

**BOARD MEETING AGENDA  
REGULAR MEETING OF THE BOARD OF DIRECTORS OF  
CITRUS HEIGHTS WATER DISTRICT  
DECEMBER 13, 2016 beginning at 6:30 PM**

**DISTRICT ADMINISTRATIVE OFFICE  
6230 SYLVAN ROAD, CITRUS HEIGHTS, CA**



**CITRUS  
HEIGHTS  
WATER  
DISTRICT**

6230 Sylvan Road  
P.O. Box 286  
Citrus Heights  
California  
95611-0286

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916/ 725-6873

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website  
www.chwd.org

In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Management Services Supervisor/Chief Board Clerk at (916) 725-6873. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

**CALL TO ORDER:**

Upon request, agenda items may be moved to accommodate those in attendance wishing to address that item. Please inform the Management Services Supervisor/Chief Board Clerk.

**ROLL CALL OF DIRECTORS:**

**PLEDGE OF ALLEGIENCE:**

**VISITORS:**

**PUBLIC COMMENT:**

The Public shall have the opportunity to directly address the Board on any item of interest to the public before or during the Board's consideration of that item pursuant to Government Code Section 54954.3. Public comment on items of interest within the jurisdiction of the Board is welcome. The Presiding Officer will limit comments to three (3) minutes per speaker.

(A) Action Item    (D) Discussion Item    (I) Information Item

**CONSENT CALENDAR: (A)**

All items under the Consent Calendar are considered to be routine and will be approved by one motion. There will be no separate discussion of these items unless a member of the Board, Audience, or Staff request a specific item be removed for separate discussion/action before the motion to approve the Consent Calendar.

- CC-1. Minutes of the Regular Meeting – November 13, 2016.
- CC-1a. Special Meeting Minutes – November 15, 2016.
- CC-2. Revenue Analysis Report for November 2016.
- CC-3. Assessor/Collector's Roll Adjustment for November 2016.
- CC-4. Treasurer's Report for November 2016.
- CC-5. Treasurer's Report of Fund Balances for November.
- CC-6. Operations Budget Analysis for November 2016.
- CC-7. Capital Projects Summary November 2016.
- CC-8. Warrants for November 2016.
- CC-9. CAL-Card Distributions for November 2016.
- CC-10. Summary of 2016 Employees, Officers and Directors Training Courses, Seminars and Conference.
- CC-11. Training/Continued Education/Meetings.

*Board of Directors*  
**Allen B. Dains**  
**Caryl F. Sheehan**  
**Raymond A. Riehle**

*General Manager/  
Secretary*  
**Robert A. Churchill**

*Assistant General  
Manager/Treasurer*  
**Hilary M. Straus**

*Accounting Supervisor  
Assessor/Collector*  
**Susan K. Sohal**

- CC-12. Water Efficiency Program Update.  
Water Efficiency Program updates for October 2016.
- CC-13. Policy Updates.  
Consider approving amendments to the following District Human Resources Policies:  
Policy 4211 – Dental Insurance  
Policy 4212 – Vision Insurance  
Policy 4220 – Life Insurance and Accidental Death and Dismemberment Insurance  
Policy 4610 – Performance Evaluation
- CC-14. Insurance Policy Renewal.  
Consider approving the renewal of the District’s dental insurance for employees.
- CC-15. Government Accounting Standards Board (GASB) 45, Other Post-Employment Benefits (OPEB) Actuarial Analysis (I)  
Review a report presenting an actuarial valuation of the District’s Post-Employment Benefits Other than Pensions.

**PRESENTATIONS:**

**OLD BUSINESS:**

- O-1. Sunrise Streetscape Valve Box Raising Acceptance (A)  
Consider Acceptance of the Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting Project (2015-35), and authorize execution and recording of a Notice of Completion for the Project.
- O-2. Limerick Acceptance (A)  
Consider Acceptance of the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project (2016-33), and authorize execution and recording of a Notice of Completion for the Project.

**NEW BUSINESS:**

- N-1. Selection of President and Vice President (A)  
Consider selection of President and Vice President of the Board of Directors.
- N-2. Hydraulic Model Update Project (A)  
Consider authorization of a Professional Services Agreement (PSA) with West Yost Associates to provide engineering services for the Hydraulic Model Update Project.
- N-3. State Water Board – Conservation Regulation Updates (D/A)  
Discussion and Possible Action concerning the State’s Proposed Conservation Regulations Pertaining to Executive Order B-37-16.
- N-4. Cost of Living Increase (COLA)  
Consider amending District Policy No. 4101.A1 to include a Cost-of-Living Adjustment to the District’s Salary Schedule effective January 01, 2017; Consider amending District Policy No. 4831, Insurance Benefits for Retirees Retiring After March 19, 1996 for consistency with the amended Salary Schedule and other proposed revisions; and Provide

direction to staff regarding a Cost-of-Living Adjustment for Compensation of the Board of Directors.

N-5. Other Compensation Policy Amendments (A)

Consider approving an amendment to the following District Human Resources Policy: Policy 4101.A2.01 – Other Compensation.

**CONSULTANTS' AND LEGAL COUNSEL'S REPORTS (I):**

**PROJECT MANAGER'S REPORTS (I):**

- PM-1. Accepted Water Systems.
- PM-2. Projects Under Construction by Private Developers.
- PM-3. Contractor / Developer Projects Pending Construction.
- PM-4. Proposed District Capital Improvement Projects.
- PM-5. Projects Contracted by Citrus Heights Water District.
- PM-6. City of Citrus Heights Projects.

**OPERATIONS MANAGER'S REPORTS (I):**

- OM-1. Monthly report on construction and maintenance activities plus water analysis reports.
- OM-2. 2016 Water Supply – Purchased and Produced.
- OM-3. Surface Water Supply.

**RECESS:** The Meeting will have a brief recess.

**DIRECTOR'S AND REPRESENTATIVE'S REPORTS (I):**

- D-1. Regional Water Authority (Dains).
- D-2. Sacramento Groundwater Authority (Sheehan).
- D-3. San Juan Water District.
- D-4. Association of California Water Agencies (Dains).
- D-5. ACWA Joint Powers Insurance Authority.
- D-6. Sacramento Local Agency Formation Commission.
- D-7. City of Citrus Heights.
- D-8. Chamber of Commerce Government Issues Committee (Gordon).
- D-9. Other Reports:

**MANAGEMENT SERVICES REPORTS (I):**

- MS-1. Employee Recognition.
- MS-2. Long Range Board Agenda.
- MS-3. JPIA President's Special Recognition Award.
- MS-4. General Manager Update - 2016 Fall ACWA Conference.

**CORRESPONDENCE:**

None

**CLOSED SESSION:**

- CL-1. Government Code Section 54956.9: Anticipated Litigation; Title: Significant Exposure to Litigation.
- CL-2. Government Code Section 54957: Public Employee Appointment; Title: General Counsel.

**FUTURE CHWD BOARD OF DIRECTORS MEETING DATES:**

January 10, 2017      6:30 PM      Regular Meeting

February 14, 2017	6:30 PM	Regular Meeting
March 14, 2017	6:30 PM	Regular Meeting

**ADJOURNMENT:**

**CERTIFICATION:**

I do hereby declare and certify that this agenda for this Regular Meeting of the Board of Directors of the Citrus Heights Water District was posted in a location accessible to the public at the District Administrative Office Building, 6230 Sylvan Road, Citrus Heights, CA 95610 at least 72 hours prior to the regular meeting in accordance with Government Code Section 54954.2.

  
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LISA SMOOT, Chief Board Clerk

Dated: December 8, 2016

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CITRUS HEIGHTS WATER DISTRICT  
BOARD OF DIRECTORS REGULAR MEETING  
November 8, 2016

The Regular Meeting of the Board of Directors was called to order at 6:32 p.m. by President Dains and roll was called. Present were:

Allen B. Dains, President  
Caryl F. Sheehan, Vice President  
Raymond A. Riehle, Director  
Robert A. Churchill, General Manager  
Hilary M. Straus, Assistant General Manager  
Paul A. Dietrich, Project Manager  
David M. Gordon, Operations Manager  
Susan K. Sohal, Accounting Supervisor  
Lisa A. Smoot, Management Services Supervisor/Chief Board Clerk  
Rex W. Meurer, Water Efficiency Supervisor  
Missy A. Pieri, Principal Engineer

**VISITORS:**

Mitch Dion

**PLEDGE OF ALLEGIANCE:**

Director Dains led the Pledge of Allegiance.

**PUBLIC COMMENT:**

None.

**CONSENT CALENDAR:**

President Dains asked for consideration and/or approval of the Consent Calendar consisting of the following action or information items:

Minutes of the Regular Meeting – October 13, 2016.  
Minutes of the Special Meeting – October 19, 2016.  
Revenue Analysis Report for October 2016.  
Assessor/Collector's Roll Adjustment for October 2016.  
Treasurer's Report for October 2016.  
Treasurer's Report of Fund Balances for October 2016.  
Operations Budget Analysis for October 2016.  
Capital Improvements Budget Analysis for October 2016.  
Payables for October 2016.  
CAL–Card Purchases for October 2016.

Summary of 2016 Directors, Officers and Employees Training, Seminars and Conference Expenses.

Amendments to Policy No. 6700 - Fixed Assets Accounting Control

Accounting Supervisor Sohal requested the Board amend Fiscal Management Policy 6700 – Fixed Assets Accounting Control, revising the method of determining useful life, the method of valuing donated assets, and raising capitalization thresholds.

Citrus Heights Memory Care Easement Acceptance

Project Manager Dietrich requested the Board adopt Resolution 28-2016 accepting an easement from Citrus Heights Memory Care, LLC.

CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 28-2016

RESOLUTION OF THE BOARD OF DIRECTORS  
OF CITRUS HEIGHTS WATER DISTRICT  
ACCEPTING AN EASEMENT FROM  
CITRUS HEIGHTS MEMORY CARE, LLC  
FOR WATER DISTRIBUTION FACILITIES WITHIN  
6825 SUNRISE BOULEVARD

Whereas CITRUS HEIGHTS MEMORY CARE, LLC, an Oregon Limited Liability Company, for a valuable consideration, receipt of which is hereby acknowledged, does hereby grant to CITRUS HEIGHTS WATER DISTRICT, a political subdivision of the State of California formed pursuant to Division 11 of the Water Code, a right-of-way and non-exclusive easement to construct, reconstruct, operate, maintain and/or repair water pipelines together with any and all appurtenances appertaining thereto; together with the perpetual right of ingress thereto and egress there from for the purpose of exercising and performing all of the rights and privileges granted herein; said pipelines and appurtenances to be of such size(s) and character as the grantee may determine, on, over, across and under all that certain real property, situate in the County of Sacramento, State of California, City of Citrus Heights particularly described as follows:

A portion of Lot 5, as said Lot is shown on the plat of "Alice Adams Tract", according to the official plat thereof, filed for record in the Office of the Recorder of Sacramento County, California, in Book 35 of Maps, Map No. 32, and being further described as follows:

Beginning at a point located on the west line of that certain Public Utilities and Pedestrian Easement filed for record in the Office of the said Recorder in Book 20151014 of Official Records, at Page 0821, from which the northeast corner of said Lot 5 bears the following two (2) courses: (1) North 00° 46' 29" East 118.97 feet and (2) North 89° 49' 25" East 12.50 feet; thence from said Point of Beginning along the west line of said Public Utilities and Pedestrian Easement South 00° 46' 29" West 16.00 feet; thence North 89° 13' 31" West 11.00 feet; thence North 00° 46' 29" East 16.00 feet; thence South 89° 13' 31" East 11.00 feet to the Point of Beginning.

NOW THEREFORE, BE IT RESOLVED that CITRUS HEIGHTS WATER DISTRICT accepts said Grant of Easement and conveyance and that a certified copy of this Resolution be provided to the

County of Sacramento to be attached to and recorded with said Grant of Easement in the Office of the County Recorder of Sacramento County.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 8<sup>th</sup> day of November 2016 by the following vote, to wit:

AYES: Directors: Dains, Sheehan, Riehle  
NOES: Directors:  
ABSTAIN: Directors:  
ABSENT: Directors:

SEAL

\_\_\_\_\_  
ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

\_\_\_\_\_  
ROBERT A. CHURCHILL, Secretary  
Citrus Heights Water District

Water Efficiency Program Update

Water Efficiency Program updates for October 2016:

- 22 ultra-low-flush toilet (ULFT) rebates were processed for the month of October. A total of 169 ULFT rebates have been processed for a total of \$12,675.00 year to date.
- For the month of October, 0 High Efficiency Clothes Washer (HECW) rebates were processed. Year-to-date, 11 HECW rebates were processed by SMUD for District customers.
- 90 water waste calls were received during the month of October. 4 reports of water waste were received through the CHWD's Drought Resources web page. An additional 11 service requests were generated in-house by staff. A total of 80 contacts (mostly visits to customers' homes and phone calls) have been completed based on these reports.
- The following table summarizes the R-GPCD values for CHWD to date:

Month	R-GPCD 2015	R-GPCD 2016
January	75	80
February	83	77
March	108	77
April	117	107
May	129	155

Month	R-GPCD 2015	R-GPCD 2016
June	163	213
July	176	237
August	172	242
September	160	189
October	140	Not Available
November	82	
December	75	

ACTION: Director Sheehan moved and Director Riehle seconded a motion to accept the Consent Calendar.

The motion carried 3-0 with all Directors voting yes.

**PRESENTATIONS:**

MSS Smoot requested the Board consider adoption and presentation of Resolution 27-2016 commending retiring General Manager Robert A. Churchill for 40+ years of service to the District.

**CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 27-2016  
RESOLUTION OF THE BOARD OF DIRECTORS  
OF CITRUS HEIGHTS WATER DISTRICT  
COMMENDING ROBERT A. CHURCHILL FOR OUTSTANDING SERVICE**

WHEREAS, Robert A. Churchill began his career with Citrus Heights Water District as the Engineer on May 6, 1976; and

WHEREAS, Robert A. Churchill was appointed to serve as the District's Assistant General Manager on May 1, 1981, was further appointed to serve as the District's Interim General Manager on September 1, 1986 and named General Manager on March 1, 1987; and

WHEREAS, Robert A. Churchill has been an outstanding leader of the District in managing the construction of many miles of pipelines, leading a collaborative effort to construct the Cooperative Transmission Pipeline that provides redundancy in water delivery, installation of six groundwater wells to provide alternative water supply resources in times of need, fulfilling the federal mandate to install water meters, implementing technologies to meet customer and staff needs and expectations, and planning the efficient delivery of services while preparing for the future; and

WHEREAS, Robert A. Churchill has been an exemplary representative of the District in providing valuable and respected leadership in numerous District, regional and statewide organizations, having achieved Life Member status in both the American Society of Civil Engineers and the American Water Works Association. Honors include being selected and serving as President of the Sacramento Area Water Works Association (1989), President of the Citrus Heights Rotary Club (2002-2003) and Chair of the Regional Water Authority (2004); and



WHEREAS, Robert A. Churchill's personal work ethic and dedication to fulfilling the mission of the District has earned him the respect of Directors, co-workers, and customers of the District, and the high regard from elected officials, public agency peers and private consultants that he has interacted with throughout his career with the District; and

WHEREAS, Robert A. Churchill is retiring from Citrus Heights Water District on November 17, 2016 with more than forty years of dedicated service.

THEREFORE BE IT RESOLVED that the Board of Directors of the Citrus Heights Water District does hereby commend Robert A. Churchill for his dedication and outstanding service to the Citrus Heights Water District and extends best wishes for many years filled with happiness and good health during his retirement.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 8<sup>th</sup> day of November, 2016 by the following vote, to-wit:

AYES:	Directors:	Dains, Riehle, Sheehan
NOES:	Directors:	None
ABSTAIN:	Directors:	None
ABSENT:	Directors:	None

\_\_\_\_\_  
ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

SEAL

\_\_\_\_\_  
Lisa A. Smoot, Chief Board Clerk

ACTION: Director Sheehan moved and Director Riehle seconded a motion to adopt Resolution 27-2016 commending retiring General Manager Robert A. Churchill for 40+ years of service to the District.

The motion carried 3-0 with all Directors voting yes.

**OLD BUSINESS:**

**Amendments to Policy No. 4101.A1 - Salary Schedule**

MSS Smoot requested the Board consider amendments to Human Resources Policy 4101.A1, Salary Schedule. This item is administrative in nature and implements previously established Board policy and action. At the September 13, 2016 Board Meeting, Human Resources Policy number 4101.A1 Compensation/Salary Schedule, was adopted to implement new salary ranges based on the District's Compensation Study and to implement CHWD's Career Ladder/Employee Recruitment/Employee Retention initiative. Upon further review, staff has identified three out of the thirty-two (32) budgeted positions whereby the salary ranges require further adjustments to ensure compliance with CalPERS reporting requirements in some cases. Range adjustments are required due several factors

including: 1) an adjustment to reflect an internal relationship; 2) conversion of a previously designated Fair Labor Standards Act (FLSA) non-exempt position (overtime required) to an Exempt position (no overtime); 3) execution of an Employment Agreement.

Further, an additional “rung” is recommended to be added below the Associate Civil Engineering classification/rung in the Engineering professional series/ladder.

ACTION: Director Riehle moved and Director Sheehan seconded a motion to:  
Amend Human Resources Policy Number 4101.A1 - Compensation/Salary Schedule updating the salary ranges for the Project Manager position, the Accounting Supervisor position and the Water Resources Supervisor/Chief Operator position, and adding an entry-level position of Assistant Civil Engineer.

The motion carried 3-0 with all Directors voting yes.

**NEW BUSINESS:**

Training/Continued Education/Meetings

No new business.

Appoint 2016-2017 Representatives and Alternates

MSS Smoot requested the Board consider appointments of member of the Board of Directors or Officers to serve as District representatives to various organizations.

	<u>Representative</u>	<u>Alternate Rep.</u>
Association of California Water Agencies Joint Powers Insurance Authority (ACWA/JPIA)	Dains	Riehle
Association of California Water Agencies Joint Powers Insurance Authority Health Benefits Authority (ACWA/JPIA HBA)	Smoot	Straus
Association of California Water Agencies (ACWA) Region 4	Straus	Dains
Citrus Heights Regional Chamber of Commerce Government Issues Committee	Gordon	Sohal
Regional Water Authority (RWA)                      Director Staff	Dains Straus	Riehle Gordon
Sacramento Groundwater Authority (SGA)* *Changes must be confirmed by City of Citrus Heights	Sheehan	Dains
Sacramento Water Forum	Gordon	Sohal

ACTION: Director Riehle moved and Director Sheehan seconded a motion to:  
Appoint members of the Board of Directors or Officers to serve as District  
Representatives to various organizations.

The motion carried 3-0 with all Directors voting yes.

Appoint District Officers

MSS Smoot requested the Board consider appointment and reconfirmations of District  
Officers as follows:

Assessor/Collector:

Officer, Alberto Preciado, Deputy Officer, Dana R. Mellado

Treasurer:

Officer, Susan K. Sohal, Deputy Officer, Alberto Preciado

Secretary:

Officer, Hilary M. Straus, Deputy Officer, Lisa A. Smoot

ACTION: Director Sheehan moved and Director Riehle seconded a motion to:  
To appoint and/or reconfirm the District Officers.

The motion carried 3-0 with all Directors voting yes.

Interconnections with City of Roseville

GM Churchill requested the Board consider adoption of Resolution 29-2016, Approving an  
Interconnection Agreement between Citrus Heights Water District and the City of Roseville.  
Consider expenditure approval of construction costs. In late June of 2010, Citrus Heights  
Water District (CHWD) representatives initiated discussion with representatives of the City of  
Roseville (RV) to identify opportunities for conveying water between the agencies as could be  
needed during planned outages or in emergency situations. The primary source of water for  
both CHWD and RV is surface water from Folsom Reservoir. Surface water supplied to  
CHWD is treated by San Juan Water District while RV operates its own treatment plant. An  
important piece of this effort is the development of an Interconnection Agreement between the  
District and the City of Roseville to memorialize the relationship between the agencies to  
coordinate the design, construction, operation and maintenance of the interconnection  
facilities, and to define financial responsibilities.

1. CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 29-2016

RESOLUTION OF THE BOARD OF DIRECTORS  
APPROVING  
AN INTERCONNECTION AGREEMENT WITH THE CITY OF ROSEVILLE

WHEREAS, interconnecting water systems provide emergency and backup water supplies for water  
supply and water quality reliabilities; and

WHEREAS, the District and the City of Roseville currently do not have an agreement relating to interconnecting their water systems, maintenance and operation of the interconnections, and the costs of the water supply; and

WHEREAS, the District and the City of Roseville currently have two existing water system interconnections in Roseville: (1) Orlando Avenue east of Louis Lane, and (2) Blossom Hill Way south of Sandringham Way; and

WHEREAS, the District the City of Roseville have identified two additional locations at the border between the District and Roseville to construct future interconnections: (1) Crestmont Avenue south of Vista Creek Drive and (2) Fair Way south of Kensington Drive; and

WHEREAS, through an Agreement, the District and the City of Roseville intend to memorialize in writing the understanding of the present relationship of the District and the City of Roseville, to coordinate their efforts in design, construction, operation, and maintenance of such interconnection facilities, and to allocate costs to be expended in administering the efforts of the District and the City of Roseville.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District that an Interconnection Agreement between the Citrus Heights Water District and the City of Roseville is hereby approved.

BE IT FURTHER RESOLVED that the District Secretary/General Manager is authorized to execute said Interconnection Agreement between the Citrus Heights Water District and the City of Roseville.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 8<sup>th</sup> day of November 2016 by the following vote, to wit:

AYES: Directors: Dains, Sheehan, Riehle  
NOES: Directors:  
ABSTAIN: Directors:  
ABSENT: Directors:

SEAL

\_\_\_\_\_  
ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

\_\_\_\_\_  
ROBERT A. CHURCHILL, Secretary

ACTION: Director Sheehan moved and Director Riehle seconded a motion to:  
Adopt Resolution 29-2016 Approving an Interconnection Agreement between Citrus Heights Water District and the City of Roseville, and approve expenditure of construction costs not to exceed the previously approved budget amount of \$72,565.

The motion carried 3-0 with all Directors voting yes.

Amendments to Policy No. 4701 – Safety Officer (A)

MSS Smoot requested the Board consider amendments to Human Resources Policy No. 4701 – Safety Officer. Amend the policy to remove the Assistant General Manager designation. Add additional responsibilities to the Safety Officer position to include Team Lead of the District’s Loss Prevention Program. Due to the increased responsibilities and additional time needed to perform these responsibilities, the designated employee shall receive a 5% Safety Officer Training/Coordinator Premium.

ACTION: Director Sheehan moved and Director Riehle seconded a motion to:  
Amend Policy Number 4701- Safety Officer as presented.

The motion carried 3-0 with all Directors voting yes.

San Juan Water District General Manager Retirement (A)

GM Churchill requested the Board consider adoption of Resolution No. 30-2016, Commending Shauna Lorange for Outstanding Service to San Juan Water District.

CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 30-2016

RESOLUTION OF THE BOARD OF DIRECTORS  
OF CITRUS HEIGHTS WATER DISTRICT  
COMMENDING SHAUNA LORANCE

WHEREAS, Shauna Lorange began her employment with San Juan Water District as its Assistant General Manager on March 16, 1996; and

WHEREAS, Shauna Lorange was selected to serve as San Juan Water District’s General Manager and assumed those duties on December 22, 2003; and

WHEREAS, Shauna Lorange has represented the water supply interests and needs of Citrus Heights Water District at the regional, State and Federal level with distinction for over 20 years, and

WHEREAS, Shauna Lorange will be retiring from an exemplary career at San Juan Water District on December 14, 2016.

NOW, THEREFORE, BE IT RESOLVED that on the occasion of her retirement, the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT expresses its thanks and appreciation to Shauna for her service to the water users in Citrus Heights Water District and extends its best wishes to Shauna and her family for a fulfilling retirement.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 8th day of November, 2016 by the following vote, to-wit:

AYES:           Directors:       Dains, Sheehan

NOES: Directors: Riehle  
ABSTAIN: Directors: None  
ABSENT: Directors: None

SEAL

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

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ROBERT A. CHURCHILL, Secretary

ACTION: Director Sheehan moved and Director Dains seconded a motion to:  
Adopt Resolution No. 30-2016 Commending Shauna Lorange for Outstanding  
Service to San Juan Water District.

The motion carried 2-1 with Director Dains and Director Sheehan voting yes, and  
Director Riehle voting No.

**PROJECT MANAGER'S REPORT:**

Project Manager Dietrich presented a report on the following activities during the month of October 2016 by the Project Management and Engineering Department. *New values or projects noted in bold italics*

ACCEPTED WATER SYSTEMS

Recent additions to the District's water distribution system that were constructed by independent State Licensed contractors on behalf of private developers / owners, inspected by the District and formally accepted:

<u>Project</u>	<u>Count</u>	<u>Facilities</u>	<u>Value</u>
<i>Citrus Heights Memory Care</i>	<i>76 l.f.</i>	<i>8-Inch DIP Water Main</i>	<i>\$24,550.00</i>
<i>6825 Sunrise Blvd (2015-56)</i>	<i>5 l.f.</i>	<i>6-Inch DIP Water Main</i>	
	<i>3</i>	<i>8-Inch Gate Valve</i>	
	<i>2</i>	<i>6-Inch Gate Valve</i>	
	<i>1</i>	<i>8-Inch Post Indicator Valve</i>	
	<i>2</i>	<i>Steamer Fire Hydrant</i>	
	<i>1</i>	<i>1 1/2-Inch Metered Water Service</i>	
	<i>1</i>	<i>1-Inch Metered Irrigation Service</i>	

<u>Project</u>	<u>Count</u>	<u>Facilities</u>	<u>Value</u>
<b>McDonalds</b> <b>5402 Sunrise Blvd</b> <b>(2015-60)</b>	<b>3 l.f.</b>	<b>8-Inch DIP Water Main</b>	<b>\$5,350.00</b>
	<b>1</b>	<b>6-Inch Post Indicator Valve</b>	
	<b>1</b>	<b>1½-Inch Water Service</b>	
	<b>1</b>	<b>1-Inch Metered Irrigation Service</b>	

**PROJECTS UNDER CONSTRUCTION BY PRIVATE DEVELOPERS**

Water distribution system facilities currently under construction by independent State Licensed contractors on behalf of private developers / owners requiring District inspection:

<u>Project</u>	<u>Location</u>	<u>Status</u>
Northridge Grove 47 Condominiums (2013-59)	5555 Mariposa Ave	<b>85% Complete</b>
Citrus Heights City Hall (2015-54)	6350 Fountain Square Dr	<b>Substantially Complete</b>
Sunrise Mall Parking Lot (2016-50)	6198 Sunrise Blvd	<b>80% Complete</b>
<b>Bearpaw Expansion</b> <b>Commercial Building</b> <b>(2015-59)</b>	<b>7524 Old Auburn Rd</b>	<b>50% Complete</b>

**CONTRACTOR / DEVELOPER PROJECTS PENDING CONSTRUCTION**

<u>Project</u>	<u>Location</u>	<u>Status</u>
Louis-Orlando Bus Transfer Point (2015-66)	Louis Ln @ Orlando Ave	Plans Signed 2/4/16
Meier Estates 7 Lot Subdivision (2015-68)	North Sims Way	Plans Signed 5/23/16
Dignity Health Building (2015-55)	7115 Greenback Ln	Plans Signed 6/8/16
Commercial Building Remodel (2016-51)	5414-50 Sunrise Blvd	Plans Signed 10/4/16

**PROPOSED DISTRICT CAPITAL IMPROVEMENT PROJECTS**

Project Plans and Contracts currently under review and development by the Engineering Department:

<u>Project</u>	<u>Location</u>	<u>Status</u>
Fair Way Intertie with City of Roseville (2011-01)	9955 Fair Way	Agreement – 99% Plans – 100% Cost Estimate – 100%
Blossom Hill Dr Intertie with City of Roseville (2012-09)	Blossom Hill Dr at 1100 Main Sail Cir	Agreement – 99% Plans – 100% Cost Estimate – 100%
Crestmont Ave Intertie with City of Roseville (2012-10)	Crestmont Ave at 8199 Bonnie Oak Way	Agreement – 99% Plans – 100% Cost Estimate – 100%
Corporation Yard Improvements Phase 1 Domenichelli and Associates, Inc. (2015-02)	6230 Sylvan Road	<b><i>Awaiting Technical Memorandum</i></b>
Highland Ave & Rosa Vista Ln 8” Water Mains Warren Consulting Engineers (2015-33)	Highland Ave at Rosa Vista Ln	<b><i>Reviewing 30% Submittal</i></b>

**PROJECTS CONTRACTED BY CITRUS HEIGHTS WATER DISTRICT**

Capital Improvement Projects currently under construction by Citrus Heights Water District contractors requiring coordination and inspection by the District:

*None*

**CITY OF CITRUS HEIGHTS PROJECTS**

City of Citrus Heights Projects requiring coordination and inspection by the District:

*None*

**OPERATIONS MANAGER’S REPORT:**

Operations Manager Gordon reported as follows:

A total of 182 work orders were performed during the month of October by field operations crews, administration field crews and contractors. The results of recent bacteriological testing, a total of 72 samples, have met all California Department of Drinking Water (DDW) requirements.

