters**

Follow [@bposton](#) and [@ByMattStevens](#) on Twitter for updates on the city's infrastructure.

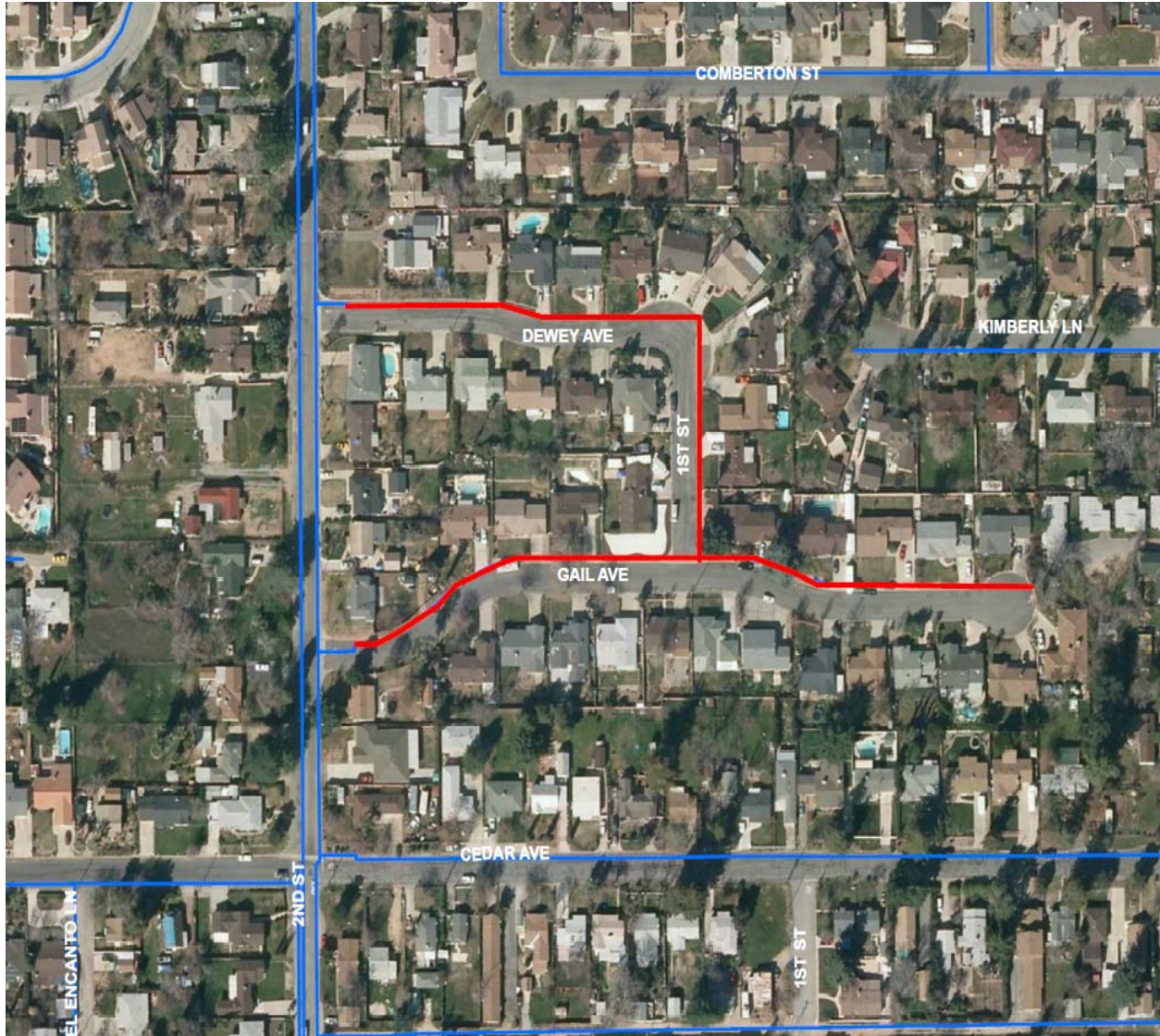
*Times staff writer Peter Jamison and researcher Kent Coloma contributed to this report.*

**Credits:** Interactive Map: Priya Krishnakumar. Interactive Chart and Digital Producer: Honest Charley Bodkin.

Online Source: <http://graphics.latimes.com/la-aging-water-infrastructure/>

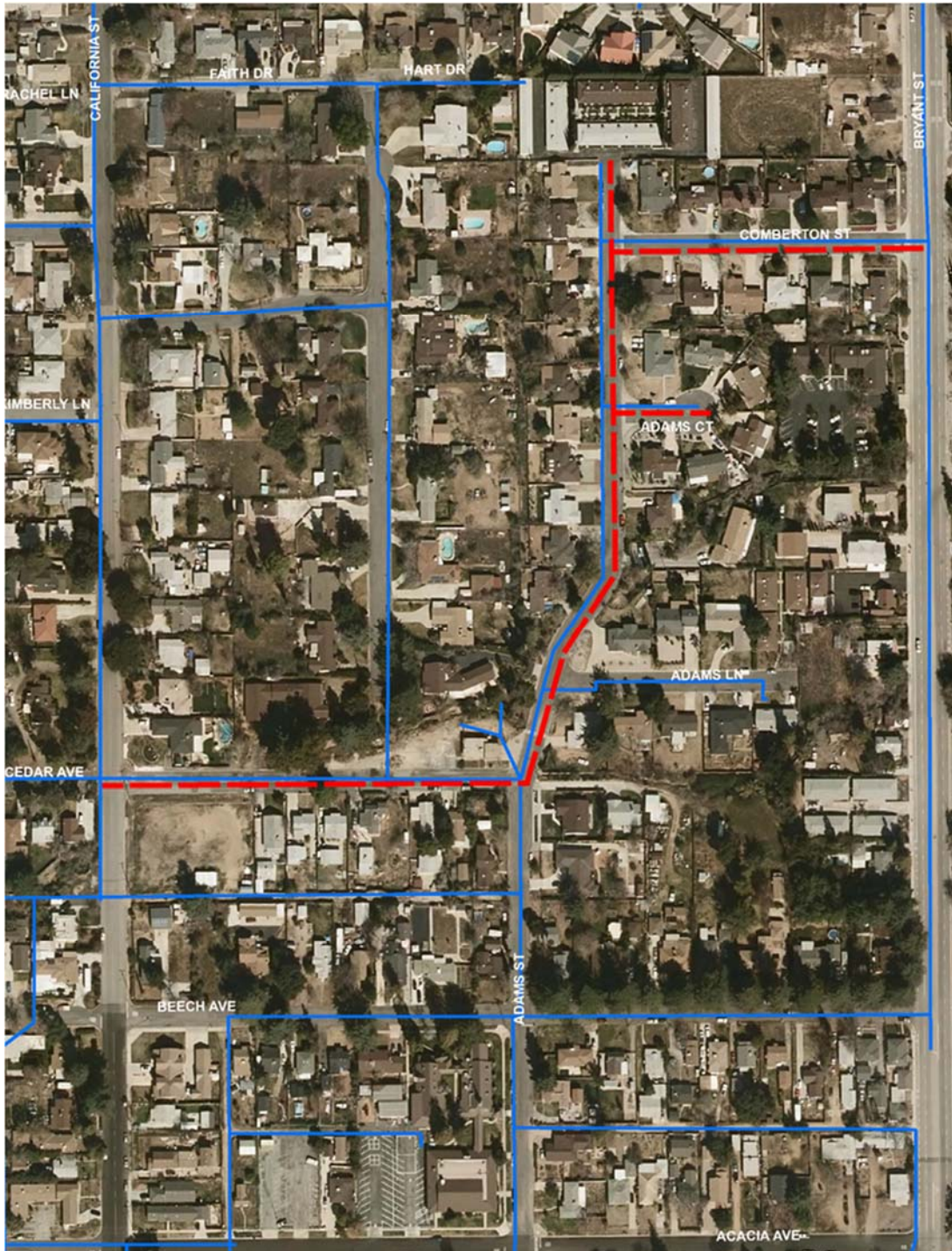


## Yucaipa Valley Water District Pipeline Replacement Program Dewey Avenue, 1<sup>st</sup> Street and Gail Avenue Pipeline Project Completed in 2014



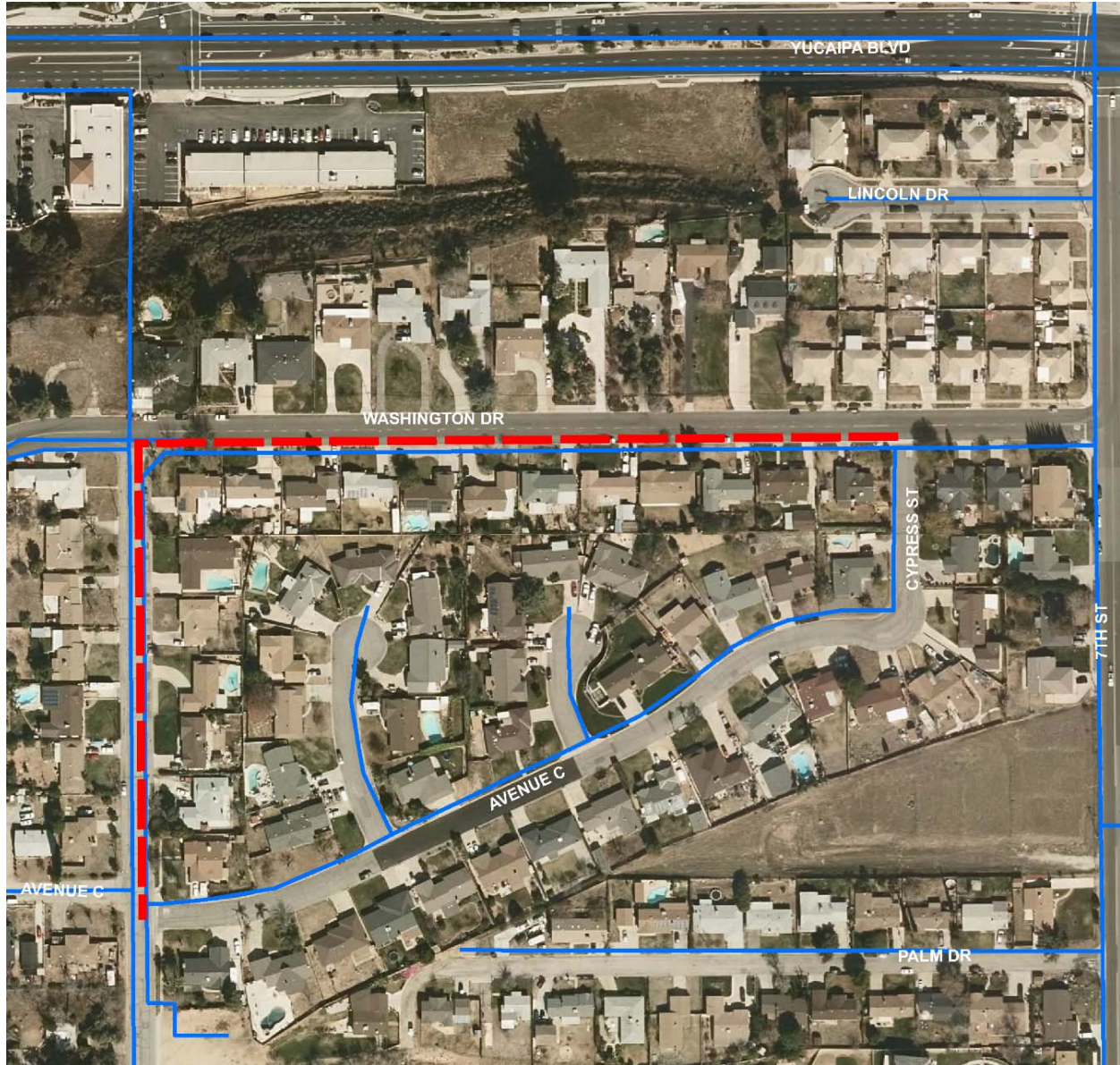


## Yucaipa Valley Water District Pipeline Replacement Program Cedar Avenue, Adams Street, Adams Court and Comberton Street Pipeline Project Scheduled for Construction in 2015





# Yucaipa Valley Water District Pipeline Replacement Program Washington Drive and 8<sup>th</sup> Street Pipeline Project Scheduled for Construction in 2015



# Administrative Items



Yucaipa Valley Water District





**Date:** February 24, 2015

**Subject:** Ratification of Beaumont Basin Watermaster Monitoring and Reporting Expenses

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In January 2001, the San Timoteo Watershed Management Authority was created as a joint powers agency between the Beaumont-Cherry Valley Water District, the City of Beaumont, South Mesa Water Company and the Yucaipa Valley Water District. The parties recognized that they all had common interests in managing the water resources of the San Timoteo Watershed and the Beaumont groundwater basin.

Once formed, the San Timoteo Watershed Management Authority began a multi-phased effort to develop and implement a comprehensive water management program based on the following regional goals:

- To optimize and enhance the local water supplies;
- To protect high quality water resources; and
- To equitably distribute the benefits and costs of developing a regional management strategy.

As a result of the desire to actively manage the local water resources, the parties executed a Stipulated Judgment that provided both the authority and responsibility for the administration of adjudicated water rights within the Beaumont Groundwater Basin. The Honorable Judge Gary Tranbarger of the Superior Court of the State of California for the County of Riverside, signed the Judgment entitled “San Timoteo Watershed Management Authority, vs. City of Banning, et al.,” Case No. RIC 389197, on February 4, 2004.

Pursuant to the Judgment, the Court appointed a five-member Watermaster committee consisting of representatives from the City of Banning, the City of Beaumont, the Beaumont-Cherry Valley Water District, the Yucaipa Valley Water District, and South Mesa Water Company. While the Judgment assigns the management of the Beaumont Basin to the Beaumont Basin Watermaster, the Court retains continuing jurisdiction should there be any need in the future to resolve difficult issues between the parties.

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At the Beaumont Basin Watermaster meeting on February 4, 2015, the Watermaster Committee approved the following expenses:

- The purchase of water level monitoring equipment for installation at twelve sites in the Beaumont Basin - \$16,300. (See page 3 of 34)
- The installation of water level monitoring equipment in the Beaumont Basin and the collection/reporting of water level data - \$18,490. (See page 24 of 34)
- The preparation of the 2014 Consolidated Annual Report, estimation of the basin safe yield, and update of the groundwater model, and associated engineering expenses - \$80,790. (See page 29 of 34)

The Yucaipa Valley Water District will be responsible for 20% of the costs approved by the Beaumont Basin Watermaster, or an amount of \$23,116. This expense is pre-planned as part of the District's operating budget (Account 02-5-06-57096).

For Fiscal Year 2014-15, the line item budget for the Beaumont Basin Watermaster was set at \$60,000 with \$24,005 expended to date. The additional expenses approved by the Watermaster will result in a total line item expenditure of \$47,121 from the \$60,000 budgeted amount, or 78.5%.