The District’s total water use during the month of October 2016 (840.80 acre-feet) was 35.2% below that of October 2013 (1,297.42 acre-feet).

As of midnight on November 1, 2016, storage in Folsom Reservoir was at 361,431 acre-feet, 37



percent of the total capacity of 977,000 acre-feet. This is about 73 percent of historical average for this date. This represents a decrease in storage of 58,049 acre-feet in the past month.

CHWD continues to assist with preserving surface water supplies in the Lake by operating its groundwater wells. All District wells (Bonita, Mitchell Farms, Palm, Skycrest, Sylvan and Sunrise) remain operational and are being operated on a rotational, or as-needed, basis.

Director Dains called for a short recess at 7:37 PM.

Project Manager Dietrich, Operations Manager Gordon and Principal Engineer Pieri left the meeting.

Director Dains reconvened the meeting at 7:39 PM.

### **DIRECTOR'S AND REPRESENTATIVES REPORTS:**

Regional Water Authority (Dains, Churchill)

No Report.

Sacramento Groundwater Authority (Sheehan)

Director Dains gave a report.

San Juan Water District

No Report.

ACWA Joint Powers Insurance Authority (Churchill)

No report.

Sacramento Local Agency Formation Commission

No Report.

City of Citrus Heights

GM Churchill gave a report.

Chamber of Commerce Government Issues Committee (Straus)

No Report.

Other Reports:

No report.

### **MANAGEMENT SERVICES REPORT:**

Management Services Supervisor Smoot reported as follows:

- Twenty four employees received recognition for superior attendance, outstanding customer service and quality of work during the month of September 2016. Directors were provided with a list of the employees and items for which each received recognition.
- Long Range Board Agenda was provided showing Directors upcoming items for future scheduled Board Meetings.

### **GENERAL MANAGER'S REPORT:**

GM Churchill provided the following:

- General Managers Task List noting future items to be assigned.
- Top 20 Business Nomination for CHWD
- Copy of the CHWD History "Early Years"
- Copy of the RWA/SGA Holiday Social Invitation
- Copy of the ACWA News regarding GM Retirement

**CORRESPONDENCE:**

None

**CLOSED SESSION:**

No closed session was held.

**FUTURE CHWD BOARD OF DIRECTORS MEETING DATES:**

Dates and locations of upcoming Regular Meetings of the Board of Directors were noted for the calendar.

**ADJOURNMENT:**

There being no other business to come before the Board, the meeting was adjourned at 8:10 PM.

APPROVED:

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HILARY M. STRAUS  
Secretary  
Citrus Heights Water District

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

CITRUS HEIGHTS WATER DISTRICT  
BOARD OF DIRECTORS SPECIAL MEETING  
NOVEMBER 15, 2016

The Special Meeting of the Board of Directors was called to order at 6:31pm by President Al Dains and roll was called. Present were:

Allen Dains, President  
Caryl Sheehan, Director  
Ray Riehle, Director  
Robert Churchill, General Manager  
Hilary Straus, Assistant General Manager  
David Gordon, Operations Manager  
Paul Dietrich, Project Manager  
Susan Sohal, Accounting Supervisor  
Missy Pieri, Principal Civil Engineer/District Engineer  
Nick Spiers, Assistant Water Distribution Supervisor  
John Spinella, Senior Construction Inspector  
Dana Mellado, Management Services Specialist  
Desiree Smith, Customer Service Representative  
Brady Chambers, Customer Service Technician

VISITORS

The following visitors were present:

Larry Wright  
Steve Bogdanoff  
Elizabeth Rios  
Luke Otterstad, Citrus Heights Sentinel

PUBLIC HEARING

Operating and Capital Improvement Budget

Assistant General Manager Straus, Accounting Supervisor Sohal, Project Manager Dietrich, Operations Manager Gordon and Principal Civil Engineer/District Engineer Pieri presented the proposed Operating and Capital Improvement Budgets for 2017. Accompanying their report was proposed resolution, Resolution 31-2016, establishing the Fiscal Year 2017 Operating and Capital Improvement Budgets. The resolution included a summary of these budgets in the following amounts:

2017 Operating Budget:	\$ 9,959,150
2017 Capital Improvement appropriations:	
New Capital Projects Request for 2017:	\$ 9,144,361
Previously-Approved Projects Carried Over from 2016:	<u>\$ 3,209,864</u>

Total 2017 Capital Improvements Requests: \$12,354,225

Budget information and rate options were reviewed by the Board of Directors at three public meetings, including at an August 29, 2016 Budget Study Session, a September 13, 2016 Board meeting and this Public Hearing on November 15, 2016. Moreover, 2017 budget and operational information and a proposed rate program has been presented to eleven neighborhood associations throughout Citrus Heights and Orangevale and three service clubs within Citrus Heights.

#### 2017 Operating Budget

The 2017 Operating Budget was prepared with the goal of supporting the District's mission of providing a dependable supply of safe, quality water delivered in an efficient, responsive and affordable manner. District staff recommends the proposed 2017 Operating Budget as the proposal achieves a balance between maintaining high-quality water service and keeping costs in check.

The 2017 budget continues the practice of estimating the amount of staff time to be spent working on capital improvement projects and allocating the estimated salary and benefit costs to the Capital Improvement Budget. This allocation gives a more accurate picture of the true cost of both day-to-day operations and capital improvements.

**Operating Budget:** \$9.9 6million, an increase \$877,084 from the 2016 budget.

Highlights of proposed 2017 spending for operations are summarized below.

- Includes \$1.15 million in transfers to the Capital Improvement Reserves, a transfer of \$100,000 to replenish the Rate Stabilization Reserve; \$100,000 to the Water Supply Reserve; \$75,000 to the Water Efficiency Reserve; and, \$300,000 to the Water Meter Replacement Reserve.
- A 19% aggregate increase of treated water cost from San Juan Water District due to projected 16% rate increase and anticipated increase in consumption. The projected quantity of water estimated to be purchased is 12,000 AF, which is greater than the projected 2016 total water purchased.
- Salary COLA increases of 1.7%\* (estimated based on the September 2016 Consumer Price Index - West) and merit increases averaging 3.3% based on employee performance. However, some personnel costs will decrease due to lower salary levels for new employees replacing long-term employees, who were at higher points in their salary ranges.
- Professional Contract Services increase of about \$200,000 for use towards the Project 2030 Study as we move forward to plan our mains replacements beyond 2030. Additionally up to \$150,000 is allocated for advanced planning for a District wide meter replacement program

- Employee benefit net cost increase of about \$170,000. A number of factors contribute to the overall decrease, including new employees whose CalPERS contribution rates are lower, lower total Healthcare premiums as a result of new employees replacing long-term employees who were at higher premium points; an increase of 10% in Healthcare premium costs; an increase in PERs UAL (Unfunded Actuarial Liability) payment of \$360,000 as recommended by CalPERS. \$550,000 is budgeted in salary and benefit costs are allocated to the Capital Improvement Budget to account for time spent in the planning, design and construction of capital projects by District employees.

### **2017 Capital Projects Budget**

New Capital Projects Request for 2017:	\$ 9,144,361
Previously-Approved Projects Carried Over from 2016:	<u>\$ 3,209,864</u>
Total 2017 Capital Improvements Requests:	\$12,354,225

Highlights of proposed 2017 Capital Projects are summarized below:

- Replacement of annual aging customer water services budgeted at \$888,000.
- Water main replacement or installation projects, scheduled to start design, will be undertaken in 2017 with construction targeted for 2018 at a total cost of \$2.85 million.
- Equipment replacements and new equipment totaling \$899,500 for 2017; including carryover amount of Upgrades/Replacements to the District's billing and accounting software \$500,000, and \$250,000 the Document Management System for 2018.
- Additional transfers to CIP Reserves for accrual of funds toward Meter Replacements at the end of their useful life span, projected to start in 2020.

ACTION: Director Riehle moved to Adopt Resolution 31-2016, Establishing the Fiscal Year 2017 Operating and Capital Improvement Budgets. Director Sheehan seconded the motion.

The motion carried 3-0 with all Directors voting yes.

CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 31-2016

RESOLUTION ESTABLISHING  
FISCAL YEAR 2017 OPERATING AND CAPITAL IMPROVEMENT BUDGETS  
FOR CITRUS HEIGHTS WATER DISTRICT

WHEREAS, CITRUS HEIGHTS WATER DISTRICT has identified the costs of operating the District and for providing capital improvements to the infrastructure of the District, for the Fiscal Year beginning January 1, 2017; and

WHEREAS, the District has prepared budgets setting forth the dollar amounts proposed for District operations and capital improvements as follows:

Operating Budget: \$9,959,150      Capital Improvement Budget: \$5,008,685; and

WHEREAS, a noticed Public Hearing was held on November 15, 2016 for the purpose of receiving public comment on the proposed Fiscal Year 2017 Operating and Capital Improvement Budgets.

THEREFORE BE IT RESOLVED the Fiscal Year 2017 Operating (Exhibit A) and Capital Improvement (Exhibit B) Budgets, accompanying this resolution and incorporated herein as part of this Resolution, are hereby adopted.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT, this 15<sup>th</sup> day of November, 2016, by the following vote, to-wit:

AYES:            Directors: Dains, Sheehan, Riehle  
NOES:            Directors: None  
ABSTAIN:        Directors: None  
ABSENT:         Directors: None

S E A L

\_\_\_\_\_  
ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

\_\_\_\_\_  
HILARY M. STRAUS, Secretary

2017 Water Rates and Miscellaneous Charges and Fees

Accounting Supervisor Sohal presented the proposed Water Rates and Miscellaneous Charges and Fees for 2017, except for Capacity Fees that will be considered in a separate Public Hearing following the Public Hearing on water rates. Accompanying this report was a draft resolution adopting water rates, charges and fees for 2017.

Notice of this Public Hearing was mailed to all District property owners on September 26, 2016 as part of the required Proposition 218 notification. Notice was posted on the District's web site, and posted on the public notice board at the entrance to the District Office.

The Board conducted a budget and rate study session on August 29, 2016. At that study session, the Board considered a number of rate options and corresponding operating and capital impacts based upon an assessment of the District's Long-term financial plan (Rate Model). The Board provided additional direction to staff on September 13, 2016 to distribute a Proposition 218 Notice which included the maximum rates that the Board would consider at a public hearing on November 15, 2016.

The maximum rate adjustment to be considered by the Board on November 15<sup>th</sup> is based on a financial assessment whereby future annual increases, including the 2017 rate increase being considered by the Board on November 15<sup>th</sup>, will enable the District to plan for operational budgetary increases and complete needed Capital Improvement projects without the need to incur additional debt in the near future.

As of the date of this report, the District has received 33 written protests from property owners (Attachment 2). Directors have been provided with copies of the written protests along with their agenda packets for this Board meeting. Any additional written protests received before the time of Public Hearing will be presented to Directors at the Public Hearing.

#### 2017 Schedule of Water Rates, Fees and Charges

A schedule comparing current 2016 rates with the proposed 2017 Water Rates, Fees and Charges to be considered by the Board accompanies this report (Attachment 1). Significant elements of the 2017 water rate schedule are as follows:

- Increases to bi-monthly service charges in 2017 for a typical single-family residential customer are \$12.86 (or \$6.43 per month) based on a monthly consumption of 20 units of water. Costs for other customer classifications and meter sizes will increase between \$5.47 and \$61.54 bi-monthly for meter sizes from 1½-inch to 4-inch, respectively.
- Consumption charges are proposed to increase from 87.35 cents to 98.71 cents per 100-cubic-foot-unit of water (748 gallons); a net increase of 11.36 cents per 100-cubic-foot-unit of water.
- Other charges such as Wheeling Water Charges, Construction Meters, and Fire Sprinkler Charges are proposed to increase consistent with the overall rate increase.
- Adjustments to other charges and fees are based on staff analysis of the staff time, equipment, materials and other costs involved in providing the specified services.

Capacity Charges are included on the schedule, but will be considered in a separate Public Hearing at this Board Meeting. The Capacity Charges for new connections to the District have been recalculated in accordance with District policy.

**ACTION:** Director Sheehan moved to Adopt Resolution 32-2016, Establishing Fiscal Year 2017 Water Rates and Miscellaneous Charges and Fees. Director Riehle seconded the motion.

The motion carried 3-0 with all Directors voting yes.

**CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 32-2016**

**RESOLUTION ADOPTING  
WATER RATES AND MISCELLANEOUS CHARGES AND FEES FOR  
CITRUS HEIGHTS WATER DISTRICT FOR 2017**

WHEREAS, upon motion duly moved, seconded, and carried, the following water rates and miscellaneous charges and fees were adopted for the fiscal year 2017:

<u>Type of Charge</u>	<u>Applied Basis or Frequency</u>	<b>2017 Adopted</b>
<b><u>Charges for Metered Rate Customer Accounts</u></b>		
<i>Service Charge, Domestic, Commercial &amp; Irrigation Meters</i>		
¾-inch meter	bi-monthly, per meter	\$47.52
1-inch meter	bi-monthly, per meter	\$72.30
1½-inch meter	bi-monthly, per meter	\$88.82
2-inch meter	bi-monthly, per meter	\$171.41
3-inch meter	bi-monthly, per meter	\$270.54
4-inch meter	bi-monthly, per meter	\$534.89
<i>Service Charge, Combination Meters</i>		
Low flow bypass meter	bi-monthly, per meter	\$0.00
4-inch meter	bi-monthly, per meter	\$171.41
6-inch meter	bi-monthly, per meter	\$270.54
8-inch meter	bi-monthly, per meter	\$534.89
10-inch meter	bi-monthly, per meter	\$1,303.08
<b><u>Public Agencies with Mutual Assistance Agreements (SJUSD, SRPD, SCD) (Multiplier = 0.50)</u></b>		
<i>Service Charge, Domestic, Commercial &amp; Irrigation Meters</i>		
¾-inch meter	bi-monthly, per meter	\$23.75
1-inch meter	bi-monthly, per meter	\$36.15



1½-inch meter	bi-monthly, per meter	\$44.41
2-inch meter	bi-monthly, per meter	\$85.70
3-inch meter	bi-monthly, per meter	\$135.27
4-inch meter	bi-monthly, per meter	\$267.44

*Service Charge, Combination Meters*

Low flow bypass meter	bi-monthly, per meter	\$0.00
4-inch meter	bi-monthly, per meter	\$85.70
6-inch meter	bi-monthly, per meter	\$135.27
8-inch meter	bi-monthly, per meter	\$267.44
10-inch meter	bi-monthly, per meter	\$651.54

**Other Service Charges**

*Service Charge, Construction Meters*

2½-inch and 3-inch meters	bi-monthly, per meter	\$270.54
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<b>Type of Charge</b>	<b>Applied Basis or Frequency</b>	<b>2017 Adopted</b>
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*Service Charge, North Ridge Country Club Meter*

<i>(multiplier = 3.00, not annexed)</i>	bi-monthly, per meter	\$216.89
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*Service Charge, Mount Vernon Memorial Park  
(multiplier = 2.31, based upon property annexed)*

Low flow bypass meter	bi-monthly, per meter	\$0.00
8-inch Combination meter	bi-monthly, per meter	\$1,235.58

Usage Charges for Water Consumed

*1 unit = 100 cubic feet = 748 gallons*

*Domestic, Commercial,  
Irrigation, Combination*

All meter sizes	per unit	\$0.9871
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<i>Construction Meters</i>	per unit, for all units bi-monthly	\$2.9600
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<i>North Ridge Country Club Meter</i>	per unit, for all units bi-monthly	\$2.9600
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<i>Mount Vernon Memorial Park (2.31 multiplier)</i>	per unit, for all units bi-monthly	\$2.2800
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*Unannexed property (surplus water only)*

multiplier times annexed rate,  
applied to service charge and  
commodity charge

Wheeling Water Charge  
(unless otherwise adopted by mutual aid agreement)

per acre-foot to Cal-American WC	\$56.20
per acre-foot to Carmichael WD	\$56.20
per acre-foot to Fair Oaks WD	\$56.20
per acre-foot to Orangevale WD	\$3.83
per acre-foot to City of Roseville	\$56.20
per acre-foot to Sac. Suburban WD	\$56.20
per acre-foot to San Juan WD	\$3.83

Commercial Fire Sprinkler Service Charges

4-inch and smaller	per service, bimonthly	\$75.52
6-inch	per service, bimonthly	\$97.96
6-inch; one-half shared	per service, bimonthly	\$48.98
6-inch; one-third shared	per service, bimonthly	\$32.65
8-inch	per service, bimonthly	\$119.31
8-inch; one-half shared	per service, bimonthly	\$59.65

Type of Charge	Applied Basis or Frequency	2017 Adopted
10-inch	per service, bimonthly	\$160.82
12-inch	per service, bimonthly	\$213.07

Construction Water Charges	minimum charge	\$220.11
Schedule A - Projects	per lot	\$151.35
Schedule B - Trenches, Excavations & Grading	per 100 cubic yards	\$40.87
Schedule C - Tank Trucks	per 1,000 gallons	\$6.78
Schedule D - Metered Use	meter rate	-----
Schedule E - Non-Profit	per day	\$45.98

Plan Check Charges	minimum charge + per connection	\$975.00
	per connection	\$21.24
Easement/Quitclaim	per easement/quitclaim	\$649.00
Inspection Charges		
Minimum	min. + per connect. + per main tie-in	\$1,007.00
Plus per connection	per connection	\$185.32
Plus per main tie-in	per main tie-in	\$1,001.00
AC pipe disposal charge	per foot, 4 feet minimum (\$200 min.)	\$52.00

Hydrostatic pressure test	each	\$273.00
Backflow Prevention Assembly Testing Charge for New Development	per assembly	\$80.00
Bacteriological water test sampling	minimum	\$302.00
Additional Bacteriological water sample	additional samples after minimum	\$75.00
Chlorination & Flushing	per project	\$183.00
Weekend/After Hours	per hour (4 hr. minimum)	\$124.00
Holiday	per hour (4 hr. minimum)	\$157.00

**Water Service Installation Charges**

¾-inch services w/meter	per service	\$4,092.00
1-inch service w/meter	per service	\$4,219.00
1¼-inch & larger service w/meter	actual cost, with minimum charge	\$4,265.00
Service abandonments/relocations	actual cost	
Meter set charge:		
⅝ inch x ¾ inch	per meter	\$416.00
¾ inch	per meter	\$471.00
1 inch	per meter	\$576.00
1½ inch	per meter	\$810.00
2 inch	per meter	\$958.00
>2 inch	actual cost	
Backflow prevention assembly installation charge		
¾ inch	each	\$3,036.00
1 inch	each	\$3,230.00

		<b>2017</b>
<b>Type of Charge</b>	<b>Applied Basis or Frequency</b>	<b>Adopted</b>
1½ inch	each	\$3,750.00
2 inch	each	\$3,980.00
>2 inch	actual cost	

**Other Charges and Fees**

Inclusion / Annexation Fee	per gross acre, ½ acre or greater	\$1,486.00
	minimum to ½ acre	\$743.00
Agenda-By-Mail Charge (e-mail delivery free)	per packet	\$24.00
Agenda-By-Mail Charge (e-mail delivery free)	per year	\$183.00
Standby Service Charge	per hour, 1 hour minimum	\$96.00
Returned Check Fee	per check	\$26.00
Late Payment Penalty	5% of overdue account balance	\$0.05
Turn-off Notice Service Charge	per occurrence	\$23.00

<u>Missed Appointment/No-Show Fee</u>	<u>per occurrence</u>	<u>\$49.00</u>
Disconnect / Reconnect Service Charge	per occurrence	\$98.00
Meter Re-Read / Maintenance Charge	per occurrence	\$41.00
Customer Account Deposit	per account	\$225.00
Construction Meter Deposit	per meter	\$1,770.00
Copy Charge	per page	\$0.10
Backflow Prevention Assembly Testing Charge	per assembly bimonthly	\$12.50
Backflow Prevention Assembly Re-testing Charge	per test	\$78.00
Fire Flow Certification Letter	per letter	\$23.00
Fire Flow Modeling	per modeling	\$333.00
Fire Flow Modeling & Certification Letter	per modeling plus letter	\$355.00
Tamper Charge	per occurrence	\$98.00
Water Conservation Violation Charge (1)	first occurrence	\$50.00
Water Conservation Violation Charge (2)	second occurrence	\$75.00
Water Conservation Violation Charge (3)	third occurrence	\$100.00

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT, this 17th day of November 2015, by the following vote, to-wit:

AYES: Directors: Dains, Sheehan, Riehle  
NOES: Directors: None  
ABSTAIN: Directors: None  
ABSENT: Directors: None

S E A L

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

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HILARY M. STRAUS, Secretary

2017Capacity Charges

Accounting Supervisor Sohal presented the proposed Capacity Charges for 2017. Accompanying this report is a proposed resolution, Resolution 33-2016, adopting Capacity Charges for CHWD for 2017. The resolution includes a schedule of Capacity Charges.

Capacity charges are a method for ensuring that new connections, reconnections or enlarged connections to the District’s water system are assessed for their equitable share of capacity in the existing facilities and assets of the District. The District uses a “System Buy-In Methodology” which recognizes the current value of providing the capacity needed to serve additional users, based on the replacement cost of the assets of the District less depreciation.

Proposed Capacity Charges for 2017 were calculated in accordance with District Policy No. 7500, Capacity Charges. Although these Capacity Charges will be adopted as a separate Board action, once adopted, they will be incorporated in the schedule of CHWD Water Rates and Miscellaneous Charges and Fees for 2017.

**ACTION:** Director Riehle moved to Adopt Resolution 33-2016, Establishing Fiscal Year 2017 Capacity Charges. Director Sheehan seconded the motion.

The motion carried 3-0 with all Directors voting yes.

**CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 33-2016**

**RESOLUTION ADOPTING CAPACITY CHARGES  
FOR CITRUS HEIGHTS WATER DISTRICT FOR 2017**

WHEREAS, upon motion duly moved, seconded, and carried, the following Capacity Charges were adopted for the year 2017:

<u>Type of Charge</u>	<u>Applied Basis or Frequency</u>	<u>2017 Adopted</u>
<b><u>Capacity Fees</u></b>		
Residential- Multi-Family:		
Townhomes/Condos/Duplexes w/¾-inch max.	per service + non-residential uses	\$4,343.00
Townhomes/Condos/Duplexes w/1-inch max.		
Fire Sprinklers w/1-inch max.	per service + non-residential uses	\$6,948.00
Residential- Single Family:		
0 - 2.499 acres with 1-inch max.	per service	\$6,948.00
2.500 - 4.999 acres with 1¼-inch max.	per service	\$7,817.00
5.00 - 7.500 acres with 1½-inch max.	per service	\$8,685.00
Over 7.500 acres with 2-inch max.	per service	\$17,370.00
Nonresidential Users:		
Based on service size, including, but not limited to, commercial, industrial, irrigation, commercial swimming pools, and clubhouse applications:		
⅝ inch	per service	\$2,606.00
¾ inch	per service	\$4,343.00
1 inch	per service	\$6,948.00
1¼ inch	per service	\$7,817.00
1½ inch	per service	\$8,685.00
2 inch	per service	\$17,370.00
3 inch	per service	\$27,792.00

4 inch	per service	\$55,584.00
6 inch	per service	\$217,125.00
8 inch	per service	\$416,880.00
10 inch	per service	\$660,060.00
12 inch	per service	\$868,500.00

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT, this 15th day of November 2016, by the following vote, to-wit:

AYES: Directors: Dains, Sheehan, Riehle  
NOES: Directors: None  
ABSTAIN: Directors: None  
ABSENT: Directors: None

S E A L

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

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HILARY M. STRAUS, Secretary

ADJOURNMENT

There being no other business to come before the Board, the meeting was adjourned at 7:55 pm.

APPROVED:

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HILARY M. STRAUS  
Secretary  
Citrus Heights Water District

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

**CITRUS HEIGHTS WATER DISTRICT  
2016 REVENUE ANALYSIS**

Mo-Yr	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Actual Revenue	Budgeted Revenue	Variance	% Collected
Metered Service Charges	99,738	346,471	750,526	530,498	648,666	801,158	482,374	772,534	518,611	634,396	758,492	6,343,464	7,609,121	1,265,657	83.4%
Metered Water Deliveries	35,969	118,197	180,494	144,723	229,594	387,965	309,781	656,158	468,418	500,222	396,321	3,427,843	4,581,136	1,153,293	74.8%
Penalties	17,458	12,003	15,564	13,906	11,522	11,970	13,995	16,815	13,467	19,852	14,143	160,694	150,000	-10,694	107.1%
Interest		0		0	26	0	0	0	0	0	0	26	0	-26	0.0%
New Acct, Fire & Backflow															
Fees	8,550	12,603	9,758	13,813	7,909	18,395	5,554	16,983	7,405	15,978	10,212	127,162	95,866	-31,296	132.6%
WS Install & S&R	8,360	4,598	6,501	0	11,800	22,769	27,953	11,646	13,844	0	0	107,470	26,626	-80,844	403.6%
Grant Funds		540,000	0	0	60,000	0	715	0	0	0	0	600,715	0	-600,715	0.0%
Misc*	6,052	1,416	15,603	2,318	52,164	71,025	150,147	13,219	18,908	10,826	12,614	354,292	120,510	-233,782	294.0%
Connection Fees	15,037	6,683	6,683	0	0	0	0	0	0	0	0	28,403			
Wheeling Water	2,217	0	0	0	0	0	0	0	0	0	0	2,217	4,429	2,212	50.1%
Reserves				0	0	0	0	0	0	0	0	0	0	0	0.0%
<b>Total</b>	<b>193,380</b>	<b>1,041,971</b>	<b>985,129</b>	<b>705,258</b>	<b>1,021,682</b>	<b>1,313,282</b>	<b>990,518</b>	<b>1,487,356</b>	<b>1,040,654</b>	<b>1,181,274</b>	<b>1,191,782</b>	<b>11,152,287</b>	<b>12,587,688</b>	<b>1,435,401</b>	<b>88.6%</b>

**Outstanding Receivables**

Aged Trial Balance					
Total	Current	31-90	91-150	>150	Unapplied Current
1,203,770	817,286	108,456	201,945	158,545	(82,461)

General Ledger Balance	Total
Outstanding A/R	1,220,132
Outstanding Liens	0
Outstanding Grants	61,247
Less Unapplied Payments	(83,331)
<b>Total</b>	<b>\$ 1,198,048</b>

\* Includes Assessments, Inclusions, Back Charges, Capacity Fees and other Miscellaneous Revenue Sources

<b>Assessor/Collector Roll Adjustment</b>		
<b>November-16</b>		
	<b>Dollar</b>	<b>Count</b>
<b>3-DAY DOOR HANG</b>		
One Time Courtesy	\$ 22.00	1
New Owner	\$ 22.00	1
<b>3-DAY DOOR HANG Total</b>	<b>\$ 44.00</b>	<b>2</b>
<b>DEFAULT</b>		
One Time Courtesy	\$ 209.05	15
New Owner	\$ 4.86	1
<b>DEFAULT Total</b>	<b>\$ 213.91</b>	<b>16</b>
<b>DISCONNECT CHG</b>		
New Owner	\$ 100.00	1
<b>DISCONNECT CHG Total</b>	<b>\$ 100.00</b>	<b>1</b>
<b>METER RED TAG</b>		
One Time Courtesy	\$ 5.00	1
<b>METER RED TAG Total</b>	<b>\$ 5.00</b>	<b>1</b>
<b>Grand Total</b>	<b>\$ 362.91</b>	<b>20</b>



ASSESSOR/COLLECTOR'S ROLL ADJUSTMENTS FOR  
November 30, 2016

Board Of Directors  
Citrus Heights Water District

Pursuant to Policy No. 7315 the following charges have been cancelled.