The District staff will present this item to the Board of Directors for ratification of the expenses approved by the Beaumont Basin Watermaster at the next regular board meeting.

attachments

## BEAUMONT BASIN WATERMASTER MEMORANDUM NO. 15-03

**Date:** February 4, 2015

**From:** Hannibal Blandon, ALDA

**Subject:** Purchase of Water Level Monitoring Equipment for Installation at Twelve Sites in the Beaumont Basin

**Recommendation:** That the Watermaster members approve the purchase of water level monitoring equipment for a cost not to exceed \$16,000 and authorize an equal assessment to Watermaster members to fund the expense.

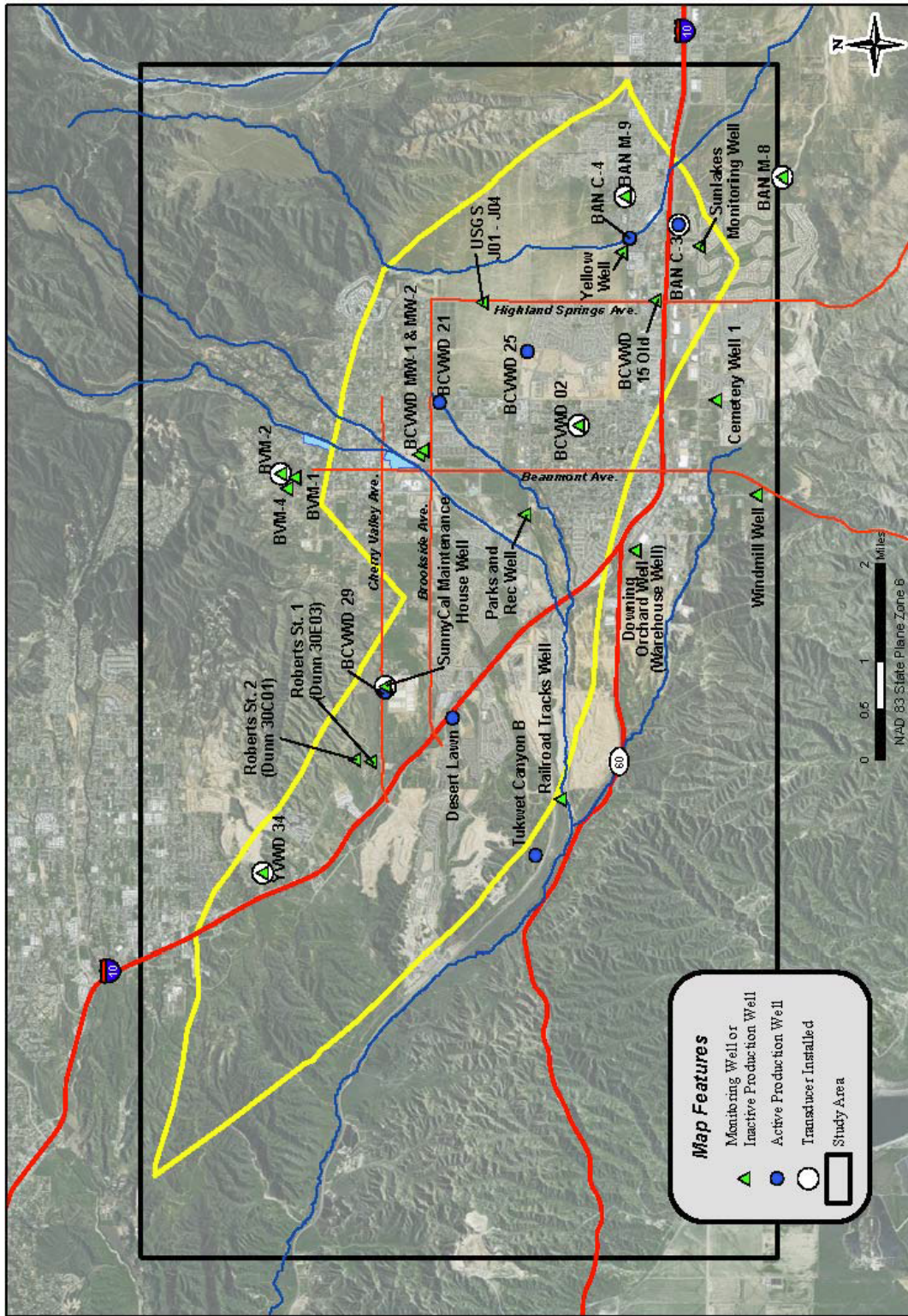
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At the Beaumont Basin Watermaster meeting on December 3, 2014, the Watermaster members authorized ALDA to assess the conditions of the monitoring wells that were used to record water levels at various locations in the groundwater basin during the period between 2007 and 2011. The objectives of the assessment were: a) identify the conditions of existing monitoring equipment, b) evaluate additional wells that could be considered for monitoring, and c) provide a construction cost estimate for consideration by the Board.

Field visits to monitoring sites were conducted in mid-January. Of the 12 probes that were initially installed, only six were found in the field. Water level data was downloaded from three of these probes as the batteries for the remaining units were totally discharged. All probes were manufactured by Solinst, a Canadian company that specializes in monitoring equipment. Additional potential sites were also visited to identify necessary improvements at each site. A total of 23 sites, including existing sites, are being considered for selection of 12 final sites. Attached is a summary of the 23 potential sites including brief descriptions of field conditions and equipment and improvements needed at each site.

Equipment costs were solicited from Solinst for 12 sites. A Solinst quote is attached along with technical documentation on the equipment to be used. The recommended equipment includes: 12 Levelloggers 3001 LT Edge with a 10 year battery, 1 Barologger, 5,600 ft of direct read cable, a direct read communication package, a water level meter, and miscellaneous equipment. Final cost of equipment will be determined upon selection of final sites and it is estimated not to exceed \$15,000.00. An additional \$1,000.00 will need to be budgeted to construct the necessary improvements at some of the final selected sites.

The following Watermaster Memorandum No. 15-04 includes the installation costs for the monitoring wells.










Potential Well Sites for Monitoring Water Levels



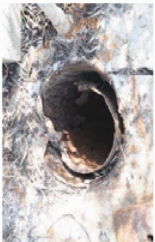

DRAFT

**Alda, Inc.** in association with  
 Thomas Harder & Co.  
 Groundwater Consulting  
 29-Jan-15



Beaumont Basin - Potential Well Sites to Monitor Water Levels			Materials / Repairs
Well Name & Type	Comments	Photo	
<b>Yucaipa VWD No. 34</b> (YVWD - Observation well)	Well has an active transducer. Data was downloaded and transducer left in place. Water level at 220 ft.		1.- New Levellogger Edge 3001 2.- 400 ft of Direct Read Communications Cable
<b>Roberts Street 1 &amp; 2</b> (Private - Abandoned well)	Two wells off Roberts Street. Wells have been logged by SGPWA. 24" Outer casing and 12" inner casing. Needs well head cover and 2" access port.		1.- New Levellogger Edge 3001 2.- 400 ft of Direct Read Communications Cable 3.- Well head cover plate and lock
<b>Tukwet Golf Course Well B</b> (Private - Being Rehabilitated)	Well currently being developed. It is likely that a pump will be installed in the near future to meet irrigation demands. Water levels are relatively shallow - less than 100 ft. Outside Beaumont Basin legal boundary.		1.- New Levellogger Edge 3001 2.- 200 ft of Direct Read Communications Cable 3.- Well head access yet to be determined depending on final configuration
<b>Railroad Tracks Well</b> (Private - Abandoned well)	Well has been logged by SGPWA in the past. Access may be an issue. Shallow water level. Existing well head has a plate, but needs a 2" access port to be drilled. Outside of Beaumont Basin legal boundary.		1.- New Levellogger Edge 3001 2.- 200 ft of Direct Read Communications Cable 3.- Drill a 2" access port on existing well head cover plate and provide lock





Beaumont Basin - Potential Well Sites to Monitor Water Levels			
Well Name & Type	Comments	Photo	Materials / Repairs
<b>Desert Lawn Cemetery</b> (Private Production well)	Well is currently active and supplies lake at cemetery to meet irrigation needs. Pumps a few hours during the summer. Cemetery manager has given verbal approval. Well head has 1" access port that can be used for logger.		<ul style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 400 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications at existing 1" access port</li> </ul>
<b>BCVWD No. 29</b> (BCVWD - Production well)	Well had a transducer in the past, but was removed. A transducer could be installed through existing 2" sounding tube. WEI had difficulties installing transducer in the past. Static water level at about 500 ft. Well operates 18 hours during the summer months.		<ul style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 700 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications at existing 2" sounding tube.</li> </ul>
<b>Near Egg Ranch Well</b> (Private - Observation well)	Well sits directly north of the Egg Ranch wells 1 and 2 and east of BCVWD No. 29. Access through a private residence. 6-inch well has an existing probe with a stainless steel cable. Water level at about 500 ft.		<ul style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 700 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications at well head to install a well plate and lock.</li> </ul>





Beaumont Basin - Potential Well Sites to Monitor Water Levels			Materials / Repairs
Well Name & Type	Comments	Photo	
<b>Icon Warehouse Well</b> (Private - Observation well)	Well sits in warehouse parking lot near the City of Banning DP-7. Well head has been nicely constructed to install observation probe. SGPWA has manually logged well in the past. Water level at about 200 ft.		1.- New Levelogger Edge 3001 2.- 300 ft of Direct Read Communications Cable 3.- Minor modifications at well head to install probe hanging mechanism.
<b>Beaumont Cherry Valley Parks and Recreation Well</b> (Public - Non Production well)	Well sits in Noble Creek Park on Oak Valley Road; logged by SGPWA. Well head has a 2" sounding tube. Water level at approximately 430 ft.		1.- New Levelogger Edge 3001 2.- 600 ft of Direct Read Communications Cable 3.- Minor modifications at well head 2" sounding tube cap.
<b>Bonita Vista Wells 1, 2, or 3.</b> (BCVWD - Observation well)	These 3 wells are located north of basin boundary. Well 2 has a water level probe that was pulled and data downloaded. Probe was put back into well. Water level is about 100 ft. Well head needs a new cover plate, access port, and lock.		1.- New Levelogger Edge 3001 2.- 200 ft of Direct Read Communications Cable 3.- New well head cover, access port and lock are needed.
<b>BCVWD - MW1 or MW2</b> (BCVWD - Observation well)	These 2 wells are located in the middle of the spreading grounds and could easily accommodate the installation of a monitoring probe. Well head cover and lock will be needed. Water level is about 500 ft.		1.- New Levelogger Edge 3001 2.- 700 ft of Direct Read Communications Cable 3.- New well head cover, access port and lock are needed.

**Beaumont Basin - Potential Well Sites to Monitor Water Levels**

Well Name & Type	Comments	Photo	Materials / Repairs
<p><b>Windmill Well</b> (Private - abandoned well)</p>	<p>Near intersection of California Avenue and Beaumont Ave. South of basin boundary. Unknown whether a probe can be lowered with existing pump in place. Pump may need to be pulled. Authorization will be needed from owner prior to commencing work.</p>		<p>1.- New Levelogger Edge 3001 2.- 400 ft of Direct Read Communications Cable 3.- Pull well pump and modify well head plate.</p>
<p><b>BCVWD No. 2</b> (BCVWD - Observation well)</p>	<p>Well had an existing probe hung by stainless steel wire in the sounding tube. Probe was pulled to download data, but battery was not working. Water level at 453 ft</p>		<p>1.- New Levelogger Edge 3001 2.- 600 ft of Direct Read Communications Cable 3.- Minor modifications at sounding tube cap.</p>
<p><b>Cemetery Well No. 1</b> (Private - Observation well)</p>	<p>Well is located south of Beaumont Basin legal boundary. A 1" hole will need to be drilled for the logger to be installed. Water level is at about 70 ft.</p>		<p>1.- New Levelogger Edge 3001 2.- 200 ft of Direct Read Communications Cable 3.- Drill 1" hole in existing plate cover.</p>
<p><b>BCVWD No. 21</b> (BCVWD - Production well)</p>	<p>Well had a transducer in the past, but was removed. A transducer could be installed through existing 2" sounding tube. Static water level at about 530 ft. Well operates 18 hours during the summer months.</p>		<p>1.- New Levelogger Edge 3001 2.- 700 ft of Direct Read Communications Cable 3.- Minor modifications at sounding tube cap.</p>



Well Name & Type	Comments	Photo	Materials / Repairs
<p><b>BCVWD No. 25</b> (BCVWD - Production well)</p>	<p>Well had a transducer in the past, but was removed. WEI had difficulties installing probe in the past through existing 2" sounding tube. Static water level at about 500 ft. Well operates 18 hours during the summer months.</p>		<p>1.- New Levellogger Edge 3001 2.- 700 ft of Direct Read Communications Cable 3.- Minor modifications at sounding tube cap</p>
<p><b>USGS J01 th J04</b> (USGS - Nested observation wells)</p>	<p>Well site has four observation wells at different depths. No monitoring equipment needed. Data can be accessed from USGS semi-annually.</p>		<p>None</p>
<p><b>Yellow Well</b> (Private - Abandoned well)</p>	<p>Well sits in the middle of a field near intersection of Wilson Avenue and Appex Road. Water level is monitored by SGPWA and is currently at about 420 ft. Access to property would need to be authorized by private owner.</p>		<p>1.- New Levellogger Edge 3001 2.- 600 ft of Direct Read Communications Cable 3.- 2" access port on well head plate and lock</p>
<p><b>Old BCVWD No. 15</b> (City of Banning owns well - Observation well)</p>	<p>Well sits in a Chevron gas station parking lot. Water level at approximately 500 ft. A 2" access port needs to be constructed at existing well head plate along with a locking mechanism</p>		<p>1.- New Levellogger Edge 3001 2.- 700 ft of Direct Read Communications Cable 3.- 2" access port on well head plate and lock</p>

Beaumont Basin - Potential Well Sites to Monitor Water Levels			
Well Name & Type	Comments	Photo	Materials / Repairs
<b>Banning C-4</b> (City of Banning - Production well)	Well does not have a logger, but one could be installed through 2" sounding tube. Water level is approximately 450 ft.		<ol style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 600 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications to 2" sounding tube well cap.</li> </ol>
<b>Banning C-3</b> (City of Banning - Production well)	Well has an existing logger, but could not be pulled. Data could not be collected at the time of visit, but may be able to be downloaded if battery is still working. Water level at approximately 450 ft.		<ol style="list-style-type: none"> <li>1.- Not a feasible site as existing logger could not be pulled. Collect data as long as battery has power, then abandon site.</li> </ol>
<b>Sun Lakes Well</b> (Well may be owned by the City of Banning - Observation well)	Well located in driveway of Sun Lakes Private community. Triangular cover with a 2" pipe. Minor work required at access port. Water level may be 400-500 ft deep.		<ol style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 700 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications at access port cap.</li> </ol>
<b>Banning M-8</b> (City of Banning - Production well)	Existing logger was pulled, but data could not be downloaded as battery was not working. Water level at about 350 ft. Minor modifications at 2" sounding tube cap.		<ol style="list-style-type: none"> <li>1.- New Levelogger Edge 3001</li> <li>2.- 500 ft of Direct Read Communications Cable</li> <li>3.- Minor modifications at 2" sounding pipe cap</li> </ol>