LID	CID	Charge Type	Date	Reason For Cancellation	Amount
14165	0034267	3-DAY DOOR HANG	11/7/2016	New Owner	22.00
01506	0034011	3-DAY DOOR HANG	11/30/2016	One Time Courtesy	22.00
17446	0033930	DEFAULT	11/2/2016	One Time Courtesy	5.78
04521	0030734	DEFAULT	11/2/2016	One Time Courtesy	5.91
01082	0018884	DEFAULT	11/3/2016	One Time Courtesy	4.29
14965	0013245	DEFAULT	11/7/2016	One Time Courtesy	2.54
01986	0001774	DEFAULT	11/7/2016	One Time Courtesy	18.62
17086	0015070	DEFAULT	11/8/2016	One Time Courtesy	4.47
15961	0014071	DEFAULT	11/9/2016	One Time Courtesy	120.04
09456	0008462	DEFAULT	11/15/2016	New Owner	4.86
13465	0031510	DEFAULT	11/15/2016	One Time Courtesy	4.07
09787	0032299	DEFAULT	11/21/2016	One Time Courtesy	11.02
04210	0034523	DEFAULT	11/21/2016	One Time Courtesy	3.20
00081	0000048	DEFAULT	11/23/2016	One Time Courtesy	10.19
16224	0027507	DEFAULT	11/29/2016	One Time Courtesy	2.25

**TREASURER'S REPORT TO THE BOARD OF DIRECTORS**  
**CITRUS HEIGHTS WATER DISTRICT**  
 Month of November 2016

<b>Bank of the West</b>			
<b>Beginning Balance</b>			\$2,911,360
<b>RECEIPTS:</b>		1,264,865	
<b>DISBURSEMENTS:</b>			
Checks Issued / ACH Payments	1,076,935		
Payroll	348,081		
Returned Checks	790		
		1,425,806	(160,941)
<b>Bank of the West</b>			
<b>Balance per Bank November 30, 2016</b>			2,750,419
Outstanding Checks			(1,076)
Deposit in Transit			20,070
<b>Balance Per Books November 30, 2016</b>			\$2,769,414

<b>RECONCILEMENT:</b>			
Bank of the West			2,769,414
Local Agency Investment Fund			6,069,412
COP Reserve Account			533,738
Money Mkt Activity Account			530,479
<b>TOTAL BALANCE</b>			\$9,903,042

<b>CASH &amp; INVESTMENT SUMMARY:</b>			
Bank of the West (General Account)			\$2,769,414
Local Agency Investment Fund			6,069,412
COP 2010 Reserve Account			533,738
Money Mkt Activity Account			530,479
<b>Total</b>			\$9,903,042

INSTITUTION	MATURITY DATE	INT RATE	DEPOSIT AMOUNT	DATE OF LAST TRANSACTION
Local Agency Investment Fund	Daily	0.15%	9,208.18	10/14/2016

I certify that this report accurately reflects all pooled investments and is in compliance with applicable State of California Government Codes and is in conformity with Investment of District Funds Policy 6300. As Treasurer of the Citrus Heights Water District, I hereby certify that sufficient investment liquidity and anticipated revenue are available to meet the next six months' estimated expenditures.

  
 \_\_\_\_\_  
 SUSAN K. SOHAL, Treasurer

  
 \_\_\_\_\_  
 HILARY M. STRAUS, Secretary

Signed: 12/07/2016

**TREASURER'S REPORT OF FUND BALANCES**  
**November 30, 2016**

		Beginning Balance 1/1/2016	Year to Date Transfers In / Collections	Year to Date Transfers Out	Current Month Transfers In / Collections	Current Month Transfers Out	10/31/2016 Ending Balance	2016 Target Balance per Policy
0-28600-00	Operating Fund	\$ 3,611,289	\$ 3,398,149	\$ (3,466,886)	\$ 1,264,075	\$ (1,425,806)	\$ 3,380,821	\$1,918,930
0-28100-00	Operating Reserve	\$ 1,912,263					\$ 1,912,263	N/A
0-28200-00	Rate Stabilization Fund	\$ 634,000					\$ 634,000	\$1,000,000
0-28300-00	Depreciation Reserve	\$ 808,169		\$ (808,169)			\$ -	N/A
0-28400-00	Capital Improvement Reserve	\$ 845,857	\$ 808,169				\$ 1,654,026	\$2,760,316
0-28510-00	Restricted for Debt Service	\$ 536,963					\$ 536,963	N/A
0-28700-00	Fleet Equipment Reserve	\$ 291,569					\$ 291,569	\$316,968
0-28800-00	Employment-Related Benefits Reserve	\$ 396,310					\$ 396,310	\$864,229
		<u>\$ 9,036,420</u>	<u>\$ 4,206,318</u>	<u>\$ (4,275,055)</u>	<u>\$ 1,264,075</u>	<u>\$ (1,425,806)</u>	<u>\$ 8,805,952</u>	

CITRUS HEIGHTS WATER DISTRICT  
 2016 OPERATING EXPENDITURE VS BUDGET  
 November 30, 2016

Account	Description	2016 MTD Expense	2016 YTD Expense	2016 Budget	Variance \$	Variance %
<b>Water Demand Management</b>						
	WATER DEMAND MANAGEMENT - POSTAGE	-	5,264	14,000	8,736	37.6%
	WATER DEMAND MANAGEMENT - PRINTING	2,554	10,502	25,000	14,498	42.0%
	WATER DEMAND MANAGEMENT - MATERIALS AND SUPPLIES	-	9,281	11,500	2,219	80.7%
	WATER DEMAND MANAGEMENT - CONTRACT SERVICES	17,182	158,692	221,000	62,308	71.8%
	WATER DEMAND MANAGEMENT - OTHER	-	3,949	8,000	4,051	49.4%
	WATER DEMAND MANAGEMENT - INCENTIVE PROGRAMS	1,125	13,250	30,000	16,750	44.2%
		<b>20,861</b>	<b>200,936</b>	<b>309,500</b>	<b>108,564</b>	<b>64.9%</b>
<b>Operations</b>						
	PURCHASED WATER	-	2,191,145	2,387,701	196,556	91.8%
	COOPERATIVE TRANSMISSION PIPELINE MAINTENANCE	-	-	5,000	5,000	0.0%
	POWER TO WELLS	-	115,000	244,904	129,904	47.0%
	WELLS - REPAIR / MAINTENANCE	2,717	7,544	22,000	14,456	34.3%
	WATER QUALITY ANALYSIS	1,204	23,671	41,000	17,329	57.7%
	FIELD MISCELLANEOUS - DUMP FEES	-	1,169	1,000	(169)	0.0%
	FIELD MISCELLANEOUS - OTHER	-	56	1,000	944	5.6%
	SMALL TOOLS - FIELD	4,024	28,974	23,400	(5,574)	123.8%
	SUPPLIES - FIELD	1,114	19,660	19,000	(660)	103.5%
	MATERIALS	25,099	246,367	6,000	(240,367)	4106.1%
	MATERIALS (Allocation to CIP)	(36,749)	(293,734)	-	-	0.0%
	ROADBASE	827	29,481	20,000	(9,481)	147.4%
	MAINTENANCE AGREEMENTS - EQUIPMENT	-	4,540	6,700	2,160	67.8%
	MAINTENANCE AGREEMENTS - SOFTWARE	2,994	138,113	134,332	(3,781)	102.8%
	REPAIR - FLEET EQUIPMENT	6,294	49,987	40,000	(9,987)	125.0%
	REPAIR - TOOLS AND EQUIPMENT	-	14,483	12,000	(2,483)	120.7%
	GAS AND OIL	3,737	31,872	51,000	19,128	62.5%
	EQUIPMENT RENTAL - FIELD	114	3,977	3,000	(977)	132.6%
	EQUIPMENT RENTAL & MAINT - OFFICE & BUILDING EQUIP	728	9,837	14,366	4,529	68.5%
	EQUIPMENT (Allocation to CIP)	(20,810)	(293,734)	-	-	0.0%
	PERMIT FEE - AIR QUALITY / HAZ MAT	-	2,723	5,700	2,978	47.8%
	PERMIT FEE - STATE WATER RESOURCES CONTROL BOARD (SWRCB)	-	6,618	14,000	7,382	47.3%
	PERMIT FEE - ENCROACHMENT PERMITS	21,094	28,843	44,000	15,157	65.6%
		<b>12,386</b>	<b>2,366,592</b>	<b>3,096,103</b>	<b>142,043</b>	<b>76.4%</b>
<b>Professional &amp; Contract Services</b>						
	PROFESSIONAL / CONTRACT SERVICES - ENGINEERING	-	815	20,000	19,185	4.1%
	PROFESSIONAL / CONTRACT SERVICES - TEMPORARY LABOR	2,374	72,965	50,000	(22,965)	145.9%
	PROFESSIONAL / CONTRACT SERVICES - WELLS	-	-	10,000	10,000	0.0%
	PROFESSIONAL / CONTRACT SERVICES - OFFICE LABOR	-	52,788	130,000	77,212	0.0%
	PROFESSIONAL / CONTRACT SERVICES - METER READING	10,403	96,308	108,960	12,652	88.4%
	PROFESSIONAL / CONTRACT SERVICES - BILL PRINT/MAIL	2,938	27,046	27,600	554	98.0%
	PROFESSIONAL / CONTRACT SERVICES - FINANCIAL	-	21,642	5,000	(16,642)	0.0%
	PROFESSIONAL / CONTRACT SERVICES - OTHER	7,428	109,524	133,460	23,936	82.1%
	CONTRACT SERVICES - CONCRETE	-	-	8,000	8,000	0.0%
	CONTRACT SERVICES - MISC FIELD / O&M	1,116	35,230	30,000	(5,230)	117.4%
	CONTRACT SERVICES - OFFICE REPAIRS / MAINT	-	1,982	2,000	18	99.1%
	CONTRACT SERVICES - PAVING	35,511	38,976	9,000	(29,976)	433.1%
		<b>59,770</b>	<b>457,277</b>	<b>534,020</b>	<b>76,743</b>	<b>85.6%</b>
<b>Administration &amp; General Services</b>						
	JANITORIAL	1,202	10,437	11,100	663	94.0%
	BANK FEES	6,360	72,437	71,000	(1,437)	102.0%
	OFFICE EXPENSE	2,075	13,054	15,000	1,946	87.0%
	SMALL OFFICE EQUIPMENT	-	4,172	2,000	(2,172)	208.6%
	DUES & SUBSCRIPTIONS	206	96,193	112,210	16,017	85.7%
	POSTAGE	12,952	119,185	103,000	(16,185)	115.7%
	PRINTING	-	1,846	7,700	5,854	24.0%
	TELEPHONE - WIRELESS	1,070	12,559	16,800	4,241	74.8%
	TELEPHONE - LOCAL / LONG DISTANCE	1,783	21,911	12,500	(9,411)	175.3%
	TELEPHONE - ANSWERING SERVICE	-	1,847	2,400	553	77.0%
	UTILITIES	219	15,465	19,700	4,235	78.5%

CITRUS HEIGHTS WATER DISTRICT  
 2016 OPERATING EXPENDITURE VS BUDGET  
 November 30, 2016

Account	Description	2016 MTD Expense	2016 YTD Expense	2016 Budget	Variance \$	Variance %
	LEGAL & AUDIT	6,877	60,894	78,900	18,006	77.2%
	CONTINUED EDUCATION	4,246	37,659	45,780	8,121	82.3%
	PUBLICATION NOTICES	53	589	1,500	911	39.2%
	OFFICE MISC - DISTRICT EVENTS	53	5,492	5,110	(382)	107.5%
	OFFICE MISC - MEETING ACCOMODATIONS	12	1,609	2,000	391	80.5%
	OFFICE MISC - OTHER	0	2,045	2,200	155	93.0%
	OFFICE MISC - MILESTONE EVENTS	1,972	6,644	5,100	(1,544)	130.3%
	BAD DEBT EXPENSE	-	5,136	5,000	(136)	102.7%
	COMPUTER SOFTWARE	-	650	3,700	3,050	17.6%
		<b>39,078</b>	<b>489,826</b>	<b>522,700</b>	<b>32,874</b>	<b>93.7%</b>
Administration Other						
	ELECTION EXPENSE	-	-	29,000	29,000	0.0%
	DIRECTORS MEETING COMPENSATION	1,885	12,325	20,300	7,975	60.7%
	RETIREE HEALTH CARE BENEFIT	3,603	34,163	43,547	9,384	78.5%
		<b>5,488</b>	<b>46,488</b>	<b>92,847</b>	<b>46,359</b>	<b>50.1%</b>
Salary & Benefits						
	SALARY - GENERAL MANAGER	24,073	254,631	292,854	38,223	86.9%
	SALARY - MANAGER (3 authorized positions)	12,227	232,629	375,083	142,454	62.0%
	SALARY - OFFICE (6 authorized positions)	44,801	209,658	454,100	244,442	46.2%
	SALARY -WATER DEMAND MANAGEMENT (2 authorized positions)	19,708	136,552	156,088	19,536	87.5%
	SALARY - FIELD / O&M (15 authorized positions)	127,556	964,814	1,118,893	154,079	86.2%
	STANDBY DUTY	690	14,400	17,940	3,540	80.3%
	SALARY - ENGINEERING	20,824	170,557	315,145	-	0.0%
	EMPLOYEE BENEFIT - VISION INSURANCE	883	10,398	5,100	(5,298)	203.9%
	EMPLOYEE BENEFIT - DENTAL INSURANCE	3,501	45,924	43,200	(2,724)	106.3%
	EMPLOYEE BENEFIT - HEALTH INSURANCE	34,279	342,341	375,272	32,931	91.2%
	EMPLOYEE BENEFIT - PERS RETIREMENT	17,311	434,555	422,554	(12,001)	102.8%
	EMPLOYEE BENEFIT - SOCIAL SECURITY	14,896	129,199	153,444	24,245	84.2%
	EMPLOYEE BENEFIT - MEDICARE	3,990	32,425	35,886	3,461	90.4%
	EMPLOYEE BENEFIT - UNEMPLOYMENT INSURANCE	224	6,852	7,875	1,023	87.0%
	EMPLOYEE BENEFIT - HEALTH INSURANCE REIMBURSEMENT	1,153	25,361	26,000	639	97.5%
	EMPLOYEE SALARY & BENEFITS - (Allocation to CIP)	0	(561,328)	(339,867)	221,461	165.2%
		<b>326,115</b>	<b>2,448,968</b>	<b>3,459,568</b>	<b>866,012</b>	<b>70.8%</b>
Insurance						
	INSURANCE - LIABILITY & COMPREHENSIVE	-	121,805	75,300	(46,505)	161.8%
	INSURANCE - DISABILITY & LIFE	2,102	27,885	28,300	415	98.5%
	INSURANCE - WORKER'S COMPENSATION	-	40,560	54,319	13,759	74.7%
		<b>2,102</b>	<b>190,249</b>	<b>157,919</b>	<b>(32,331)</b>	<b>120.5%</b>
Reserves & Debt Services						
	RATE STABLIZATION RESERVE	-	-	100,000	100,000	0.0%
	DEPRECIATION RESERVE	-	-	1,001,744	1,001,744	0.0%
	CAPITAL IMPROVEMENT RESERVE	-	-	1,000,000	1,000,000	0.0%
	DEBT SERVICE - COP SERIES 2010	-	571,102	571,200	98	100.0%
	DEBT SERVICE - COP SERIES 2012	-	168,871	169,063	192	99.9%
		<b>-</b>	<b>739,972.39</b>	<b>2,842,007</b>	<b>2,102,035</b>	<b>26.0%</b>
		<b>\$ 465,800</b>	<b>\$ 6,940,309</b>	<b>\$ 11,014,664</b>	<b>\$ 3,342,299</b>	<b>63.01%</b>