Quotation # Q000050372

Customer/Prospect #: 253

Date Printed: Jan-26-2015  
Quote Date: Jan-26-2015

Bill To:  
ALDA Inc.  
CA  
UNITED STATES

Ship To:  
ALDA Inc.  
CA  
UNITED STATES

Solinst Canada Ltd.  
35 Todd Road  
Georgetown ON L7G 4R8  
Canada  
Fax: 905-873-1992/800-516-9081  
Phone: 905-873-2255/800-661-2023

Attention: Hannibal Brandon  
909 587 9916

Attention:

email: instruments@solinst.com  
web: www.solinst.com

Quote Validity	Ship Via	Shipping Terms	Duty & Brokerage	HST	GST	State Tax			Terms
33 days	UPSG	DDP	Included	TAX0%	GST EX	Customer remit			Net 30 Q&C
Qty	Part#	Description	UOM	List Price	Disc 1	Disc 2	Net Price	Ext Price	
12.00	110183	3001 LT Levlogger Edge, M00rP100	EA	597.00	0.00	0.00	597.00	7,164.00	
1.00	110179	3001 LT Levlogger Edge, M1 SrP5	EA	310.00	0.00	0.00	310.00	310.00	
2.00	104768	3001 Direct Read Cable Assy (200ft) for the levlogger	EA	215.00	0.00	0.00	215.00	430.00	
10.00	107083	3001 Direct Read Cable Connector Assembly (to 1300ft)	EA	75.00	0.00	0.00	75.00	750.00	
5,600.00	110891	3001 Direct Read Cable (to 1500ft - 5ft)	FT	0.70	0.00	0.00	0.70	3,920.00	
Custom Direct Read (4 X 400 ft, 4 X 600 ft, 2 X 800 ft)									
Signed Order Acceptance required									
1.00	102405	3001 SS Cable Assembly & Hooks (300ft) for the Levlogger	EA	135.00	0.00	0.00	135.00	135.00	
1.00	102403	3001 SS Cable Assembly & Hooks (200ft) for the Levlogger	EA	60.00	0.00	0.00	60.00	60.00	
6.00	110099	3001 Weld Cap Assembly (3 ) for the Levlogger	EA	24.00	0.00	0.00	24.00	144.00	
1.00	107379	3001 Direct Read Comm. Package (USB) for the Levlogger	EA	390.00	0.00	0.00	390.00	390.00	
1.00	108354	3001 Levlogger Field (RS232/USB) c/w Cables	EA	614.00	0.00	0.00	614.00	614.00	
1.00	109249	102 Water Level Meter, P/N:11000ft (base marked)	EA	1,154.00	0.00	0.00	1,154.00	1,154.00	
0.00	110241	3001 LT Levlogger Junior Edge, M5rP1.5 (1 year Warranty)	EA	782.00	0.00	0.00	782.00	0.00	
0.00	110242	3001 LT Levlogger Junior Edge, M10rP30 (1 year Warranty)	EA	782.00	0.00	0.00	782.00	0.00	

RFQ: Beaumont Basin Water Level Monitoring

Sale Amount: 15,071.00  
 Order Disc( 0.0000%): 0.00  
 Surcharge: N/A  
 Misc Charges: 0.00  
 GST: 0.00  
 HST: 0.00  
 Total Amount: 15,071.00  
 US Dollar



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Bill To:  
ALDA Inc.  
CA  
UNITED STATES

Ship To:  
ALDA Inc.  
CA  
UNITED STATES

Solinst Canada Ltd.  
35 Todd Road  
Georgetown ON L7G 4R8  
Canada  
Fax: 905-873-1992/800-516-9081  
Phone: 905-873-2255/800-661-2023

Attention: Hannibal Bhandon  
909 587 9916

Attention:

email: instruments@solinst.com  
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# Solinst

## Levellogger Series

Model 3001 Data Sheet

### Levellogger Edge

Model 3001

The Levellogger Edge records highly accurate groundwater and surface water level and temperature measurements. It combines a pressure sensor, temperature detector, 10-year lithium battery, and datalogger, sealed within a 7/8" x 6.25" (22 mm x 159 mm) stainless steel housing with Titanium based PVD coating.

The Levellogger Edge measures absolute pressure using a Hastelloy pressure sensor, offering excellent durability and reliability. Combined with the Titanium based PVD coating, both elements have high corrosion resistance in harsh environments, allowing stable readings in extreme pressure and temperature conditions. The Hastelloy sensor can withstand 2 times over-pressure without permanent damage.

The Levellogger Edge features a wide temperature compensated pressure range (0 to 50°C, -10 to 50°C for Barologger Edge), and rapid thermal response time. The Levellogger Edge has high resolution and an accuracy of 0.05% FS. The convenient Barologger Edge provides the easiest and most accurate method of barometric compensation.

### Applications

- Aquifer characterization: pumping tests, slug tests, etc.
- Watershed, drainage basin and recharge monitoring
- Stream gauging, lake and reservoir management
- Harbour and tidal fluctuation measurement
- Wetlands and stormwater run-off monitoring
- Water supply and tank level measurement
- Mine water and landfill leachate management
- Long-term water level monitoring in wells, surface water bodies and seawater environments



Fast communication and downloading speeds with a high speed Optical Reader



### Features

- 0.05% FS Accuracy
- Corrosion resistant Titanium based PVD coating
- Robust Hastelloy pressure sensor
- Accurate temperature compensation
- Memory for up to 120,000 readings
- Basic and advanced data compensation options

The Levellogger Edge has a battery life of 10 years based on a 1-minute sampling rate. It has FRAM memory for 40,000 sets of data points - or up to 120,000 using the compressed linear sampling option.

The Levellogger Edge uses a Faraday cage design, which protects against power surges or electrical spikes caused by lightning. Its durable maintenance-free design, high accuracy and stability, make the Levellogger Edge the most reliable instrument for long-term, continuous water level recording.

### Flexible Communication

Levellogger PC Software is streamlined, making it easy to program dataloggers, and to view and compensate data, in the office or in the field. The software has useful programming options, including compressed and repeat sampling, and future start/stop. Data compensation has been simplified, and allows multiple data files to be barometrically compensated at once.

The extremely intuitive Solinst Levellogger App, and Levellogger App Interface on your in-field Levelloggers, creates a wireless system connecting your Levelloggers to you smart device. Also an option, the Levelloader Gold is a field-ready data transfer unit designed specifically for the Levellogger Series.

For remote monitoring, options include STS Telemetry Systems and RRL Remote Radio Link. In addition, Levellogger Edge Series dataloggers are SDI-12 compatible.

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High Quality Groundwater and Surface Water Monitoring Instrumentation

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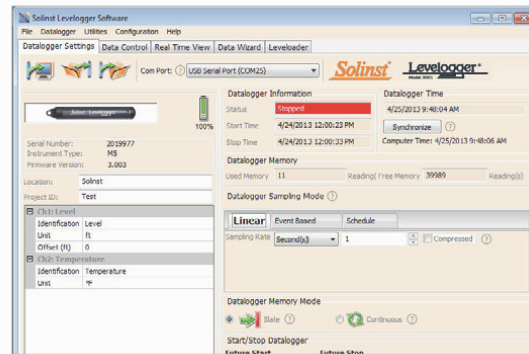
## Levelogger Series

### Levelogger Setup

Programming Leveloggers is extremely intuitive. Simply connect to a PC using an Optical Reader or PC Interface Cable. All in one screen fill in your project information and sampling regime. Templates of settings can be saved for easy re-use.

The Levelogger time may be synchronized to the computer clock, or Leveloader clock. There are options for immediate start or future start and stop times. The percentage battery life remaining and the amount of free memory are indicated on the settings screen.

Leveloggers can also be programmed with a sampling regime and start/stop times using the Solinst Levelogger App on your smart device.



Levelogger Edge Settings Software Windows

### Convenient Sampling Options

Leveloggers can be programmed with linear, event-based, or a user-selectable sampling schedule. Linear sampling can be set from 1/8 second to 99 hours. The Levelogger Edge can be programmed with compressed linear sampling, which increases memory from 40,000 to up to 120,000 readings.

Event-based sampling can be set to record when the level changes by a selected threshold. Readings are checked at the selected time interval, but only recorded in memory if the condition has been met. A default reading is taken every 24 hours if no "event" occurs.

The Schedule option allows up to 30 schedule items, each with its own sampling rate and duration. For convenience, there is an option to automatically repeat the schedule.

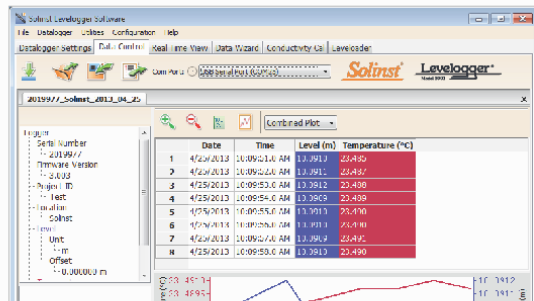
### Data Download, Viewing and Export

Data is downloaded to a PC with the click of a screen icon or with the push of a button on the Leveloader. There are multiple options for downloading data, including 'Append Data' and 'All Data'. The software also allows immediate viewing of the data in graph or table format using the 'Real Time View' tab.

The level data is automatically compensated for temperature, and the temperature data is also downloaded. Barometric compensation of Levelogger data is performed using the Data Wizard, which can also be used to input manual data adjustments, elevation, offsets, density, and adjust for Barometric efficiency.

The software allows easy export of the data into a spreadsheet or database for further processing.

The Solinst Levelogger App also allows you to view and save real-time, or logged data right on your smart device.



### Helpful Utilities

The 'Self-Test Diagnostic Utility' can be used in case of an unexpected problem. It checks the functioning of the program, calibration, backup and logging memories, the pressure transducer, temperature sensor and battery voltage, as well as enabling a complete Memory Dump, if required.

A firmware upgrade will be available from time to time, to allow upgrading of the Levelogger Edge, as new features are added.

### Solinst Levelogger App & Levelogger App Interface

The Levelogger App Interface uses Bluetooth® wireless technology to connect your Levelogger to your Apple® smart device. With the Solinst Levelogger App, you can download data, view real-time data, and program your Leveloggers. Data can be e-mailed from your smart device directly to your office (see Model 3001 Solinst Levelogger App & Interface data sheet).

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High Quality Groundwater and Surface Water Monitoring Instrumentation



## Levellogger Series

### Standard Cable Deployment

Levelloggers may be suspended on a stainless steel wireline or Kevlar® cord. This is a very inexpensive method of deployment, and if in a well, allows the Levellogger to be easily locked out of sight and inaccessible. Solinst offers stainless steel wireline assemblies and Kevlar cord assemblies in a variety of lengths.

### Solinst 3001 Well Cap Assembly

The 2" Locking Well Caps are designed for both standard and Direct Read Cable deployment options.

The well cap has a convenient eyelet for suspending Levelloggers using wireline or Kevlar cord. The Well Cap insert has two openings to accommodate Direct Read Cables for both a Levellogger and Barologger. Adaptors are available to fit 4" wells.

The cap is vented to equalize atmospheric pressure in the well. It slips over the casing, and the cap can be secured using a lock with a 3/8" (9.5 mm) shackle diameter.



Levellogger 2" Locking Well Cap Installations  
(see Well Caps data sheet for more details)

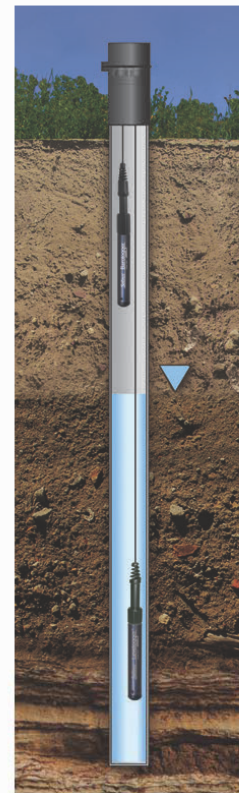
### Direct Read Cables

When it is desired to get real-time data and communicate with Levelloggers without removal from the water, they can be deployed using Direct Read Cables. This allows viewing of the data, downloading and/or programming in the field using a portable computer or Leveloader.

Levelloggers can also be connected to an SDI-12 datalogger using the Solinst SDI-12 Interface Cable attached to a Direct Read Cable.

### Cable Specifications

Direct Read Cables are available for attachment to any Levellogger in lengths up to 1500 ft. The 1/8" dia. (3.175 mm) coaxial cable has an outer polyethylene (MDPE) jacket for strength and durability. The stranded stainless steel conductor gives non-stretch accuracy.



Barologger and Levellogger installed in Well Using Direct Read Cables

### Accurate Barometric Compensation

The Levellogger Edge measures absolute pressure (water pressure + atmospheric pressure) expressed in feet, meters, centimeters, psi, kPa, or bar.

The most accurate method of obtaining changes in water level is to compensate for atmospheric pressure fluctuations using a Barologger Edge, avoiding time lag in the compensation.

The Barologger is set above high water level in one location on site. One Barologger can be used to compensate all Levelloggers in a 20 mile (30 km) radius and/or with every 1000 ft. (300 m) change in elevation.

The Levellogger Software Data Compensation Wizard automatically produces compensated data files using the synchronized data files from the Barologger and Levelloggers on site.

The Barologger Edge uses pressure algorithms based on air rather than water pressure, giving superior accuracy.

The recorded barometric information can also be very useful to help determine barometric lag and/or barometric efficiency of the monitored aquifer.

The Barologger Edge records atmospheric pressure in psi, kPa, or mbar. When compensating submerged Levellogger Edge, Gold or Junior data, Levellogger Software Version 4 can recognize the type of Levellogger and compensate using the same units found in the submerged data file (Levellogger Gold and Junior measure in feet, meters, or centimeters). This makes the Barologger Edge backwards compatible.

Synchronize & Streamline Your Barometric Compensation Efforts, Across Your Entire Site



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High Quality Groundwater and Surface Water Monitoring Instrumentation





## Levellogger Series

### Levellogger Edge Specifications

<b>Level Sensor:</b>	Piezoresistive Silicon with Hastelloy Sensor
Accuracy:	± 0.05% FS (Barologger Edge: ± 0.05 kPa)
Stability of Readings:	Superior, low noise
Units of Measure:	m, cm, ft., psi, kPa, bar, °C, °F (Barologger Edge: psi, kPa, mbar, °C, °F)
Normalization:	Automatic Temperature Compensation
Temp. Comp. Range:	0° to 50°C (Barologger Edge: -10 to +50°C)
<b>Temperature Sensor:</b>	Platinum Resistance Temperature Detector (RTD)
Temp. Sensor Accuracy:	± 0.05°C
Temp. Sensor Resolution:	0.003°C
Battery Life:	10 Years - based on 1 reading/minute
Clock Accuracy:	± 1 minute/year (-20°C to 80°C)
Operating Temperature:	-20°C to 80°C
Maximum # Readings:	40,000 readings FRAM memory, or up to 120,000 using linear data compression
Memory:	Slate and Continuous
Communication:	Optical Infrared Interface. Conversion to RS-232, USB, SDI-12. Serial at 19,200 bps, 38,400 bps with USB
Size:	7/8" x 6.25" (22 mm x 159 mm)
Weight:	4.6 oz. (129 grams)
Corrosion Resistance:	Titanium based PVD coating
Other Wetted Materials:	Delrin®, Viton®, 316L stainless steel, Hastelloy, Titanium based PVD coating
Sampling Modes:	Linear, Event & User-Selectable with Repeat Mode, Future Start, Future Stop, Real-Time View
Measurement Rates:	1/8 sec to 99 hrs
Barometric Compensation:	Software Wizard and one Barologger in local area (approx. 20 miles/30 km radius)

Models	Full Scale (FS)	Accuracy
Barologger	Air only	± 0.05 kPa
F6, M2	6.6 ft., 2 m	± 0.003 ft., 0.1 cm
F15, M5	16.4 ft., 5 m	± 0.010 ft., 0.3 cm
F30, M10	32.8 ft., 10 m	± 0.016 ft., 0.5 cm
F65, M20	65.6 ft., 20 m	± 0.032 ft., 1 cm
F100, M30	98.4 ft., 30 m	± 0.064 ft., 1.5 cm
F300, M100	328.1 ft., 100 m	± 0.164 ft., 5 cm
F600, M200	656.2 ft., 200 m	± 0.328 ft., 10 cm

**Levellogger Junior Edge:** See Levellogger Junior Edge Data Sheet.  
**Conductivity:** See Model 3001 LTC Levellogger Junior Data Sheet

### Leveloader Gold

The Leveloader Gold is a data transfer unit designed for use with all versions of the Solinst Levellogger, Barologger and Rainlogger. It is used to download and store multiple data files.

The 8 Mb FLASH memory stores up to 1,390,000 LT readings, 930,000 LTC readings, or 34 full Levellogger downloads. It can also be used to display data in real-time, and has optional password protection.

Simply use the connector cables for attachment to a Levellogger, or to a direct read cable, to allow downloading or reprogramming of the Levellogger settings in the field. It comes with cables for USB and RS-232 connection to a PC for data transfer (see Model 3001 Leveloader data sheet).



### STS Telemetry

The STS Telemetry System provides an economical and efficient method to send Levellogger data from the field to your desktop. Built for Levelloggers, the system combines high quality dataloggers, intuitive software, and wireless communication, to create a remote monitoring solution.

Communication options give the flexibility to suit any project. Systems are suitable for both small to large networks. STS Systems are designed to save costs by enabling the self-management of data. Alarm notification, remote firmware upgrades and diagnostic reporting make system maintenance simple (see Model 9100/9200 data sheet).

### RRL Telemetry

The inexpensive RRL Remote Radio Link is ideal for short range applications up to 20 miles or 30 km; distances can be increased by using some radios as relay stations. Ideal for creating closed-loop monitoring networks using Levelloggers (see Model 9100/9200 data sheet).

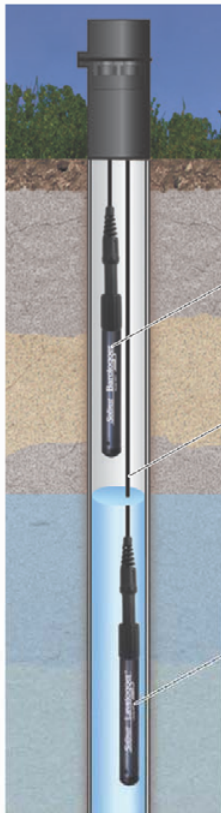
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## Levelogger Deployment



**Barologger Suspended in Air**  
Typically 1 Barologger per 30 km (20 mile) radius and/or every 300 m (1000 ft.) of elevation change from well to well

**Direct Read Cable**  
Lengths up to 1500 ft. (450 m)

**Submerged Levelogger**

### Direct Read Cable Deployment

Use this method when you want direct communication via a field laptop, Leveloader Gold, or the Solinst Levelogger App while your Levelogger is downhole. Pre-program Leveloggers (Edge, Barologger, LTC or Junior) in the office using an Optical Reader. In the field use a laptop and PC Interface Cable, a Leveloader Gold, or the Solinst Levelogger App on your smart device and Levelogger App Interface, to program, view or download data.



The Direct Read Communication Package from Solinst includes an Optical Reader, PC Interface Cable and Levelogger Software & User Guide CD.



The Solinst 2" Lockable Well Cap has openings for two Direct Read Cables and an opening for other monitoring equipment, such as a Water Level Meter.



Levelogger App Interface connected to a Direct Read Cable provides a wireless connection between the Levelogger and the Solinst Levelogger App on your smart device.



Leveloader connected to a Direct Read Cable using a DRC Interface Cable.



## Levelogger Deployment



### Wireline/Rope Deployment

Use this method when you wish to minimize up front costs, and pre-program Leveloggers (Edge, Barologger, LTC or Junior) in the office. Lower into the well, suspended on wireline or Kevlar cord from a 2" or 4" Well Cap. To retrieve data or re-program, remove the Levelogger from the well and use an Optical Reader attached to a portable or office computer.

### Standard Communication

Use a USB Optical Reader connected to your laptop or desktop PC, to program as many Leveloggers as required. **The Standard Communication Package** from Solinst includes an Optical Reader and Levelogger Software & User Guide CD.

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# SOLINST TECHNICAL BULLETIN

## Ensuring Proper Use and Maintenance of Leveloggers

### Knowing What to Expect

As with any groundwater or surface water monitoring project, you should determine the best instruments to use, and how to maintain those instruments, based on the monitoring environment specific to your application.

When using Leveloggers, this means selecting the appropriate pressure range, ensuring the monitoring temperatures are within the instruments specifications, making sure the wetted materials are compatible with your site's chemistry, and determining the proper deployment method.

A maintenance schedule and precautionary measures should be determined early on, especially if you suspect your monitoring environment to be harsh on the instrument sensors.

### Selecting the Proper Levelogger

Leveloggers are available in a variety of pressure ranges, from F6/M2 to F600/M200, which can withstand submergence from 6 feet (2 meters) to 600 feet (200 meters), respectively. The Levelogger Edge can withstand 2 times overpressure, but outside the stated pressure range, accuracy is not guaranteed. Using outside the overpressure range can damage the sensor.

A temperature detector is used to accurately compensate for temperature changes, within the range of 0 to +50°C for the Levelogger Edge. The Levelogger will record temperature in its thermal range of -20 to +80°C, but outside the compensation range, readings will be less accurate. Using beyond the thermal range can damage the unit.

Levelogger data sheets provide a list of wetted materials to help check for chemical compatibility with the monitored water. Before deploying your Levelogger, you can also check the chemical compatibility of your instrument's wetted materials, by obtaining a sample of the water you will be monitoring in, and measuring the chemicals of concern for your site.



Solinst has various documents to help determine the best deployment method for your Levelogger, including the Levelogger User Guide and Technical Bulletins found on the Solinst website.

Placing your Levelogger in that water for a closely monitored test period, although actual expected pressure and temperature conditions may not be emulated, will give you a good idea of how your Levelogger will react and perform in the chemical environment. This type of test can be done with any instrument, including pumps, water level meters, etc.

### Scheduling Maintenance

If you are not sure how your Leveloggers are going to perform in, and/or react to your monitoring environment, it is recommended to schedule staged site inspections to physically check your units and their function periodically during the monitoring term.

**If you do not check your site regularly, you will not know how the monitoring environment is affecting your instruments.**

The photos below show different types of biofouling that can occur. Biofouling, sediment accumulation, or corrosion on a pressure sensor or conductivity cell can compromise the accuracy of their measurements.



Photo Credit: Tom Shinsky, The Louis Berger Group

It is also recommended to take manual water level measurements each time you inspect your Levelogger. These manual water level measurements can be used to compare to Levelogger readings to ensure the Levelogger is performing as it should. If your readings appear to be inaccurate, it may be a sign that your Levelogger needs to be cleaned. All sensors experience some long-term drift from their original calibrated state, but not routinely performing maintenance checks and cleaning, can lead to accelerated sensor degradation.

Determining how frequent your site visits should be, is again based on your monitoring environment - specifically water quality. In good quality freshwater, such as a municipal production well, inspecting a Levelogger and taking manual measurements may just be done seasonally, actually cleaning the Levelogger may only be needed annually. While, in harsher environments, such as at contaminated sites, inspections and cleaning should be more frequent. **Your ongoing maintenance schedule will be based on your own experience and knowledge of the monitoring site, and based on the results of your staged site inspections.**

*Continued overleaf...*

High Quality Groundwater and Surface Water Monitoring Instrumentation





## Ensuring Proper Use and Maintenance of Leveloggers

### Preventative Maintenance

If you are familiar with the conditions of your monitoring site, and know you are going to require extra corrosion-resistance, biofouling protection, or protection from ice accumulation, there are precautionary steps that can be taken.

Although the Levelogger Edge has a corrosion-resistant titanium based PVD coating and a Hastelloy pressure sensor diaphragm, in extremely corrosive environments, you can further protect the Levelogger using a balloon filled with deionized water or tap water. As pressure changes, the fluid encasing the loggers will transmit the pressure differential to the logger's pressure transducer, without exposing it to corrosive conditions.

Solinst offers a Biofoul Screen that can be used to protect the Levelogger against biofouling. The Delrin copper-coiled screen naturally reduces biofouling. The Biofoul Screen simply slips onto the sensor end of the Levelogger where it is held in place with its compression fitting. It allows water to freely enter the pressure transducer inlets, and/or conductivity cell.



*The Levelogger on the right was protected using a Biofoul Screen, while the Levelogger on the left was deployed unprotected and shows signs of biofouling on the sensor end.*

To avoid icing, the easiest method is to lower the Levelogger to a point in the water column below the frost line or ice formation depth. In shallow streams, wetlands or ponds where icing/freezing may penetrate to the bottom, install the Levelogger in a vented stilling well imbedded into the bottom of the water body beyond the frost line. Alternatively, place the Levelogger inside, rubber balloons filled with a non-toxic, non-corrosive anti-freeze solution or saltwater solution. The antifreeze solution will protect the Levelogger from ice expansion; yet transmit any pressure and temperature fluctuations.

Printed in Canada: October 17, 2013

### Maintaining Leveloggers

Generally, cleaning your Levelogger consists of rinsing and using a mild, non-residual, non-abrasive, household cleaner with a very soft plastic bristled brush. Do not insert any object through the pressure transducer inlets at the sensor end of the Levelogger.

Some cases may require specific maintenance:

#### Hard Water

Hard water can result in the precipitation of calcium and magnesium deposits on the Levelogger body and pressure transducer. These deposits can be dissolved using a diluted solution ( $\leq 10\%$ ) of acetic or phosphoric acid. Commercially available products designed for household use can also be used.

#### Suspended Solids

High suspended solid loads may block the pressure transducer inlets or clog the internal pressure cell. To minimize this, Leveloggers should be placed in areas with higher flow. Simply rinse the Levelogger inlets to remove any particles.

#### Bacteriological or Chemical Fouling

Sessile bacteria, other microorganisms, barnacles, mussels and algae can buildup on the Levelogger body, as well as the sensors. Chemical deposits can also be a result of electrical charge differential between the Levelogger and the monitored liquid. Both forms of fouling can be removed by soaking in a diluted ( $\leq 10\%$ ) solution of sulfuric acid. Hard-to-remove deposits may require several hours of soaking.

#### LTC Conductivity Pins

LTC conductivity pins are platinum-coated; therefore, they should not be roughly cleaned or touched with any metal. They can be cleaned with a soft bristle brush, Q-Tip, or cloth. Almost any diluted ( $\leq 10\%$ ) acid solution can be used. Soaking time should be monitored and kept to a minimum.

#### O-Ring Damage

There are o-rings on Levelogger optical ends and in the Levelogger caps, which are designed to prevent leaks. Depending on your application, you may be unscrewing the caps and/or direct read cables from the Levelogger optical end more frequently. This could result in damage to the o-rings. These o-rings should be inspected regularly and replaced as required (contact Solinst for replacements).

#### Storage Tips

Before storing Leveloggers for any extended period, they should be stopped from recording (using Levelogger Software), cleaned as described above, and stored with the cap on to protect the optical eyes and to prevent unnecessary battery drainage.

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# SOLINST TECHNICAL BULLETIN

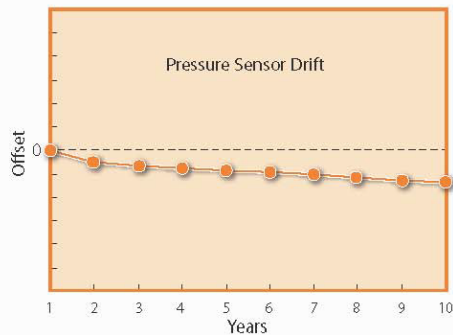
## Understanding Pressure Sensor Drift

### Pressure Sensor Drift

All pressure transducers - no matter what they are made of, how expensive they are, or how accurate - are susceptible to sensor drift over time. Pressure sensor drift is a gradual degradation of the sensor and other components that can make readings offset from the original calibrated state.

Based on their intended application, sensors are engineered from various materials. When exposed to certain conditions, the sensors will respond differently depending on the physical properties of the materials chosen.

Every sensor will undergo some expansion and contraction when subject to pressure and temperature cycles. Pressure change frequency and amplitude, temperature extremes, material responses and environmental changes are all factors contributing to drift. The magnitude a sensor will drift varies with actual usage and the conditions it is exposed to.



Example of Pressure Sensor Drift from the Calibrated Zero Point Over Time

### Pressure Sensor Calibration

It is important to note that manufacturers test and calibrate their sensors in closed environments to achieve desired specifications and a zero point. Some manufacturers provide a value for the expected drift or long term stability, but these numbers are still based on use in very stable environments, making them somewhat irrelevant in normal use.



### Solinst Leveloggers

Solinst Leveloggers are water level data loggers that use an absolute pressure sensor to detect the depth (or pressure) of water above the logger. For the Levelogger Edge, Solinst chose to use a Hastelloy pressure sensor because of durability, long term stability, accuracy, and corrosion resistance.

Hastelloy pressure sensors are more tolerant when it comes to being over-pressurized. Other sensors, such as ceramic sensors, tend to be more brittle and can shatter when they experience over-pressurization, ice accumulation, or water hammer effects.

### Correcting for Drift

Factory re-calibration can be attempted to correct for drift, but may not be required. Regular "field zero readings" will serve to eliminate the effects of drift on pressure sensor readings.

The best recommendation is to compare barometrically compensated Levelogger data with a manually measured water level value (depth to water using a Model 101 or 102 Water Level Meter, or a staff gauge depending on your application).