Citrus Heights Water District  
 Capital Projects Summary  
 Fiscal Period End as of November 2016

Project No.	Description	Budget				Remaining Commitments		Amounts Paid			Remaining Projections
		Total Project Budget	Adopted Budget 2016	Expenditures to 12/2015	Total Remaining Commitments	Current	Unpaid Committed	Month to Date	Year to Date	Project to date	2017
2015-31	Baird Way 12" Water Main Replacement Project	504,283		5,698	498,586			-	18,341	24,038	476,781
2015-32	Graham Circle 6" and Circuit Drive 8" Water Main Replacement Project			-	-	-	-	-	-	-	-
2015-33	Highland Avenue 8" Main Replacement and Rosa Vista Avenue 8" Main Installation Project	396,672	24,619	-	396,672	-	-	-	-	-	372,053
2015-34	Michigan Drive 8" / 6" Water Main Replacement Project			-	-	-	-	-	-	-	-
2015-35	Sunrise Blvd Streetscape Phase III			162,183	(162,183)	-	20,450	24,840	187,022	-	-
2015-36	Sylvan Road Street Improvements			4,161	(4,161)	-	-	89	4,250	-	-
2016-31	Wind Way 8-Inch and Longwood Way 6-Inch Water Main Replacements	324,446		-	324,446	-	-	-	-	-	-
2016-34	Auburn Blvd - Rusch Park to Placer County Line	158,252	8,968	-	158,252	-	-	-	-	-	323,446
<b>Distribution Mains - Replacement</b>		<b>1,383,653</b>	<b>33,587</b>	<b>172,041</b>	<b>728,914</b>	-	<b>20,450</b>	<b>43,269</b>	<b>215,310</b>	<b>1,172,280</b>	
2016-14	Fire Hydrants - Replacements / Upgrades / Infill / New	147,092	147,092	-	147,092	-	378	80,093	80,093	-	-
<b>Fire Hydrants - Replacements/Upgrades/New</b>		<b>147,092</b>	<b>147,092</b>	<b>-</b>	<b>147,092</b>	<b>-</b>	<b>378</b>	<b>80,093</b>	<b>80,093</b>	<b>-</b>	<b>-</b>
2015-02	Annual Corporation Yard Improvements/Replacements	109,500	109,500	-	109,500	-	7,976	36,440	36,440	-	-
2016-03	Annual Fleet and Field Operations Equipment Improvements/Replacements	32,200	32,200	-	32,200	-	-	53,105	53,105	75,000	-
2015-04	Annual Technology Hardware and Software Improvements/Replacements	750,000	300,000	3,356	746,644	-	-	27,233	30,590	450,000	-
2016-04	Annual Technology Hardware and Software Improvements/Replacements	38,934	38,934	-	38,934	-	-	51,817	51,817	-	-
2016-10	Water Main Pipeline Replacements	28,465	28,465	-	28,465	-	-	14,613	14,613	-	-
2016-11	Water Valve Replacements	91,281	91,281	-	91,281	-	8,757	104,688	104,688	-	-
2016-12	Water Service Replacements	757,685	757,685	-	757,685	-	98,453	685,835	685,835	-	-
2015-38	Mariposa Avenue 12" Water Main Replacement Project	27,111	27,111	-	27,111	-	-	-	-	-	-
2015-39	Cal Am Inter Connection			4,064	(4,064)	-	-	3,007	7,071	-	-
2016-22	Well Site Acquisition	250,000		-	250,000	-	1,800	1,800	1,800	-	-
2016-40	Other City Partnership Opportunities	99,057	99,057	-	99,057	-	-	-	-	149,284	-
2016-41	Other Miscellaneous Infrastructure Projects	99,057	99,057	-	99,057	-	-	-	-	-	-
<b>Miscellaneous Projects</b>		<b>2,283,290</b>	<b>1,583,290</b>	<b>7,420</b>	<b>2,275,870</b>	<b>-</b>	<b>116,985</b>	<b>978,537</b>	<b>985,957</b>	<b>674,284</b>	<b>-</b>
2012-13	Administration Building Expansion / Renovation Project			1,205,171	-	-	-	4,785	1,209,957	-	-
2016-25	Other Miscellaneous Infrastructure Projects - Admin Building Extension	100,000	100,000	-	-	-	-	79,887	79,887	-	-
<b>Miscellaneous Projects - Facilities</b>		<b>-</b>	<b>-</b>	<b>1,205,171</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>84,672</b>	<b>1,289,844</b>	<b>-</b>	<b>-</b>
2013-30	San Juan High School 24" North Property Line Transmission Main Installation	483,671	225,591	312,473	171,198	-	-	90,953	403,426	-	-
2014-36	San Juan Park 12" Water Main Installation - 5555 Mariposa Avenue to UC Davis Medical Center	348,800	198,842	177,630	171,170	-	-	67,773	245,402	-	-
2015-30	Poplar Avenue 14" Transmission Main Installation	112,335	99,655	4,756	107,579	-	657	15,342	20,098	-	-
<b>Transmission Mains - New</b>		<b>944,806</b>	<b>524,088</b>	<b>494,858</b>	<b>449,948</b>	<b>-</b>	<b>657</b>	<b>174,068</b>	<b>668,926</b>	<b>-</b>	<b>-</b>
2014-33	Mariposa Avenue 18" & 8" Sycamore Drive to Pratt Avenue			414,356	-	-	-	15,769	430,125	-	-
2016-30	Mariposa Avenue 12-inch Mains	533,706	533,706	10,214	523,493	-	205	613,678	623,891	-	-
2016-33	Limerick Way 8-Inch Main Replacements	239,415	239,415	-	-	-	987	240,788	240,788	-	-
<b>Transmission Mains - New and Distribution Mains - Replacement</b>		<b>773,121</b>	<b>773,121</b>	<b>424,570</b>	<b>523,493</b>	<b>-</b>	<b>1,192</b>	<b>870,234</b>	<b>1,294,804</b>	<b>-</b>	<b>-</b>
2016-13	Water Meter Replacements	53,158	53,158	-	53,158	-	12,863	80,246	80,246	-	-
<b>Water Meters</b>		<b>53,158</b>	<b>53,158</b>	<b>-</b>	<b>53,158</b>	<b>-</b>	<b>12,863</b>	<b>80,246</b>	<b>80,246</b>	<b>-</b>	<b>-</b>
2011-01	Fair Way 12" x 8" Interconnection w/ RV	28,105	28,105	-	28,105	-	-	-	-	-	-
2012-09	Blossom Hill Drive 6" x 10" Interconnection w/ RV	25,480	25,480	-	25,480	-	-	-	-	-	-
2012-10	Crestmont Avenue 6" Interconnection w/ RV	19,980	19,980	-	19,980	-	-	-	-	-	-
2013-21	Skycrest Skycrest Construction	2,081,569	-	2,145,695	-	-	622	248,327	2,394,022	-	-
2016-20	Groundwater Well Improvements	48,900	48,900	-	48,900	-	-	206	206	-	-
2015-37	C-Bar-C Pressure Control Station	200,000	200,000	-	200,000	-	-	-	-	-	-
<b>Water Meters - Emergency Intertie Water Meters</b>		<b>2,404,034</b>	<b>322,465</b>	<b>2,145,695</b>	<b>322,465</b>	<b>-</b>	<b>622</b>	<b>248,533</b>	<b>2,394,228</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>		<b>7,989,154</b>	<b>3,436,801</b>	<b>4,449,756</b>	<b>4,500,939</b>	<b>-</b>	<b>153,147</b>	<b>2,559,652</b>	<b>7,009,408</b>	<b>1,846,564</b>	<b>-</b>

## NOVEMBER 2016 WARRANTS

62432	ESRI	Maintenance Agreement-Equipment	\$12,416.00
62433	Martin Bros Construction Inc	Road Base	\$61,499.70
62434	San Juan Water District	Purchased Water	\$712,587.53
62435	SMUD	Utilities	\$15,130.41
62436	US Bank I.M.P.A.C. Government Services	Continued Education	\$12,282.15
62437	Sammy J/Margaret L Valencia	Customer Refund	\$69.58
62438	Mary C Bystra Trust	Customer Refund	\$134.95
62439	Negus LLC	Customer Refund	\$66.35
62440	Romeo Q/Ophelia R Llanes	Customer Refund	\$87.51
62441	Francine Ramirez	Customer Refund	\$7.94
62442	John A Garcia	Customer Refund	\$65.01
62443	Adam D Larson	Customer Refund	\$33.78
62444	Gordon Hammond	Customer Refund	\$316.76
62445	Timothy P/Katie A Cronin	Customer Refund	\$69.92
62446	RNM Investments	Customer Refund	\$77.44
62447	Keith S/Leslie M McCurry	Customer Refund	\$14.77
62448	William D Towle Jr	Customer Refund	\$13.28
62449	Frederick Matteson	Customer Refund	\$20.00
62450	Toni Spinosa Lasley	Customer Refund	\$49.04
62451	Village at Fair Oaks, LLC	Customer Refund	\$9.60
62452	CWIS, LLC	Customer Refund	\$417.50
62453	AFLAC	Employee Paid Insurance	\$362.66
62454	Avalon Custodial Care	Janitorial	\$695.00
62455	California Landscape Associates Inc	Janitorial	\$200.00
62456	Robin Cope	Health Insurance	\$402.00
62457	Cybex	Equipment Rental- Office	\$139.45
62458	J4 Systems	Contract Services-Other	\$60.00
62459	Kei Window Cleaning #12	Janitorial	\$92.00
62460	Office Depot	Office Expense	\$231.24
62461	RH Davis & Co. LTD	Contract Services-Engineering	\$1,800.00
62462	Holly Carlson	Office Expense	\$952.00
62463	Les Schwab Tires	Repair-Trucks	\$862.41
62464	Sonitrol	Equipment Rental- Office	\$162.27
62465	A. Teichert & Son, Inc.	Road Base	\$1,252.59
62466	The Lincoln National Life Insurance Company	Disability & Life Insurance	\$5,673.29
62467	Titan Workforce LLC	Contract Services-Temporary Labor	\$2,828.70
62468	Verizon Wireless	Telephone-Wireless	\$905.26
62469	WaterWise Consulting, Inc	Contract Services-Water Conservation	\$975.00
62470	Zane Dezign	Contract Services-Water Conservation	\$622.08
62471	Akhtar Nosrati Shamlou	Customer Refund	\$118.54
62472	Karena L Trouw-Zajicek	Customer Refund	\$117.48
62473	Garrett H Ray	Customer Refund	\$73.93
62474	Joshua J Pusateri	Customer Refund	\$137.08
62475	Shaojuan Cao	Customer Refund	\$14.13
62476	Alexander's Contract Services	Contract Services-Meter Reading	\$2,387.80
62477	Awards By Kay Inc	Office Expense	\$89.51
62478	Axcient Inc	Maintenance Agreement- Software	\$444.30
62479	BSK Associates	Water Analysis	\$1,152.00
62480	California Society of Municipal Finance Officers	Dues & Subscriptions	\$110.00
62481	Robert A Churchill	Continued Education	\$720.00
62482	City of Citrus Heights	Permit Fees	\$50.00
62483	J4 Systems	Contract Services-Other	\$4,021.46
62484	KBA DOCUSYS	Equipment Rental- Office	\$18.84
62485	KBA Docusys Inc	Equipment Rental- Office	\$343.43

62486	Mitch's Certified Classes	Continued Education	\$2,000.00
62487	Moonlight BPO	Contract Services- Bill Print	\$7,244.55
62488	Occu-Med	Office Miscellaneous	\$539.50
62489	Office Depot	Office Expense	\$134.43
62490	Pace Supply Corp	Material	\$6,082.20
62491	Protection One Alarm Monitoring	Equipment Rental- Office	\$24.00
62492	RW Trucking	Contract Services- Miscellaneous	\$1,116.25
62493	The Sacramento Gazette	Publication Notices	\$52.85
62494	Shauna Lea	Office Miscellaneous	\$250.00
62495	Sierra Office and Printing	Water Conservation-Materials/Supplies	\$2,429.00
62496	Susan Sohail	Continued Education	\$318.48
62497	Sonsray Machinery, LLC	Fixed Assets	\$188.26
62498	SureWest Directories	Telephone-Local/Long Distance	\$49.00
62499	State Water Resources Control Board	Dues & Subscriptions	\$55.00
62500	A. Teichert & Son, Inc.	Road Base	\$826.68
62501	Titan Workforce LLC	Contract Services-Temporary Labor	\$1,283.20
62502	TriFresh Technologies, Inc.	Wells Maintenance	\$1,765.30
62503	United Textile	Supplies-Field	\$247.60
62504	City of Citrus Heights	Permit Fees	\$2,340.00
62505	Republic Services #922	Utilities	\$201.42
62506	Void	Void	\$0.00
62507	ABA DABA Rentals & Sales	Supplies-Field	\$14.77
62508	ACWA/JPIA	Workers Comp Insurance	\$1,395.00
62509	Airgas USA, LLC	Supplies-Field	\$648.14
62510	Alexander's Contract Services	Contract Services-Meter Reading	\$6,527.91
62511	AREA Restroom Solutions	Equip Rental-Field	\$114.34
62512	Bart/Riebes Auto Parts	Repair-Trucks	\$151.97
62513	Consolidated	Telephone-Local/Long Distance	\$1,733.74
62514	Corelogic Information Solutions Inc	Dues & Subscriptions	\$206.33
62515	Corix Water Products, Inc	Material	\$314.71
62516	Golden State Flow Measurement, Inc	Material	\$3,095.71
62517	Ferguson Enterprises Inc #1423	Material	\$7,025.40
62518	Kaiser Foundation Health Plan, Inc	Health Insurance	\$21,303.24
62519	Moonlight BPO	Contract Services- Bill Print	\$1,860.05
62520	Titan Workforce LLC	Contract Services-Temporary Labor	\$1,433.45
62531	Estate of Margaret R Flowers-Dickens	Customer Refund	\$245.33
62532	Johnson Family Trust	Customer Refund	\$16.48
62533	Donald F/Catherine T Cove	Customer Refund	\$490.02
62534	Sylvan Professional Plaza	Customer Refund	\$2,000.00
62535	Huckaby Trust	Customer Refund	\$85.51
62536	Ronald A/Lisa D Beguin	Customer Refund	\$25.34
62537	Bud W/Julie D Mills	Customer Refund	\$190.41
62538	Griego Revocable Trust	Customer Refund	\$34.85
62539	Robert L/Jeannie R Lynch	Customer Refund	\$16.84
62540	Benedetto Family Trust	Customer Refund	\$10.00
62541	Muhamed Jusic	Customer Refund	\$10.15
62542	Cowles Trust	Customer Refund	\$104.53
62543	Keoni/Lorna Kalua	Customer Refund	\$209.67
62544	Joseph C/Jennifer H Mazzei	Customer Refund	\$15.23
62545	Wendy M Da Re Goodman	Customer Refund	\$159.01
62546	Lance W Dover	Customer Refund	\$77.50
62547	Mark G Domzalski	Customer Refund	\$106.48
62548	Joshua M Opperman	Customer Refund	\$59.80
62549	Sukhdeep Kaur	Customer Refund	\$156.35
62550	Christian A Mason	Customer Refund	\$14.17
62551	Joshua/Lisa Levine	Customer Refund	\$89.56
62552	Derek E Roediger	Customer Refund	\$167.42
62553	Southwest Grading Inc	Customer Refund	\$1,100.05



62554	Suzette Bienvenue	Customer Refund	\$11.05
62555	Amy/Ian Tilsley-France	Customer Refund	\$14.30
62556	Troy A/Mary L Osteraa	Customer Refund	\$80.37
62557	Lindsay Taylor	Customer Refund	\$30.40
62558	Richard L Walker	Customer Refund	\$8.41
62559	Weston Construction Inc.	Customer Refund	\$1,517.22
62560	Absolute Secured Shredding Inc	Equipment Rental- Office	\$40.00
62561	Airgas USA, LLC	Supplies-Field	\$19.57
62562	Albietz Law Firm	Legal & Audit	\$6,876.76
62563	Avalon Custodial Care	Janitorial	\$120.00
62564	BSK Associates	Water Analysis	\$476.00
62565	Burketts	Office Expense	\$38.43
62566	California Society of Municipal Finance Officers	Dues & Subscriptions	\$370.00
62567	PG&E/Leshanor Thomas	Customer Refund	\$1,493.49
62568	Headsets.com	Office Expense	\$484.87
62569	J4 Systems	Contract Services-Other	\$262.50
62570	Rex Meurer	Water Conservation-Materials/Supplies	\$477.69
62571	Moonlight BPO	Contract Services- Bill Print	\$6,032.42
62572	Pacific Gas & Electric	Utilities	\$17.15
62573	Red Wing Shoe Store	Small Tools	\$1,326.96
62574	Sacramento County	Permit Fees	\$401.53
62575	Ski Air Incorporated	Wells Maintenance	\$362.40
62576	Sophos Solutions	Contract Services-Other	\$4,080.00
62577	Sylvan Supply	Repair-Trucks	\$589.42
62578	Twin Home Services	Janitorial	\$95.00
62579	Voyager Fleet Systems Inc	Gas & Oil	\$1,562.76
62580	Warren Consulting Engineers Inc	Contract Services-Engineering	\$6,000.00
62581	Zee Medical Company	Supplies-Field	\$145.51
62582	Roger T Abe	Toilet Rebate Program	\$150.00
62583	Henry Lorenzo	Toilet Rebate Program	\$75.00
62584	Judy Lovell	Toilet Rebate Program	\$75.00
62585	Richard or Lori Mersereau	Toilet Rebate Program	\$75.00
62586	William G Rogers	Toilet Rebate Program	\$225.00
62587	Burketts	Office Expense	\$303.86
62588	Pace Supply Corp	Material	\$4,332.58
62589	Diana Xedes	Toilet Rebate Program	\$75.00
62590	Chris/Lisa M Matis	Customer Refund	\$99.79
62591	Janis L Bellows	Customer Refund	\$20.03
62592	Mitchell S Brown	Customer Refund	\$16.07
62593	Kenneth L/Keith Klein	Customer Refund	\$189.41
62594	Laurel Y Greene-Andrews	Customer Refund	\$115.02
62595	Mary Williams OBrien	Customer Refund	\$365.04
62596	Farnsley Family Trust	Customer Refund	\$90.48
62597	Shirley J Sells Living Trust	Customer Refund	\$11.20
62598	John B/Christine M Johnson	Customer Refund	\$205.67
62599	Olga Babchanik	Customer Refund	\$25.01
62600	Jacobus P Rossouw	Customer Refund	\$16.81
62601	Ivan Moad	Customer Refund	\$204.49
62602	Airgas USA, LLC	Supplies-Field	\$511.79
62603	All American Publishing	Water Conservation-Other	\$374.00
62604	AWWA	Dues & Subscriptions	\$3,773.00
62605	Caltronics Business System	Small Office Equipment	\$648.00
62606	CirclePoint	Contract Services-Water Conservation	\$5,327.67
62607	Robin Cope	Health Insurance	\$402.00
62608	Dawson Oil Company	Gas & Oil	\$2,168.04

62609	Digital Sky Arial Imaging	Office Expense	\$325.00
62610	East Bay Tire Co	Repair-Trucks	\$4,783.02
62611	Infinisource	Contract Services-Other	\$280.00
62612	Integrity Administrators Inc	Health Insurance	\$300.30
62613	Moonlight BPO	Contract Services- Bill Print	\$6,088.58
62614	Petty Cash	Petty Cash	\$124.59
62615	USPS	Postage	\$215.00
62616	The Lincoln National Life Insurance Company	Disability & Life Insurance	\$6,578.00
62617	Titan Workforce LLC	Contract Services-Temporary Labor	\$2,457.70
62618	Verizon Wireless	Telephone-Wireless	\$1,022.57
62619	Zane Dezin	Contract Services-Water Conservation	\$168.48
<b>TOTAL</b>			<u>\$996,893.26</u>

ACH	OCT 2016 FD	Bank Fee	\$385.12
ACH	OCT 2016 PH	Bank Fee	\$265.40
ACH	OCT 2016 WEB	Bank Fee	\$4,048.74
ACH	PERS NOVEMBER 2016	PERS	\$26,741.84
ACH	VALIC 111716 PAYDAY	Deferred Compensation	\$3,550.00
ACH	00007834499 VANCO	Contract Services-Other	\$83.34
ACH	0001569715 WHA	Health Insurance	\$15,560.21
ACH	2016102700 PAYCHEX	Contract Services-Other	\$376.20
ACH	OCTOBER2016 BANK FEE	Water Conservation-Other	\$1,660.54
ACH	PERS 11/17/16PAYDAY	PERS	\$15,972.52
ACH	PERS 11/3/16PAYDAY	PERS	\$15,852.44
ACH	VALIC 11/3/16PAYDAY	Deferred Compensation	\$3,550.00
ACH	VOYA 11/3/16PAYDAY	Deferred Compensation	\$25.00
ACH	VOYA 11/17/16 PAYDAY	Deferred Compensation	\$25.00
<b>TOTAL</b>			<u>\$88,096.35</u>

**GRAND TOTAL** \$1,084,989.61

**December Checks Approved at December Board Meeting**

62627	Regional Water Authority	Dues & Subscriptions	\$9,600.00
62629	US Bank I.M.P.A.C. Government Services	See December Agenda Item CC-9	\$13,395.94
62626	Domenichelli and Associates, Inc	Contract Services-Engineering	\$15,087.10
62628	SMUD	Utilities	\$17,213.68
62623	City of Citrus Heights	Permit Fees	\$18,753.50
62624	Civil Engineering Construction, Inc.	Contract Services- Miscellaneous	\$25,046.83
62622	Central Valley Engineering & Asphalt, Inc.	Contract Services-Paving/Concrete	\$35,511.00
62621	Sunrise Knoll Townhomes Assoc	Customer Refund	\$39,267.50
62625	Cogsdale	Contract Services-Other	\$59,332.10
<b>TOTAL</b>			<u>\$233,207.65</u>

**US BANK - CAL-Card Distributions**  
 November 2016  
*i:/users/ap/CalCard/(current year) -Distribution for monthly payment.xls*

<b>TOTAL</b>
<b>BILL</b>

#REF!		2016-04	51000-04	54210	54211	54241-01	54242	56200	56210	56230	56830	56890-01	56890-02	56890-03	56890-04	56950
	Fixed Asset/Office Equip	Water Conser/ Cont Serv	Tools	Supplies	Repair	Truck	Gas & Oil	Office Exp	Small Office Equipment	Postage	C.E.	Office Misc. District Event	Mtg Accorn	Office Misc. Other	Office Misc. Milestone Events	Software
Churchill	\$	98.10						15.10					83.00			
Cutler	\$	112.70			4.71			107.99								
Dains	\$	-														
Dietrich	\$	27.00													27.00	
Evans	\$	7,702.64	138.29	664.54	1,339.92	4,060.33		117.44	729.40			652.72				
Gordon	\$	82.90				44.90	38.00									
Hensley	\$	40.13			40.13											
Riehle	\$	-														
Sheehan	\$	-														
Shockley	\$	1,067.18								96.75	594.17		25.47		350.79	
Smoot	\$	664.52					36.26				566.79				61.47	
Straus	\$	3,600.77	1,736.97			32.99			1,500.00					80.81		250.00
	\$	13,395.94	1,736.97	138.29	664.54	1,384.76	4,138.22	74.26	240.53	2,229.40	96.75	1,160.96	652.72	108.47	80.81	439.26

2016  
 V#:  
 Date: 11/30/16

December 13, 2016 - AGENDA ITEM: CC-9

Citrus Heights Water District  
 2016 Director Training Courses/Seminars/Conferences  
 as of 12/8/2016

I:/users/Continued Ed/Continued Ed-2009.xls

Date	Days	Topic	Sponser	Location	Attendee	Total Expenses	Registration	Hotel	Air/Travel	Car rental	Meals	Parking/Taxi/ phone
02/04/16	1	Water Workshop 101	AWWA CA/NV	West Sacramento	Ray Riehle	225.00	225.00					
05/02/16	2	ACWA Spring Conference	ACWA	Monterey	Al Dains	1,650.87	695.00	675.41		246.10	34.36	
						0.00						
						0.00						
						0.00						
						0.00						
						0.00						
					Grand Total	1,875.87						

**Citrus Heights Water District**  
 2016 Officer Training Courses/Seminars/Conferences  
 as of 12/8/2016

I:/users/Continued Ed/Continued Ed-2009.xls

Date	Days	Topic	Sponser	Location	Attendee	Total Expenses	Registration	Hotel	Air/Travel	Car rental	Meals	Parking/Tax/ phone
03/21/16	3	Spring Conference	AWWA CA/NV	Sacramento	Hilary Straus	445.00	445.00					
03/21/16	3	Spring Conference	AWWA CA/NV	Sacramento	Robert Churchill	445.00	445.00					
03/21/16	3	Spring Conference	AWWA CA/NV	Sacramento	David Gordon	445.00	445.00					
05/01/16	2	Spring Conference	ACWA	Monterey	Robert Churchill	1,702.92	695.00	896.92			111.00	
05/01/16	2	Spring Conference	ACWA	Monterey	Hilary Straus	1,691.92	695.00	896.92			93.00	7.00
05/11/16	3	General Manager Leadership Summit	CSDA	North Lake Tahoe	Hilary Straus	1,304.09	725.00	579.09				
11/28/16	4	ACWA Fall Conference	ACWA	Anaheim	Hilary Straus	1,636.59	695.00	666.63	274.96			
03/21/16	3	Spring Conference	AWWA CA/NV	Sacramento	Tim Cutler	445.00	445.00					
03/28/16	4	Esri User Conference	Esri	San Diego	Borey Swing	1,565.62		955.70	343.98	24.50	169.44	72.00
05/11/16	5	GOFA Conference	GFOA	Toronto Canada	Susan Sohal	1,550.95	320.00		614.01	284.32	125.57	207.05
05/12/16	1	CUWCC Peer to Peer 2016	CUWCC	San Francisco	Rex Meurer	445.45	125.00	320.45				
05/26/16	5	Water Smart Innovations Conference	Water Smart Innov	Las Vegas	Rex Meurer	609.96	370.00		239.96			
06/22/16	4	Board Secretary/Clerk Conference	CSDA	Seaside	Lisa Smoot	1,172.44	675.00	497.44				
06/22/16	4	Board Secretary/Clerk Conference	CSDA	Seaside	Beth Shockley	1,172.44	675.00	497.44				
06/28/16	3	CalPers Education Forum	PERS	Riverside	Susan Sohal	1,166.72	350.00	611.76	204.96			
06/28/16	1	HR Boot Camp for Special Districts	CSDA	El Dorado Hills	Lisa Smoot	225.00	225.00					
06/29/16	2	HR Boot Camp for Special Districts	CSDA	El Dorado Hills	Beth Shockley	225.00	225.00					
07/06/16	1	Financial Management for Special Districts	CSDA	El Dorado Hills	Susan Sohal	225.00	225.00					
08/24/16	4	Parma Conference	Parma	Anaheim	Beth Shockley	1,048.92	320.00	567.00	161.92			
08/24/16	4	Parma Conference	Parma	Anaheim	Lisa Smoot	1,048.92	320.00	567.00	161.92			
11/28/16	4	ACWA Fall Conference	ACWA	Anaheim	Susan Sohal	1,906.30	695.00	888.84	322.46			
11/28/16	3	ACWA Fall Conference	ACWA	Anaheim	David Gordon	1,636.59	695.00	666.63	274.96			
						0.00						
						0.00						
						0.00						
						0.00						
					<b>Grand Total</b>	<b>22,114.83</b>						

DECEMBER 13, 2016 - AGENDA ITEM: CC-10

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : TRAINING / CONTINUED EDUCATION / MEETINGS  
 STATUS : Information Item  
 REPORT DATE : December 1, 2016  
 PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

Upcoming training, continued education and meeting opportunities for Directors and Management Staff for consideration. New items are noted in *bold italics*.