By routinely taking manual water level measurements, and comparing these readings to those recorded by the Levelogger at the same time, an offset value can be determined. This offset value can then be used to correct future Levelogger readings.

If using a depth to water measurement for comparison, the deployment depth of the Levelogger, minus the manual depth to water measurement, should equal the compensated Levelogger reading. If not, the difference between the two readings is the offset value, or calculated sensor drift.

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## Leveloader Gold

For Use with Model 3001

### Leveloader Gold

Model 3001

The Leveloader™ Gold is a field-ready, backwards compatible data transfer unit designed for use with all versions of the Solinst Levelogger®, Rainlogger and Barologger. It is used to download, store and transfer multiple data files, using 8 Mb of non-volatile FLASH memory.

The Leveloader Gold has a rugged, water-resistant, ergonomic exterior and stores up to 1,390,000 LT readings, 930,000 LTC readings or 34 full Levelogger downloads. Stored data can be scrolled through before transfer to a PC. The Leveloader Gold can also be used to display data in real-time, which is ideally suited for conducting conventional pumping tests.



### Field Friendly

Field-located Leveloggers can be reprogrammed on site with a 'future start' or 'start now' option. For convenience, up to 10 personalized settings files can be pre-programmed in the Levelogger PC Software at the office and transferred to the Leveloader Gold for use in the field. These settings files each store a customized sampling regime, instrument location, and identification. The Leveloader Gold can be synchronized to your PC clock. In turn you can synchronize Levelogger times to the Leveloader time, to maintain consistency between field-deployed Leveloggers.

The Leveloader Gold also displays useful information on battery life, memory levels and firmware versions for both the Leveloader itself and the attached Levelogger. As with the Levelogger, the Leveloader Gold has upgradeable firmware, which allows future improvements to be added to older units. Users can download and install any future improvement to the onboard software, free of charge. For security, there is password protection built into the Leveloader, which can prevent unauthorized changes to the Levelogger settings, logging sessions or stored data.

### Transferring Data

The Leveloader Gold eliminates the need for a laptop or PDA. The Leveloader uses proprietary software and hardware, which is dedicated to the Levelogger Series of dataloggers. In the field, it can perform almost all the functions the user can do with a desktop computer and the Levelogger Software.

The Leveloader Gold comes with sturdy cables for USB and RS232 connection to a PC, a cable for direct connection to a Levelogger and a cable for connection to a Direct Read Cable of a Levelogger deployed in the water. On return to the PC, the Levelogger Software allows downloading of individual files or all files at the same time.

### Advantages

- Real-Time View option
- Robust, water-resistant, ergonomic exterior
- 8 Mb non-volatile FLASH memory
- Holds over 1.3 million readings
- Stores 10 personalized logging setups

### Features

- Dedicated to Leveloggers
- Backwards compatible
- Solinst designed hardware and software
- Free upgradeable firmware
- High accuracy real-time clock
- Easy-read screen



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May 23, 2014

**For further information contact: Solinst Canada Ltd.**  
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 35 Todd Road, Georgetown, Ontario Canada L7G 4R8  
 Web Site: www.solinst.com E-mail: instruments@solinst.com





*High Quality Groundwater and Surface Water Monitoring Instrumentation*

**Solinst Canada Ltd.**

35 Todd Road  
Georgetown, ON  
Canada L7G 4R8

Tel: (905) 873-2255; (800) 661-2023  
Fax: (905) 873-1992; (800) 516-9081

E-mail: [instruments@solinst.com](mailto:instruments@solinst.com)  
Web Site: [www.solinst.com](http://www.solinst.com)

## **Limited Warranty**

Solinst Canada Ltd. (Solinst) hereby warrants to the user, subject to the conditions outlined herein, that all standard products manufactured by Solinst, will be free of defects in workmanship and materials for a period of three years from the date of shipment from Solinst, with the exception of the 3001 Levellogger® Junior Series, Power Reels, Telemetry Systems (9100 & 9200), 401 Waterloo Multilevel Systems and 403 CMT Multilevel Systems, which have limited warranties of one year.

Solinst warrants to repair or, at its option, replace any such defective equipment determined to its satisfaction to have a defect in workmanship or original material, upon return of such defective equipment to Solinst with all shipping charges prepaid by the user, provided that written notice and an explanation of the claimed defect is promptly submitted to Solinst.

In no event shall Solinst be liable for any direct, indirect, consequential or special damages, abuse, acts of third parties, environmental conditions, force of nature, or for installation, adjustment or other expenses which may arise in connection with such defective equipment. Further, this warranty shall not apply to damage to the equipment caused by incorrect installation, usage, storage, alteration or inadequate care.

This warranty does not apply to parts, assemblies or devices not manufactured by Solinst which are covered by other manufacturers' warranties. There are no warranties except as specifically provided in writing herein.

March 1, 2012

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## BEAUMONT BASIN WATERMASTER MEMORANDUM NO. 15-04

**Date:** February 4, 2015

**From:** Hannibal Blandon, ALDA

**Subject:** Task Order No. 6 with ALDA for the Installation of Water Level Monitoring Equipment in the Beaumont Basin, Collection of Water Level Data, and Reporting to Watermaster Committee

**Recommendation:** That the Watermaster members approve Task Order No. 6 for a sum not to exceed \$18,490.00 and authorize an equal assessment to Watermaster members to fund the expense.

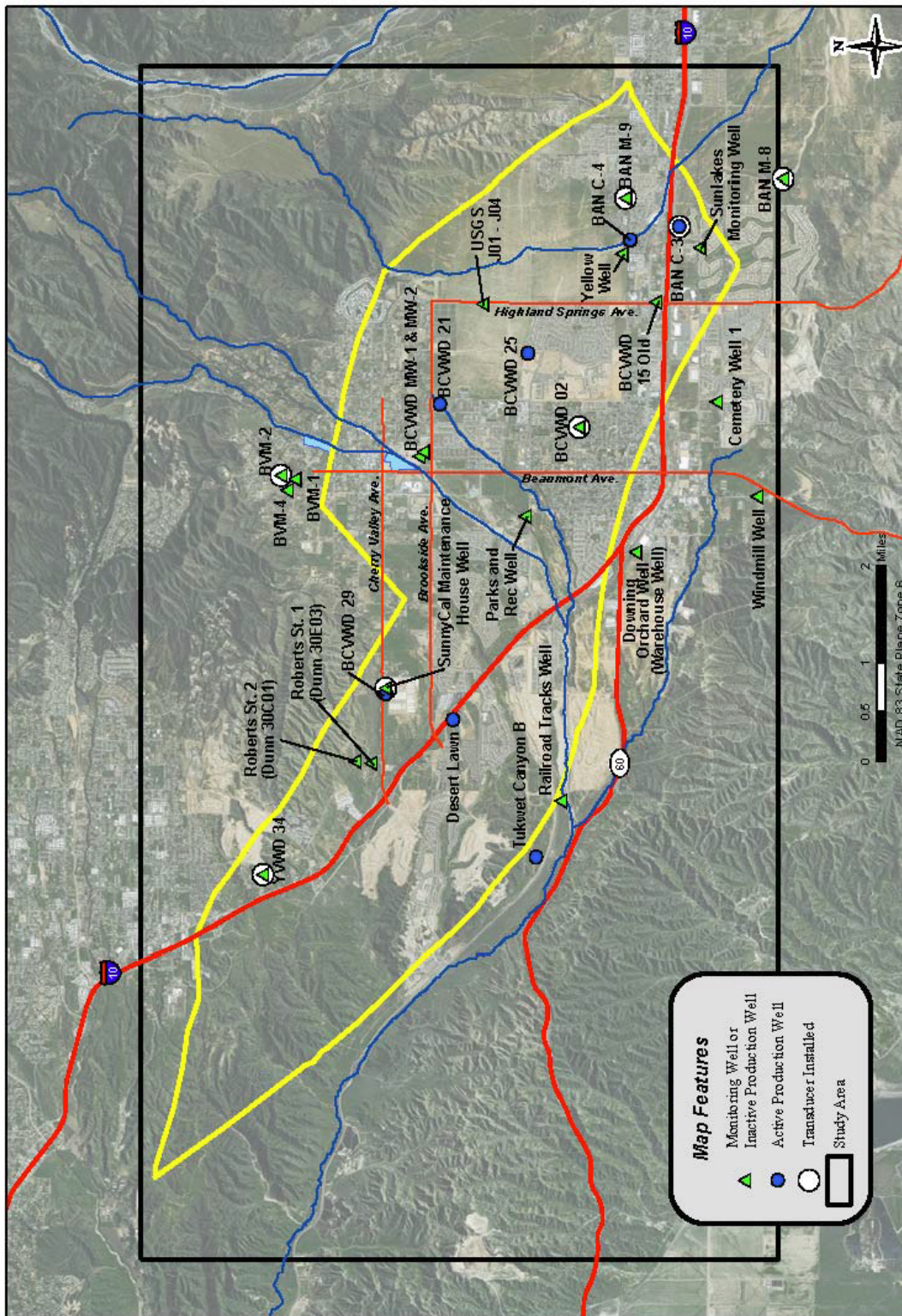
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This agenda item is directly related to Watermaster Memorandum No. 15-03 considered earlier during the meeting.

In order to install the groundwater level monitoring equipment at twelve selected sites, to maintain and collect the information, and to report water level trends at the regular Watermaster Committee meetings the Watermaster should also consider approving Task Order No. 6 with ALDA.

The financial impacts associated with the proposed contract would result in a budget line item of approximately \$18,500.00 and will require a direct assessment be levied upon the Watermaster members in equal amounts.





**Alda, Inc.** in association with  
 Thomas Harder & Co.  
 Groundwater Consulting  
 29-Jan-15

# ALDA Inc.

5928 Vineyard Avenue  
Alta Loma, CA 91701  
Tel: (909) 587-9916  
Fax: (909) 498-0423

January 30, 2015

Joseph B. Zoba, General Manager  
Yucaipa Valley Water District  
12770 Second Street  
Yucaipa, California 92399

Subject: **Beaumont Basin Watermaster – Task Order No. 6  
Installation and Maintenance of Water Level Monitoring Equipment**

Dear Mr. Zoba:

Please find attached our proposed scope of services and consulting fee for Task Order No. 6 under the Engineering Services contract with the Beaumont Basin Watermaster dated May 10, 2012. The proposed scope of services includes a) coordination of equipment purchase and authorization from private owners, b) installation of monitoring equipment at 12 selected sites, c) operations and maintenance of equipment, and d) reporting to Watermaster Committee.

We welcome your thorough review of our proposed scope services. Should you have any questions on our proposed services or need further information, please contact us at 909-587-9916 during normal business hours.

Very truly yours

ALDA Inc.



F. Anibal Blandon, P.E.  
Principal



Beaumont Basin Watermaster – Task Order No. 6  
2015 Consolidated Annual Report and Associated Consulting Services

Jan 30, 2015

## TASK OBJECTIVES

The objectives of Task No. 7 are as follows:

- A. Install Groundwater Level Monitoring Equipment at 12 Sites
- B. Conduct Operations and Maintenance of Equipment
- C. Report Water Level Conditions to Watermaster Committee

## SCOPE OF SERVICES

### Task 1 – Selection of Final Sites and Equipment Acquisition

The ALDA/TH&Co team will select the final 12 monitoring sites for installation of water level monitoring equipment. Selection of the final sites will be based on a number of parameters including location within the basin, distance to pumping wells, accessibility to site, and on-site improvements requirement amongst others. As part of this effort, the ALDA/TH&Co team will contact property owners as applicable to obtain authorization for installation of monitoring equipment. Upon selection of final sites, a list of equipment will be developed and presented to Watermaster for ordering of the equipment.

Estimated Hours: 8 Hours

Estimated Cost: \$1,140.00

### Task 2 – Installation of Monitoring Equipment

The ALDA/TH&Co team will install water level probes at each of the selected sites and one barologger probe at one site to record barometric pressure. Required modifications at some of the well head sites, such as installation of plates, locks, measurement ports, etc., will be coordinated by the ALDA/TH&Co team to make sure all sites operate adequately and the monitoring equipment is secured.

In addition, groundwater level at each site will be determined to calibrate the monitoring probes individually.

Estimated Hours: 48 Hours

Estimated Cost: \$5,400.00

Other Direct Cost: \$1,000.00

### Task 3 – Operations and Maintenance of Selected Sites

The ALDA/TH&Co team will visit the selected sites every two months to download the collected data and to check that the probes are working as intended. In addition, probes will be calibrated twice a year. Close coordination with member agencies and selected private parties will be required to gain access to the sites during each visit. A total of five visits to each site is anticipated during Calendar Year 2015.

Estimated Hours: 84 Hours

Estimated Cost: \$9,240.00

Beaumont Basin Watermaster – Task Order No. 6  
2015 Consolidated Annual Report and Associated Consulting Services

Jan 30, 2015

#### Task 4 – Reporting to Watermaster

The information collected at the selected sites will be tabulated and presented at the Watermaster Committee meetings as a regular agenda item. In addition, water level histograms will be prepared and incorporated into the annual report.

Estimated Hours: 12 Hours

Estimated Cost: \$1,710.00

#### COST ESTIMATE

Our estimated cost to perform the scope of work as outlined herein is \$18,490.00 (Eighteen Thousand Four Hundred Ninety Dollars and 00/100); this estimate is based on 152 technical and administrative hours and an estimated \$1,000.00 (One Thousand Dollars) in other direct cost to make modifications to existing sites. Services will be billed on a time and material basis up to the approved limit and according to the billing rates below.

#### Billing Rates for ALDA Inc.

Billing rates for Calendar Year 2015 are as follows:

<u>Position</u>	<u>Hourly Rate</u>
Project Manager	\$150.00
Project Engineer	\$135.00
Staff Engineer	\$110.00
Graphics / Designer Drafter	\$ 90.00
Drafter	\$ 75.00
Clerical	\$ 65.00

#### Billing Rates for Thomas Harder and Company

Billing rates for Calendar Year 2015 are as follows:

<u>Position</u>	<u>Hourly Rate</u>
Principal Hydro-geologist	\$160.00
Staff Hydro-geologist	\$ 90.00
Field Technician	\$ 70.00
Graphics	\$ 85.00
Clerical	\$ 65.00
Expert Witness	\$320.00



## BEAUMONT BASIN WATERMASTER MEMORANDUM NO. 15-05

**Date:** February 4, 2015

**From:** Hannibal Blandon, ALDA

**Subject:** Task Order No. 7 with ALDA for the Preparation of the 2014 Consolidated Annual Report, Estimate of the Basin Safe Yield, Update of the Groundwater Model, and Associated Consulting Services

**Recommendation:** That the Watermaster Committee approves Task Order No. 7 for a sum not to exceed \$80,790 and authorize an equal assessment to Watermaster members to fund the expense.

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A new task order is necessary to authorize ALDA Inc. to provide technical support services to the Watermaster Committee during Calendar Year 2015.

The proposed scope of services for Task Order No. 7, consistent with previously years, provides for the preparation of the 2014 Consolidated Annual Report, estimate of the 2014 Safe Yield of the Beaumont Basin, and Associated Consulting Services in support to Watermaster activities. In addition, this task order incorporates the annual update of the groundwater model to 2014 hydrologic conditions.

The financial impacts associated with the proposed contract would result in a budget line item of approximately \$81,000.00.

# ALDA Inc.

5928 Vineyard Avenue  
Alta Loma, CA 91701  
Tel: (909) 587-9916  
Fax: (909) 498-0423

January 30, 2015

Joseph B. Zoba, General Manager  
Yucaipa Valley Water District  
12770 Second Street  
Yucaipa, California 92399

Subject: **Beaumont Basin Watermaster – Task Order No. 7  
Engineering Support Services for Calendar Year 2015**

Dear Mr. Zoba:

Please find attached our proposed scope of services and consulting fee for Task Order No. 7 under the Engineering Services contract with the Beaumont Basin Watermaster dated May 10, 2012. The proposed scope of services includes a) prepare the consolidated Annual Report for 2014, b) estimate of the operating safe yield for 2014, c) update the groundwater model to include 2014 hydrologic data, and d) provide general consulting services in support to Watermaster activities.

We welcome your thorough review of our proposed scope services. Should you have any questions on our proposed services or need further information, please contact us at 909-587-9916 during normal business hours.

Very truly yours

ALDA Inc.



F. Anibal Blandon, P.E.  
Principal

Beaumont Basin Watermaster – Task Order No. 7  
2015 Consolidated Annual Report and Associated Consulting Services

---

Jan 30, 2015

## TASK OBJECTIVES

The objectives of Task No. 7 are as follows:

- A. Prepare the consolidated Annual Report for CY 2014
- B. Estimate the Operating Safe Yield for Calendar Year 2014
- C. Update Groundwater Model to Include 2014 Hydrologic Data
- D. Provide general consulting support services

## SCOPE OF SERVICES

### Task 1 – Data Collection

The ALDA/TH&Co team will collect, compile, and tabulate the following data:

- ✓ Climate and hydrologic information
- ✓ Monitoring and data collection programs
- ✓ Monthly water production from member agencies
- ✓ Monthly imported water recharge by each party
- ✓ Monthly rainfall from the USGS, Army Corps, and/or National Weather Service
- ✓ Monthly static groundwater levels at dedicated monitoring wells and selected production wells from the water agencies
- ✓ Monthly deliveries of imported water, groundwater from other basins, and surface water diversions from various water agencies
- ✓ Semi-annual static groundwater levels from production wells
- ✓ Water quality information as documented in the California Department of Public Health database.

### Task 2 – Preparation of Expanded Annual Report

The expanded annual report will consolidate the topics discussed in previous annual reports and those included in the bi-annual Engineering Report. The ALDA/TH&Co team will prepare a draft and a final annual report documenting the operations of the Beaumont Basin Watermaster. This includes water levels, water transfers between agencies, water production, assessment of basin conditions, carryovers, replenishment obligations and water quality conditions throughout the basin. In addition, the report will incorporate the results of the Operating Safe Yield analysis, conducted under Task 3 and long term hydrographs from selected wells in the basin. The report will also include the annual independent financial reports (prepared by others) and a description of Watermaster activities and Board actions.

With regards to water quality, the analysis will focus on nitrate, TDS, and some trace metals. In addition, the report will document current water quality concentrations in relation to current Federal and State Drinking Water Standards.

Beaumont Basin Watermaster – Task Order No. 7  
2015 Consolidated Annual Report and Associated Consulting Services Jan 30, 2015

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Ten color copies of the draft and final annual reports will be provided along with a digital file of the report. In addition, an editable database will be provided that includes all supporting information for the annual report.

### **Task 3 – Annual Determination of the Operating Safe Yield**

The ALDA/TH&Co team will review groundwater levels, groundwater production, and groundwater recharge data for the Beaumont Basin area as a basis for determining the annual operating safe yield (OSY) of the basin for the Calendar Year 2013. The focus of the review will be groundwater level trends at the eight monitoring wells previously reported in the annual reports. Groundwater level trends will be evaluated in the context of groundwater production and basin and artificial recharge in order to make a determination of OSY.

The ALDA/TH&Co team will generate an Annual OSY Technical Memorandum (TM) that summarizes the analysis and provides a recommended OSY for the upcoming year. The TM will be suitable for incorporation into the Annual Report.

### **Task 4 – Update Groundwater Model to 2014 Conditions**

The ALDA/TH&Co team will prepare and input the 2013 and 2014 groundwater levels, groundwater production, and artificial recharge into the groundwater flow model for analysis. The model will be run with the updated data and the results analyzed to validate the calibration. The budget for this task assumes that additional calibration will not be necessary.

### **Task 5 – Review of Rules and Regulations**

The ALDA/TH&Co team will review the existing Rules and Regulations annually to determine whether it reflects current policies/practices and will make recommendations that will be documented as part of the annual report.

### **Task 6 – Meeting Attendance and Agenda Assistance**

The ALDA/TH&Co team will prepare for, attend, and participate in up to six (6) Watermaster meetings in 2015. In addition, the ALDA/TH&Co team will assist in agenda preparation as required by Watermaster.

## **SCHEDULE**

A draft of the expanded annual report and operating safe yield will be presented to the Beaumont Basin Watermaster at the April 2015 Board meeting. Comments on the draft annual report will be addressed and presented at the June 2015 Board meeting. General consulting support services will be provided throughout the year.



Beaumont Basin Watermaster – Task Order No. 7  
 2015 Consolidated Annual Report and Associated Consulting Services Jan 30, 2015

**COST ESTIMATE**

Our estimated cost to perform the scope of work as outlined herein is \$80,790.00 (Eighty Thousand Seven Hundred Ninety Dollars and 00/100); this estimate is based on 644 technical and administrative hours and is summarized in the attached table by task and sub-task. Billing rates for the 2015 Calendar Year remain the same since 2012 and are included at the end of this proposal.

**Beaumont Basin Watermaster  
 Engineering Consulting Fee for Task Order No. 7**

Beaumont Basin Watermaster - Task Order No. 7  
 Preparation of Expanded Annual Report and Operating Safe Yield for 2014 and General Support Services

Task / Subtask	ALDA Inc.					Thomas Harder & Co.				Total Hours	Cost (\$)
	Project Manager	Project Engineer	Staff Engineer	Graphics	Clerical	Principal Hydro-geologist	Staff Hydro-geologist	Graphics	Clerical		
<b>Task 1 - Data Collection</b>	18	28	44							90	\$ 11,320
<b>Task 2 - 2013 Annual Report</b>										328	\$ 39,190
2.1 - Document pumping for metered wells	4	16								20	\$ 2,760
2.2 - Document pumping for unmetered wells	4	8	8							20	\$ 2,560
2.3 - Document basin activities	4	16								20	\$ 2,760
2.4 - Develop groundwater contour maps	2					2	8	2		14	\$ 1,510
2.5 - Calculate change in storage	2					4	16	8		30	\$ 3,060
2.6 - Evaluate groundwater quality	16	32								48	\$ 6,720
2.7 - Incorporate long-term hydrographs	2	8								10	\$ 1,380
2.8 - Prepare draft report	8	32	16	20	16	8	8	12		120	\$ 13,140
2.9 - Prepare final report	6	16		8	8	4	4			46	\$ 5,300
<b>Task 3 - Operating Safe Yield</b>										66	\$ 7,560
3.1 - Review of data for 2013-14						2	20			22	\$ 2,120
3.2 - Preparation of OSY TMs for 2014	8					16	12	4	4	44	\$ 5,440
<b>Task 4 - Update Groundwater Model to 2014</b>	8	12				6	18			44	\$ 5,400
<b>Task 5 - Rules and Regulations</b>										16	\$ 2,400
<b>Task 6 - Meeting Attendance</b>										100	\$ 14,920
6.1 - Assistance with agenda preparation	24	8	8			12				52	\$ 7,480
6.2 - Attend Watermaster meetings	24					24				48	\$ 7,440
<b>TOTALS:</b>	<b>146</b>	<b>176</b>	<b>76</b>	<b>28</b>	<b>24</b>	<b>78</b>	<b>86</b>	<b>26</b>	<b>4</b>	<b>644</b>	<b>\$ 80,790</b>

Beaumont Basin Watermaster – Task Order No. 7  
 2015 Consolidated Annual Report and Associated Consulting Services

Jan 30, 2015

**Beaumont Basin Watermaster  
 Billing Rates for Task Order No. 7**

**Billing Rates for ALDA Inc.**

Billing rates for Calendar Year 2015 are as follows:

<u>Position</u>	<u>Hourly Rate</u>
Project Manager	\$150.00
Project Engineer	\$135.00
Staff Engineer	\$110.00
Graphics / Designer Drafter	\$ 90.00
Drafter	\$ 75.00
Clerical	\$ 65.00

**Billing Rates for Thomas Harder and Company**

Billing rates for Calendar Year 2015 are as follows:

<u>Position</u>	<u>Hourly Rate</u>
Principal Hydro-geologist	\$160.00
Staff Hydro-geologist	\$ 90.00
Field Technician	\$ 70.00
Graphics	\$ 85.00
Clerical	\$ 65.00
Expert Witness	\$320.00



**Date:** February 24, 2015

**Subject:** Discussion Regarding the Proposed “Ad Hoc” State of the Regional Water Supply Workshop Proposed by the San Gorgonio Pass Water Agency

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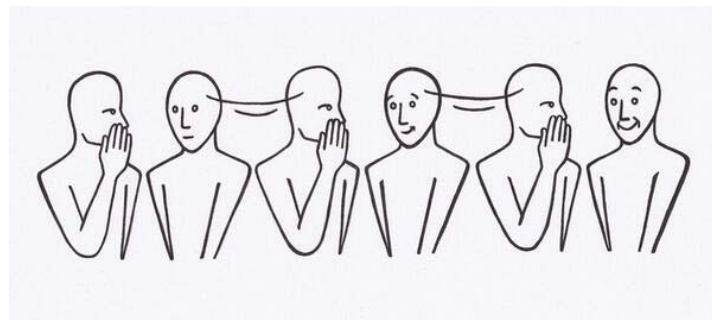
On Thursday, February 12, 2015, the District received correspondence from the San Gorgonio Pass Water Agency requesting our participation in a “State of the Regional Water Supply” workshop. The Board of Directors of the San Gorgonio Pass Water Agency are suggesting that their workshop would be a non-publicized, “ad hoc” meeting where participation would be limited to only two Yucaipa Valley Water District board members. These two board members would hear the Agency’s plans on long-term water supply strategies. Following the meeting hosted by the San Gorgonio Pass Water Agency, the two Yucaipa Valley Water District board members would then be responsible to bring information back and present the San Gorgonio Pass Water Agency plans to the full board members at a regular meeting by the Yucaipa Valley Water District.

Upon reviewing the correspondence from the San Gorgonio Pass Water Agency, the District staff suggested via email (attached) that the discussion about water issues should involve the public and be structured to allow all five of the board members of the Yucaipa Valley Water District to participate.

California Government Code Section 54952(b) and Joiner vs City of Sebastopol (1981) 125 Cal. App. 3d 799, 805 make it clear that only a temporary advisory committee composed **solely of less than a quorum of the legislative body** (and no one else) and that serves a limited purpose, that is not perpetual and will be dissolved once its task is completed, is not subject to the Brown Act.

It is important to recognize that a committee made up of less than a quorum of the San Gorgonio Pass Water Agency and less than a quorum of other agencies does not meet this narrow exception to the Brown Act. The Joiner case points out in finding that if a legislative body designates less than a quorum of its members to meet with less than a quorum of another legislative body to perform a task even if only advisory, such a committee is subject to the open meeting and notice provisions of the Brown Act.

In addition to eliminating an opportunity for public participation and violating the Brown Act, the proposed workshop by the Board of Directors of the San Gorgonio Pass Water Agency is very similar to the old telephone game in which one person whispers a message to another, which is passed through a line of people until the last player



announces the message to the entire group. Errors typically accumulate in the retellings, so the statement announced by the last player differs significantly, and often amusingly, from the one uttered by the first. This type of communication strategy does not help the San Geronio Pass Water Agency implement their long-term water supply plans.

Therefore, the Yucaipa Valley Water District staff believes that the “ad hoc” meeting structure proposed by the Board of Directors of the San Geronio Pass Water Agency is a violation of the Brown Act and represents a poor method to disseminate important long-term water supply information.

A simple solution is to provide public notice of the proposed workshops by the San Geronio Pass Water Agency and to conduct the meetings at a time when the public is most available to participate. This open and public format would provide an opportunity for all five elected officials from the Yucaipa Valley Water District to attend the meetings.

The Board of Directors should consider attending the next regular meeting of the San Geronio Pass Water Agency to express your specific opinions regarding the proposed workshop meeting structure.





## San Geronio Pass Water Agency

*A California State Water Project Contractor*  
1210 Beaumont Avenue • Beaumont, CA 92223  
Phone (951) 845-2577 • Fax (951) 845-0281

February 12, 2015

**President:**

*John Jeter*

**Vice President:**

*Bill Dickson*

**Treasurer:**

*Mary Ann Melleby*

**Directors:**

*Blair Ball*

*Ron Duncan*

*Ray Morris*

*Leonard Stephenson*

**General Manager**

**& Chief Engineer:**

*Jeff Davis, PE*

**Legal Counsel:**

*Russ Behrens*

*Best Best & Krieger*

Dear Retail Agency General Manager:

The San Geronio Pass Water Agency Board of Directors wishes to invite your retail agency to a "State of the Regional Water Supply" workshop involving water supply planning and the initial steps in the development of our 2015 Urban Water Management Plan (UWMP). Many of you also will be required to produce an UWMP next year.

This workshop, which is an important step in the process involved in creating the UWMP, could have a number of formats. One possible format discussed by the Board at a recent Board meeting includes having an "ad hoc" meeting where two members of your Board would meet with two members of the other Boards, including the Agency Board, to hear the Agency's plans on long-term water supply planning and to discuss them. These two members would then report back to your full Board of Directors. Additional meetings will be held as part of the public hearing process required for the preparation of the UWMP.

The Board will make the final determination on format, but they are interested in input from the retail agencies prior to making their decision.




I would appreciate hearing from you within the next two weeks or so if at all possible. Thank you. Please do not hesitate to contact me if you have any questions about this.

Sincerely,

A handwritten signature in black ink that reads "Jeff Davis".


Jeff Davis

General Manager

 Reply  Reply All  Forward






Joseph Zoba

'Jeff Davis'; Eric Fraser (eric.fraser@bcvwd.org); dburk@ci.banning.ca.us; 

 2

Thu C

## San Gorgonio Pass Water Agency - Proposed State of the Water Supply Ad Hoc Workshops

 Message  Letter to Retailers re State of the Water Supply Workshop Feb 2015.pdf (1,004 KB)  
 95-614.pdf (137 KB)

Jeff - I have reviewed your letter dated February 12,2015 (attached).

I believe the Board of Directors of the Yucaipa Valley Water District will strongly disagree with the use of an "ad hoc" committee to discuss: (1) the preparation of the 2015 San Gorgonio Pass Water Agency Urban Water Management Plan; and (2) the "[San Gorgonio Pass Water Agency] plans on long-term water supply". Both of these issues are under the continuing and ongoing jurisdiction of the San Gorgonio Pass Water Agency (as well as the water retailers) and as such, I believe that participation in the "ad hoc" meetings as proposed by the Board of Directors of the San Gorgonio Pass Water Agency would constitute a direct violation of the Brown Act. Therefore, the Yucaipa Valley Water District will likely not participate in the "ad hoc" meeting format as proposed by the San Gorgonio Pass Water Agency.

To be perfectly clear, the Yucaipa Valley Water District is extremely interested in the long-term water supply plans of the San Gorgonio Pass Water Agency and desires to be an active participant in the development, implementation, and management of water resources in our region. Therefore, I strongly suggest that the Board of Directors of the San Gorgonio Pass Water Agency reconsider the use of an "ad hoc" committee and instead conduct properly noticed, open, and public meetings so the public can attend the workshops as well as all of the elected officials from the retail water agencies. By conducting open meetings, the San Gorgonio Pass Water Agency will have an opportunity to communicate your long-term water supply plans to a larger audience which should help you attain your water supply goals. This is a simple solution that provides a quick remedy to allow the proposed meetings to proceed without a delay. Let's be advocates for public participation in the decision-making process related to the management of our water resources.

If you believe my interpretation of the Brown Act is incorrect, I would appreciate your written analysis of the California Attorney General Opinion 95-614 (attached) or other sections of the Brown Act as it relates to your proposed "ad hoc" meetings.

I will schedule this item for a discussion at my board workshop on Tuesday, February 24, 2015 at 4:00 pm to confirm that my board members will not be in attendance if the workshops are conducted as "ad hoc" meetings. I would appreciate your interpretation of AG Opinion 95-614 and any additional information supporting the legality of your proposed "ad hoc" meetings prior to my board workshop.

Joe

Joseph B. Zoba, General Manager

Yucaipa Valley Water District  
12770 Second Street  
Yucaipa, California 92399

TO BE PUBLISHED IN THE OFFICIAL REPORTS

OFFICE OF THE ATTORNEY GENERAL  
State of California

DANIEL E. LUNGREN  
Attorney General

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OPINION	:	
	:	No. 95-614
of	:	
	:	June 10, 1996
DANIEL E. LUNGREN	:	
Attorney General	:	
	:	
MAXINE P. CUTLER	:	
Deputy Attorney General	:	
	:	

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THE HONORABLE BRUCE McPHERSON, MEMBER OF THE CALIFORNIA STATE ASSEMBLY, has requested an opinion on the following questions:

1. Are the meetings of a standing committee composed of less than a quorum of the legislative body of a local public agency subject to the notice, agenda, and public participation requirements of the Ralph M. Brown Act, if the committee has the responsibility of providing advice concerning budgets, audits, contracts, and personnel matters to and upon request of the legislative body?

2. May a fourth member of a seven member legislative body of a local agency attend, as a member of the public, an open and noticed meeting of a less than a quorum advisory committee of that body, without violating the notice, agenda, and public participation requirements of the Ralph M. Brown Act applicable to meetings of the parent legislative body?

CONCLUSIONS

1. The meetings of a standing committee composed of less than a quorum of the legislative body of a local public agency are subject to the notice, agenda, and public participation requirements of the Ralph M. Brown Act, if the committee has the responsibility of providing advice concerning budgets, audits, contracts, and personnel matters to and upon request of the legislative body.

2. A fourth member of a seven member legislative body of a local agency may not attend, as a member of the public, an open and noticed meeting of a less than a quorum advisory

1. 95-614

committee of that body, without violating the notice, agenda, and public participation requirements of the Ralph M. Brown Act applicable to meetings of the parent legislative body.

#### ANALYSIS

A public water district in Central California is governed by a seven member board of directors. The board has established a subcommittee of three members to advise the board on administrative matters as needed. The subcommittee has been in existence for several years and generally meets monthly, but it does not have a fixed meeting schedule and operates under the following rule:

"The Administrative Committee shall consist of the three Directors appointed by the Chair and approved by the Board. *This committee shall not exercise continuing subject matter jurisdiction.* Its purpose shall be to advise the Board on administrative matters as appropriate. The Board of Directors shall not fix the meeting schedule of this committee. The committee may meet on the call of the chair or as decided by the members. Action taken by the Administrative Committee shall be subject to final Board approval." (Italics added.)

The two questions presented for resolution concern the circumstances and conditions under which the meetings of the board's subcommittee must be open to the public.

The Ralph M. Brown Act (Gov. Code, §§ 54950-54962; "Act")<sup>1</sup> provides that "[a]ll meetings of the legislative body of a local agency shall be open and public, and all persons shall be permitted to attend any meeting of a legislative body, except as otherwise provided in this chapter." (§ 54953, subd. (a).)<sup>2</sup> Unless otherwise authorized, notice must be given of each meeting to those who request it (§ 54954.1), an agenda must be posted (§ 54954.2), and the public must be provided an opportunity "to directly address the legislative body" (§ 54954.3).

The issues we are asked to address center upon the requirements, conditions, and limitations of sections 54952 and 54952.2. Section 54952 states:

"As used in this chapter, 'legislative body' means:

"(a) The governing body of a local agency or any other local body created by state or federal statute.

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<sup>1</sup>Unless otherwise indicated, all section references hereafter are to the Government Code.

<sup>2</sup>Various subjects may be discussed in closed session, such as real estate acquisitions, pending litigation, liability issues, personnel issues, labor negotiations, and certain ongoing criminal investigations, if proper notice and disclosures are made. (See §§ 54954.5, 54956.7-54957.7.)



"(b) A commission, committee, board, or other body of a local agency, whether permanent or temporary, decision making or advisory, created by charter, ordinance, resolution, or formal action of a legislative body. However, advisory committees, composed solely of the members of the legislative body which are less than a quorum of the legislative body are not legislative bodies, except that *standing committees of a legislative body, irrespective of their composition, which have continuing subject matter jurisdiction, or a meeting schedule fixed by charter, ordinance, resolution, or formal action of a legislative body are legislative bodies* for purposes of this chapter." (Italics added.)

Section 54952.2 states:

"(a) As used in this chapter, 'meeting' includes any congregation of a majority of the members of a legislative body at the same time and place to hear, discuss, or deliberate upon any item that is within the subject matter jurisdiction of the legislative body or the local agency to which it pertains.

". . . . .

"(c) Nothing in this section shall impose the requirements of this chapter upon any of the following:

". . . . .

"(4) *The attendance of a majority of the members of a legislative body at an open and noticed meeting of another body of the local agency, provided that a majority of the members do not discuss among themselves, other than as part of the scheduled meeting, business of a specific nature that is within the subject matter jurisdiction of the legislative body of the local agency.*" (Italics added.)

1. Continuing Subject Matter Jurisdiction

The first question presented concerns whether a standing committee, composed of less than a quorum of the legislative body, has "continuing subject matter jurisdiction" for purposes of section 54952, subdivision (b), if it provides advice on budgets, audits, contracts, and personnel matters upon request of the legislative body. We conclude that the Act's requirements would be applicable to the subcommittee's meetings.

With respect to the application of the phrase "continuing subject matter jurisdiction" as used in section 54952, we are guided by well established principles of statutory construction. "When interpreting a statute our primary task is to determine the Legislature's intent." (*Freedom Newspapers, Inc. v. Orange County Employees Retirement System* (1993) 6 Cal. 4th 821, 826.) "To determine the intent of legislation, we first consult the words themselves, giving them their usual and ordinary meaning." (*Da Fonte v. Up-Right, Inc.* (1992) 2 Cal.4th 593, 601.) "In construing a statute the court will consider the purpose of the law and adopt a construction which will further that purpose."

(*Robinson v. Fair Employment and Housing Com'n* (1992) 2 Cal.4th 226, 234.) "Consistent with the intent of the Legislature, a statute should be accorded a reasonable and common sense interpretation, avoiding absurd or impractical results." (*Dakin v. Department of Forestry & Fire Protection* (1993) 17 Cal.App.4th 681, 686.)

The general purposes of the Act are set forth in section 54950:

"In enacting this chapter, the Legislature finds and declares that the public commissions, boards and councils and other public agencies in this State exist to aid in the conduct of the people's business. It is the intent of the law that their actions be taken openly and that their deliberations be conducted openly.

"The people of this State do not yield their sovereignty to the agencies which serve them. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments they have created."

The courts have liberally construed the terms of the Act so as to effectuate its purposes. (See *Rowan v. Santa Clara Unified School Dist.* (1981) 121 Cal.App.3d 231, 235; *Sacramento Newspaper Guild v. Sacramento County Bd. of Suprs.* (1968) 263 Cal.App.2d 41, 48.)

We note that a "standing committee" is commonly defined as "a committee to consider subjects of a particular class arising during a stated period; specif[ically] a permanent committee of a legislative body." (Webster's Third New Internat. Dict. (1971) p. 2224.) "Permanent" may be commonly defined as "to endure, remain." (*Id.*, at p. 1683.)

As for the phrase "continuing subject matter jurisdiction," we find that "continuing" means "needing no renewal" (Webster's, *supra*, at p. 493), "subject matter" means "matter presented for consideration" (*id.*, at p. 2276), and "jurisdiction" means "power, right, or authority to hear . . . a cause" (*id.*, at p. 1227).

Applying these common definitions in carrying out the Act's purposes, we believe that the subcommittee in question has the authority to hear and consider issues relating to budgets, audits, contracts, and personnel matters and that its authority needs no renewal. As such, it is a "legislative body" under the terms of section 54952, subdivision (b), and its meetings are subject to the Act's requirements of notice, a posted agenda, and public participation. Although under its local operating rule, the subcommittee "shall not exercise continuing subject matter jurisdiction," we do not find such rule provision to be determinative. The language of the local rule appears inconsistent at best and may not be used to thwart the purposes and requirements of the Act.

We thus follow function over form in carrying out the Legislature's purposes. In particular, this subcommittee does not have a limited term, and it is not an ad hoc committee charged with accomplishing a specific task in a short period of time. Further, it is irrelevant for purposes of section 54952 that the subcommittee is advisory rather than decision making, that its meetings are

called by the chair of the subcommittee rather than by formal action of the legislative body, or that some, but not all, of the matters under its jurisdiction are referred to it. The purpose of the subcommittee is to advise the legislative body when requested on those matters within its continuing subject matter jurisdiction.

We conclude that the meetings of a standing committee composed of less than a quorum of a legislative body are subject to the notice, agenda, and public participation requirements of the Act, if the committee has the responsibility of providing advice on budgets, audits, contracts, and personnel matters upon request of the legislative body.

## 2. Presence of a Quorum

The second inquiry concerns whether a fourth member of a seven member legislative body of a local agency may attend, as a member of the public, a public meeting of a less than a quorum advisory committee of that body, without violating the notice, agenda, and public participation requirements applicable to meetings of the parent legislative body.

As quoted above, the term "meeting" is defined in section 54952.2, subdivision (a), to include "any congregation of a majority of the members of a legislative body at the same time and place to hear, discuss, or deliberate upon any item that is within the subject matter jurisdiction of the legislative body or the local agency to which it pertains."<sup>3</sup> Unless an exception applies, attendance by a fourth member of a seven member legislative body of a local agency at a less than a quorum subcommittee meeting would constitute a meeting of the legislative body itself and thus would result in a violation of the notice, agenda, and public participation requirements for meetings held by the parent legislative body.

Section 54952.2, subdivision (c)(4), however, provides an exception to the requirements of the Act for the

". . . attendance of a majority of the members of a legislative body *at an open and noticed meeting of another body of the local agency*, provided that a majority of the members do not discuss among themselves, other than as part of the scheduled meeting, business of a specific nature that is within the subject matter jurisdiction of the legislative body of the local agency." (Italics added.)

It has been suggested that since a subcommittee with continuing subject matter jurisdiction is itself a "legislative body" (§ 54952, subd. (b)) subject to the notice, agenda, and public participation requirements of the Act, such a subcommittee would be "another body" of the local agency for purposes of the section 54952.2, subdivision (c)(4) exception. Under this interpretation, a fourth

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<sup>3</sup>The term "meeting" was not defined by the Legislature prior to the enactment of section 54952.2 (Stats. 1993, ch. 1136, § 2) operative April 1, 1994. Prior to that time numerous judicial decisions and opinions of this office determined that the Act essentially governed all meetings of a quorum of the legislative body when the public's business was discussed. (See *Frazer v. Dixon Unified School Dist.* (1993) 18 Cal.App.4th 781, 796-797.)

member of the parent legislative body could attend, hear, and discuss, as a member of the public, items that are part of the scheduled subcommittee meeting. We reject this interpretation of section 54952.2, subdivision (c)(4), for several reasons.

"[I]f a statute is amenable to two alternative interpretations, the one that leads to the more reasonable result will be followed [citation]." (*Lungren v. Deukmejian* (1988) 45 Cal.3d 727, 735.) "In analyzing statutory language, we seek to give meaning to every word and phrase in the statute to accomplish a result consistent with the legislative purpose, i.e., the object to be achieved and the evil to be prevented by the legislation. [Citations.]" (*Harris v. Capital Growth Investors XIV* (1991) 52 Cal.3d 1142, 1159.)

As we explained in answer to the first question, the provisions of the Act are to be liberally construed to prevent subterfuge and evasion of the Legislature's purposes. The actions of public agencies are to be taken only after proper notice has been given to the public so that members of the public will have a meaningful opportunity to present their views while the decisions are still pending.

In *Stockton Newspapers, Inc. v. Redevelopment Agency* (1985) 171 Cal.App.3d 95, for example, the court determined that a series of telephone conversations between members of a legislative body constituted a "meeting" subject to the requirements of the Act. In discussing the exception applicable for meetings of subcommittees composed of less than a quorum of the members, the court stated:

"... [T]his exception contemplates that the part of the governing body constituting less than a quorum 'will report back to the parent body where there will *then* be a full opportunity for public discussion of matters not already considered by the full board or a quorum thereof.' [Citations.] Such is not the case where a number of the members sufficient to constitute a quorum of the legislative body has already been informed and deliberated, albeit serially, on a matter of public business by the time the matter reaches the stage of public discussion. [Citation.]" (*Id.*, at pp. 102-103.)

The courts will thus carefully scrutinize the particulars of each situation and invalidate an attempt to evade the purposes of the Act.

Here, items within the subject matter jurisdiction of a subcommittee will necessarily also be within the subject matter jurisdiction of the parent legislative body. If a majority of the legislative body is allowed to be present at a subcommittee meeting held to consider items that presumably will appear on a future agenda of the legislative body, proper notice and public participation cannot be assured. An item may be resolved at the subcommittee meeting by a quorum of the members, with the action later taken at the legislative body's own meeting constituting a mere "rubber stamp." Although the subcommittee meeting would be noticed and open to the public, the public would not anticipate that items will be resolved at that meeting due to the less than a quorum composition of the subcommittee. Members of the public wishing to present their views when the item is to be decided will attend the legislative body's meeting only to find that the decision has in effect already been made. The public will effectively be denied the right to present views prior to the



legislative body's actual determination. Such result would undermine the Legislature's purposes in requiring notice, a posted agenda, and public participation prior to the resolution of a matter by a legislative body.

We believe that the section 54952.2, subdivision (c)(4) exception is intended to govern the situation where a majority of the members of a legislative body attend a meeting of another body of the local agency that is composed of persons different from the legislative body members themselves. For example, a majority of city council members may attend a meeting of the city's planning commission. The planning commission would be expected to take action with respect to the items on its published agenda, and the public would not expect the city council members to resolve any of the items at that time. Subdivision (c)(4) of section 54952.2 allows the entire city council to attend the planning commission meeting without it being considered a meeting of the city council, where the public will still have a meaningful opportunity to address the city council on any items referred to it by the commission. A contrary construction of section 54952.2 would allow a legislative body to conduct virtually all of its public business in subcommittee meetings without proper public notice or participation.

We conclude that a fourth member of a seven member legislative body of a local agency may not attend, as a member of the public, an open and noticed meeting of a less than a quorum advisory committee of that body, without violating the notice, agenda, and public participation requirements of the Act applicable to meetings of the parent legislative body.

\* \* \* \* \*

# Director Comments



Yucaipa Valley Water District



## FACTS ABOUT THE YUCAIPA VALLEY WATER DISTRICT

**Service Area Size:** 40 square miles (sphere of influence is 68 square miles)

**Elevation Change:** 3,140 foot elevation change (from 2,044 to 5,184 feet)

**Number of Employees:** 5 elected board members  
57 full time employees

**Operating Budget:** Water Division - \$13,072,750  
Sewer Division - \$11,689,000  
Recycled Water Division - \$433,500  
Total Annual Budget - \$25,195,250

**Number of Services:** 12,206 water connections serving 16,843 units  
13,492 sewer connections serving 20,312 units  
62 recycled water connections

**Water System:** 215 miles of drinking water pipelines  
27 reservoirs - 34 million gallons of storage capacity  
18 pressure zones  
12,000 ac-ft annual water demand (3.9 billion gallons)  
Two water filtration facilities:  
- 1 mgd at Oak Glen Surface Water Filtration Facility  
- 12 mgd at Yucaipa Valley Regional Water Filtration Facility

**Sewer System:** 8.0 million gallon treatment capacity - current flow at 4.0 mgd  
205 miles of sewer mainlines  
5 sewer lift stations  
4,500 ac-ft annual recycled water prod. (1.46 billion gallons)

**Recycled Water:** 22 miles of recycled water pipelines  
5 reservoirs - 12 million gallons of storage  
1,200 ac-ft annual recycled demand (0.4 billion gallons)

**Brine Disposal:** 2.2 million gallon desalination facility at sewer treatment plant  
1.108 million gallons of Inland Empire Brine Line capacity  
0.295 million gallons of treatment capacity in Orange County



## THE MEASUREMENT OF WATER PURITY

**One part per hundred** is generally represented by the percent (%).  
This is equivalent to about fifteen minutes out of one day.

**One part per thousand** denotes one part per 1000 parts.  
This is equivalent to about one and a half minutes out of one day.

**One part per million (ppm)** denotes one part per 1,000,000 parts.  
This is equivalent to about 32 seconds out of a year.

**One part per billion (ppb)** denotes one part per 1,000,000,000 parts.  
This is equivalent to about three seconds out of a century.

**One part per trillion (ppt)** denotes one part per 1,000,000,000,000 parts.  
This is equivalent to about three seconds out of every hundred thousand years.

**One part per quadrillion (ppq)** denotes one part per 1,000,000,000,000,000 parts.  
This is equivalent to about two and a half minutes out of the age of the Earth (4.5 billion years).







## GLOSSARY OF COMMONLY USED TERMS

Every profession has specialized terms which generally evolve to facilitate communication between individuals. The routine use of these terms tends to exclude those who are unfamiliar with the particular specialized language of the group. Sometimes jargon can create communication cause difficulties where professionals in related fields use different terms for the same phenomena.

Below are commonly used water terms and abbreviations with commonly used definitions. If there is any discrepancy in definitions, the District's Regulations Governing Water Service is the final and binding definition.

**Acre Foot of Water** - The volume of water (325,850 gallons, or 43,560 cubic feet) that would cover an area of one acre to a depth of 1 foot.

**Activated Sludge Process** – A secondary biological sewer treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen, and consume dissolved nutrients in the wastewater.

**Annual Water Quality Report** - The document is prepared annually and provides information on water quality, constituents in the water, compliance with drinking water standards and educational material on tap water. It is also referred to as a Consumer Confidence Report (CCR).

**Aquifer** - The natural underground area with layers of porous, water-bearing materials (sand, gravel) capable of yielding a supply of water; see Groundwater basin.

**Backflow** - The reversal of water's normal direction of flow. When water passes through a water meter into a home or business it should not reverse flow back into the water mainline.

**Best Management Practices (BMPs)** - Methods or techniques found to be the most effective and practical means in achieving an objective. Often used in the context of water conservation.

**Biochemical Oxygen Demand (BOD)** – The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

**Biosolids** – Biosolids are nutrient rich organic and highly treated solid materials produced by the sewer treatment process. This high-quality product can be used as a soil amendment on farm land or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

**Catch Basin** – A chamber usually built at the curb line of a street, which conveys surface water for discharge into a storm sewer.

**Capital Improvement Program (CIP)** – Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

**Collector Sewer** – The first element of a wastewater collection system used to collect and carry wastewater from one or more building sewer laterals to a main sewer.

**Coliform Bacteria** – A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere and is generally used as an indicator of sewage pollution.

**Combined Sewer Overflow** – The portion of flow from a combined sewer system, which discharges into a water body from an outfall located upstream of a wastewater treatment plant, usually during wet weather conditions.

**Combined Sewer System**– Generally older sewer systems designed to convey both sewage and storm water into one pipe to a wastewater treatment plant.

**Conjunctive Use** - The coordinated management of surface water and groundwater supplies to maximize the yield of the overall water resource. Active conjunctive use uses artificial recharge, where surface water is intentionally percolated or injected into aquifers for later use. Passive conjunctive use is to simply rely on surface water in wet years and use groundwater in dry years.

**Consumer Confidence Report (CCR)** - see Annual Water Quality Report.

**Cross-Connection** - The actual or potential connection between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply.

**Disinfection By-Products (DBPs)** - The category of compounds formed when disinfectants in water systems react with natural organic matter present in the source water supplies. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite

**Drought** - a period of below average rainfall causing water supply shortages.

**Dry Weather Flow** – Flow in a sanitary sewer during periods of dry weather in which the sanitary sewer is under minimum influence of inflow and infiltration.

**Fire Flow** - The ability to have a sufficient quantity of water available to the distribution system to be delivered through fire hydrants or private fire sprinkler systems.

**Gallons per Capita per Day (GPCD)** - A measurement of the average number of gallons of water use by the number of people served each day in a water system. The calculation is made by dividing the total gallons of water used each day by the total number of people using the water system.

**Groundwater Basin** - An underground body of water or aquifer defined by physical boundaries.

**Groundwater Recharge** - The process of placing water in an aquifer. Can be a naturally occurring process or artificially enhanced.

**Hard Water** - Water having a high concentration of minerals, typically calcium and magnesium ions.

**Hydrologic Cycle** - The process of evaporation of water into the air and its return to earth in the form of precipitation (rain or snow). This process also includes transpiration from plants, percolation into the ground, groundwater movement, and runoff into rivers, streams and the ocean; see Water cycle.

**Infiltration** – Water other than sewage that enters a sewer system and/or building laterals from the ground through defective pipes, pipe joints, connections, or manholes. Infiltration does not include inflow. See *Inflow*.

**Inflow** - Water other than sewage that enters a sewer system and building sewer from sources such as roof vents, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm drains and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include infiltration. See *Infiltration*.

**Inflow / Infiltration (I/I)** – The total quantity of water from both inflow and infiltration.

**Mains, Distribution** - A network of pipelines that delivers water (drinking water or recycled water) from transmission mains to residential and commercial properties, usually pipe diameters of 4" to 16".

**Mains, Transmission** - A system of pipelines that deliver water (drinking water or recycled water) from a source of supply the distribution mains, usually pipe diameters of greater than 16".

**Meter** - A device capable of measuring, in either gallons or cubic feet, a quantity of water delivered by the District to a service connection.

**Overdraft** - The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin. This pumping results in a depletion of the groundwater in the basin which has a net effect of lowering the levels of water in the aquifer.

**Peak Flow** – The maximum flow that occurs over a specific length of time (e.g., daily, hourly, instantaneously).

**Pipeline** - Connected piping that carries water, oil or other liquids. See Mains, Distribution and Mains, Transmission.

**Point of Responsibility, Metered Service** - The connection point at the outlet side of a water meter where a landowner's responsibility for all conditions, maintenance, repairs, use and replacement of water service facilities begins, and the District's responsibility ends.

**Potable Water** - Water that is used for human consumption and regulated by the California Department of Public Health.

**Pressure Reducing Valve** - A device used to reduce the pressure in a domestic water system when the water pressure exceeds desirable levels.

**Pump Station** - A drinking water or recycled water facility where pumps are used to push water up to a higher elevation or different location.

**Reservoir** - A water storage facility where water is stored to be used at a later time for peak demands or emergencies such as fire suppression. Drinking water and recycled water systems will typically use concrete or steel reservoirs. The State Water Project system considers lakes, such as Shasta Lake and Folsom Lake to be water storage reservoirs.

**Runoff** - Water that travels downward over the earth's surface due to the force of gravity. It includes water running in streams as well as over land.

**Sanitary Sewer System** - Sewer collection system designed to carry sewage, consisting of domestic, commercial, and industrial wastewater. This type of system is not designed nor intended to carry water from rainfall, snowmelt, or groundwater sources. See *Combined Sewer System*.

**Sanitary Sewer Overflow** – Overflow from a sanitary sewer system caused when total wastewater flow exceeds the capacity of the system. See *Combined Sewer Overflow*.

**Santa Ana River Interceptor (SARI) Line** – A regional brine line designed to convey 30 million gallons per day of non-reclaimable wastewater from the upper Santa Ana River basin to the sewer treatment plant operated by Orange County Sanitation District.

**Secondary Treatment** – Biological sewer treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

**Supervisory Control and Data Acquisition (SCADA)** - A computerized system which provides the ability to remotely monitor and control water system facilities such as reservoirs, pumps and other elements of water delivery.

**Service Connection** - The water piping system connecting a customer's system with a District water main beginning at the outlet side of the point of responsibility, including all plumbing and equipment located on a parcel required for the District's provision of water service to that parcel.

**Sludge** – Untreated solid material created by the treatment of sewage.

**Smart Irrigation Controller** - A device that automatically adjusts the time and frequency which water is applied to landscaping based on real-time weather such as rainfall, wind, temperature and humidity.

**Special District** - A political subdivision of a state established to provide a public services, such as water supply or sanitation, within a specific geographic area.

**Surface Water** - Water found in lakes, streams, rivers, oceans or reservoirs behind dams.

**Total Suspended Solids (TSS)** – The amount of solids floating and in suspension in water or sewage.

**Transpiration** - The process by which water vapor is released into the atmosphere by living plants.

**Trickling Filter** – A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in primary treated sewage as it trickles over them.

**Underground Service Alert (USA)** - A free service that notifies utilities such as water, telephone, cable and sewer companies of pending excavations within the area (dial 8-1-1 at least 2 working days before you dig).

**Urban Runoff** - Water from city streets and domestic properties that typically carries pollutants into the storm drains, rivers, lakes, and oceans.

**Valve** - A device that regulates, directs or controls the flow of water by opening, closing or partially obstructing various passageways.

**Wastewater** – Any water that enters the sanitary sewer.

**Water Banking** - The practice of actively storing or exchanging in-lieu surface water supplies in available groundwater basin storage space for later extraction and use by the storing party or for sale or exchange to a third party. Water may be banked as an independent operation or as part of a conjunctive use program.

**Water cycle** - The continuous movement water from the earth's surface to the atmosphere and back again; see Hydrologic cycle.

**Water Pressure** - Pressure created by the weight and elevation of water and/or generated by pumps that deliver water to the tap.

**Water Service Line** - The pipeline that delivers potable water to a residence or business from the District's water system. Typically the water service line is a 1" to 1½" diameter pipe for residential properties.

**Watershed** - A region or land area that contributes to the drainage or catchment area above a specific point on a stream or river.

**Water Table** - The upper surface of the zone of saturation of groundwater in an unconfined aquifer.

**Water Transfer** - A transaction, in which a holder of a water right or entitlement voluntarily sells/exchanges to a willing buyer the right to use all or a portion of the water under that water right or entitlement.

**Water Well** - A hole drilled into the ground to tap an underground water aquifer.

**Wetlands** - Lands which are fully saturated or under water at least part of the year, like seasonal vernal pools or swamps.

**Wet Weather Flow** – Dry weather flow combined with stormwater introduced into a combined sewer system, and dry weather flow combined with infiltration/inflow into a separate sewer system.







## COMMONLY USED ABBREVIATIONS

<b>AQMD</b>	Air Quality Management District
<b>BOD</b>	Biochemical Oxygen Demand
<b>CARB</b>	California Air Resources Board
<b>CCTV</b>	Closed Circuit Television
<b>CWA</b>	Clean Water Act
<b>EIR</b>	Environmental Impact Report
<b>EPA</b>	U.S. Environmental Protection Agency
<b>FOG</b>	Fats, Oils, and Grease
<b>GPD</b>	Gallons per day
<b>MGD</b>	Million gallons per day
<b>O &amp; M</b>	Operations and Maintenance
<b>OSHA</b>	Occupational Safety and Health Administration
<b>POTW</b>	Publicly Owned Treatment Works
<b>PPM</b>	Parts per million
<b>RWQCB</b>	Regional Water Quality Control Board
<b>SARI</b>	Santa Ana River Inceptor
<b>SAWPA</b>	Santa Ana Watershed Project Authority
<b>SBVMWD</b>	San Bernardino Valley Municipal Water District
<b>SCADA</b>	Supervisory Control and Data Acquisition system
<b>SSMP</b>	Sanitary Sewer Management Plan
<b>SSO</b>	Sanitary Sewer Overflow
<b>SWRCB</b>	State Water Resources Control Board
<b>TDS</b>	Total Dissolved Solids
<b>TMDL</b>	Total Maximum Daily Load
<b>TSS</b>	Total Suspended Solids
<b>WDR</b>	Waste Discharge Requirements
<b>YVWD</b>	Yucaipa Valley Water District