Common Abbreviations:	ACWA	Association of California Water Agencies
	AWWA	American Water Works Association
	CSDA	California Special Districts Association
	JPIA	Joint Powers Insurance Authority
	WEF	Water Education Foundation

- A. May 8-9 ACWA-JPIA 2017 Spring Conference  
 Monterey, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus
- B. May 9-12 ACWA 2017 Spring Conference  
 Monterey, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus
- C. Nov 27-28 ACWA-JPIA 2017 Fall Conference  
 Anaheim, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus
- D. Nov 28-Dec 1 ACWA 2017 Fall Conference  
 Anaheim, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus
- E. May 7-8 ACWA-JPIA 2018 Spring Conference  
 Sacramento, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus
- F. May 8-11 ACWA 2018 Spring Conference  
 Sacramento, CA  
 Recommended Attendees: Directors Dains, Sheehan, Riehle, GM Straus

G. WEF 2017 Water Tours

TBA

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# CITRUS HEIGHTS WATER DISTRICT

## WATER EFFICIENCY COORDINATOR REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : ACTIVITIES AND PROGRESS REPORT  
 STATUS : Information Item - Consent Calendar  
 REPORT DATE : December 6, 2016  
 PREPARED BY : Rex W. Meurer, Water Efficiency Supervisor

Water Efficiency program updates are summarized below.

### **CC-13 WATER EFFICIENCY PROGRAM UPDATE**

Water Efficiency Program activities during the month of October 2016 include:

- 15 ultra-low-flush toilet (ULFT) rebates were processed for the month of November. A total of 184 ULFT rebates have been processed for a total of \$13,800.00 year to date.
- For the month of November, 0 High Efficiency Clothes Washer (HECW) rebates were processed. Year-to-date, 11 HECW rebates were processed by SMUD for District customers.
- 37 water waste calls were received during the month of November. 1 report of water waste was received through the CHWD's Drought Resources web page. An additional 7 service requests were generated in-house by staff. A total of 32 contacts (mostly visits to customers' homes and phone calls) have been completed based on these reports.
- The following table summarizes the R-GPCD values for CHWD to date:

Month	R-GPCD 2015	R-GPCD 2016
January	75	80
February	83	77
March	108	77
April	117	107
May	129	155
June	163	213
July	176	237
August	172	242
September	160	189
October	140	123
November	82	85
December	75	



- Below is a recap of the regions overall water saving in August as compared to 2013.

<b>REDUCTION BY AGENCY (Data compared to 2013)</b>		
<b>Water Agency</b>	<b>Oct. 2016 Reduction</b>	<b>June 15 - Oct. 16 Reduction</b>
California American Water	33.8%	32.6%
Carmichael Water District	36.4%	30.5%
<b>Citrus Heights Water District</b>	<b>35.2%</b>	<b>30.6%</b>
City of Davis	28.9%	24.3%
City of Folsom	21.8%	20.8%
City of Lincoln	29.8%	27.1%
City of Roseville	35.9%	29.2%
City of Sacramento	31.3%	27.9%
City of West Sacramento	25.6%	27.8%
City of Woodland	19.7%	28.6%
City of Yuba City	24.0%	25.9%
Del Paso Manor Water District	15.6%	30.3%
El Dorado Irrigation District	33.2%	26.1%
Elk Grove Water District	23.0%	30.2%
Fair Oaks Water District	38.7%	31.2%
Golden State Water Company	24.7%	27.2%
Orange Vale Water Company	40.3%	34.7%
Placer County Water Agency	20.0%	24.1%
Rancho Murieta CSD	29.9%	24.8%
Rio Linda/Elverta CWD	33.4%	29.7%
Sacramento County Water Agency	31.5%	28.7%
Sacramento Suburban WD	27.2%	27.5%
San Juan Water District	40.5%	28.5%
Average	29.6%	28.2%
Minimum	15.6%	20.8%
Maximum	40.5%	34.7%

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : Policy Amendments  
 STATUS : Action Item  
 REPORT DATE : December 5, 2016  
 PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

### **OBJECTIVE:**

Consider approving amendments to the following District Human Resources Policies:

- Policy 4211 – Dental Insurance
- Policy 4212 – Vision Insurance
- Policy 4220 – Life Insurance and Accidental Death and Dismemberment Insurance
- Policy 4222 – Disability Insurance
- Policy 4610 – Performance Evaluation

### **BACKGROUND AND ANALYSIS:**

Policy revisions have been made to some of the policies to clarify policy language, or revise the policy to reflect previously enacted or recommended policy updates. A brief summary of substantive policy changes follows:

#### **Policy 4211 – Dental Insurance**

- In section 4211.00, deletion of the language “Memorandum of Understanding” and replacing it with “Offer Letter”. The District no longer uses Memorandum of Understanding for new hires. They are now presented with an Offer Letter.
- Addition of section 4211.20, Renewal. Moving forward it is recommended that the future renewal of the Dental Insurance be handled administratively, and only brought forward to the Board if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

#### **Policy 4212 – Vision Insurance**

- In section 4212.00, deletion of the language “Memorandum of Understanding” and replacing it with “Offer Letter”. The District no longer uses a Memorandum of Understanding for new hires. They are now presented with an Offer Letter. Also the dependents not eligible line is removed00, as that no longer applies.
- Addition of section 4212.10, Dependents, with the District allowing dependents access to the vision insurance, we have added this section listing the definition of a dependent as determined by the insurance carrier.
- Addition of section 4212.20, Renewal. Moving forward, it is also recommended that the future renewal of the Vision Insurance be handled administratively, and only brought forward to the Board if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

#### **Policy 4220 – Life Insurance and Accidental Death and Dismemberment Insurance**

- In section 4220.10, “non-exempt” is deleted and the coverage amount is increased from \$20,000 to \$100,000 for all District employees regardless of exempt/non-exempt status. Added language that all employees are eligible to purchase

additional life insurance regardless of exempt/non-exempt status.

- Addition of section 4220.30 Renewal, Moving forward it is also recommended that the future renewal of the Life Insurance and Accidental Death and Dismemberment be handled administratively, and only brought forward to the Board if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

**Policy 4222 – Disability Insurance**

- Addition of section 4222.10, Renewal. Moving forward, it is recommended that the future renewal of the Disability Insurance be handled administratively and only brought forward to the Board if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

**Policy 4610 – Performance Evaluation**

- Removal of the section stating that the General Manager will review each employee's evaluation and meet with each employee individually. Completion of the evaluation will be signed by the Department Manager and subsequently each Department Manager and/or Supervisor will meet with their staff members.

Copies of the policies with the proposed amendments identified are attached to this staff report.

**RECOMMENDATION:**

Approve proposed amendments to the following District Human Resources Policies.

Policy 4211 – Dental Insurance (Attachment 1)

Policy 4212 – Vision Insurance (Attachment 2)

Policy 4220 – Life Insurance and Accidental Death and Dismemberment Insurance  
(Attachment 3)

Policy 4222 – Disability Insurance (Attachment 4)

Policy 4610 – Performance Evaluation (Attachment 5)

**ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

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# **ATTACHMENT 1**

**Policy 4211 – Dental Insurance**

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : DENTAL INSURANCE  
POLICY NUMBER : 4211  
DATE ADOPTED : ~~JANUARY 7, 1986~~ DECEMBER 13, 2016  
DATE AMENDED : ~~JUNE 10, 2008~~ DECEMBER 5, 2016  
AMENDMENTS : (1) JUNE 3, 1992; (2) JULY 24, 1995; (3) JUNE 10, 2008

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4211.00                    DENTAL INSURANCE

The District provides group dental insurance for Regular employees who work 32 hours per week or more and their eligible dependents. Group dental insurance benefits for Part-Time employees are subject to the terms and conditions specified in the Employment Memorandum of Understanding Offer Letter between the District and the Part-Time employee (see Policy 4001).

The premium is fully paid by the District.

4211.10                    Dependents

For the purpose of determining eligibility for group health insurance benefits, dependents shall be as established and defined by the group health insurance carrier. Carriers typically include spouses and children to a specified age as eligible dependents. Evidence of the legal or eligibility status of dependents (e.g., marriage license, birth certificate, proof of college enrollment, etc.) may be required by carriers as a condition of providing dependent coverage.

4211.20                    Policy Renewal

Renewal of the Dental Insurance Policy shall be handled administratively, and only brought forward to the Board for approval if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

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## **ATTACHMENT 2**

Policy 4212 – Vision Insurance

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : VISION INSURANCE  
POLICY NUMBER : 4212  
DATE ADOPTED : ~~JUNE 3, 1992~~ DECEMBER 13, 2016  
DATE AMENDED : ~~JUNE 10, 2008~~ DECEMBER 5, 2016  
AMENDMENTS : (1) JULY 24, 1995; (2) June 10, 2008

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4212.00                    VISION INSURANCE

The District provides group vision insurance for Regular employees who work thirty-two (32) hours per week or more and their eligible dependents. Group vision insurance benefits for Part-Time employees are subject to the terms and conditions specified in the Employment Memorandum of Understanding Offer Letter between the District and the Part-Time employee (see Policy 4001).

The premium is fully paid by the District.

~~Dependents are not eligible.~~

4212.10                    Dependents

For the purpose of determining eligibility for group health insurance benefits, dependents shall be as established and defined by the group health insurance carrier. Carriers typically include spouses and children to a specified age as eligible dependents. Evidence of the legal or eligibility status of dependents (e.g., marriage license, birth certificate, proof of college enrollment, etc.) may be required by carriers as a condition of providing dependent coverage.

4212.20                    Policy Renewal

Renewal of the Vision Insurance Policy shall be handled administratively, and only brought forward to the Board for approval if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

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## **ATTACHMENT 3**

**Policy 4220 Life Insurance and Accidental Death and  
Dismemberment Insurance**



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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : LIFE INSURANCE AND ACCIDENTAL DEATH AND  
DISMEMBERMENT INSURANCE  
POLICY NUMBER : 4220  
DATE ADOPTED : ~~JANUARY 7, 1986~~ DECEMBER 13, 2016  
DATE AMENDED : ~~JUNE 10, 2008~~ DECEMBER 5, 2016  
AMENDMENTS : (1) JUNE 3, 1992; (2) OCTOBER 17, 1995; (3) JUNE 10, 2008

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4220.10 LIFE INSURANCE

Regular and Part-Time employees who work thirty-two (32) or more hours per week are covered by a group life insurance plan. The premium is fully paid by the District.

The amount of life insurance provided for all ~~non-exempt~~ Regular and Part-Time employees is ~~\$20,000~~ \$100,000.00

~~The amount of life insurance provided for all exempt employees is \$40,000.~~

~~Non-exempt employees may purchase \$20,000~~ All employees may purchase additional life insurance above that provided by the District. Said purchase shall be made by payroll deduction as coordinated through the ~~Office Administrator~~ Management Services.

Provision of this additional ~~\$20,000 of~~ life insurance is subject to acceptance by the insurance company. No additional compensation will be provided in lieu of non-acceptance of coverage.

4220.20 ACCIDENTAL DEATH AND DISMEMBERMENT INSURANCE

Regular and Part-Time employees who work thirty-two (32) or more hours per week are covered by a group accidental death and dismemberment insurance plan.

The premium is fully paid by the District.

4220.30 Policy Renewal

Renewal of the Life Insurance and Accidental Death and Dismemberment Policy shall be handled administratively, and only brought forward to the Board for approval if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

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# **ATTACHMENT 4**

Policy 4222 – Disability Insurance

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : DISABILITY INSURANCE  
POLICY NUMBER : 4222  
DATE ADOPTED : JANUARY 7, 1986  
DATE AMENDED : ~~JUNE 10, 2008~~ DECEMBER 7, 2016  
AMENDMENTS : (1) JUNE 3, 1992; (2) JULY 24, 1995; (3) JUNE 10, 2008

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4222.00                    DISABILITY INSURANCE

Regular and Part-Time employees who work thirty-two (32) or more hours per week are covered by a long term disability insurance plan. The premium is fully paid by the District. Employees will be provided with a copy of the plan document that specifies the situations by which an employee is eligible and the method by which the exact benefit is calculated.

The benefit of Long Term Disability Insurance is to provide income protection if the employee becomes disabled from a covered sickness, accidental bodily injury or pregnancy. Coverage begins after a specified number of calendar days of continuous disability as provided in the policy. Any and all accrued Annual Leave, Management Leave, Compensatory Time Off (CTO), Sick Leave may be used during the initial period and may be integrated with the employee's Long Term Disability Insurance benefit after this period. At no time will the employee's gross earnings between any combinations of insurance or accrued benefit be greater than 100% of the employee's regular pay during a period of disability.

A physician statement certifying a disability is required to apply for Long Term Disability Insurance benefits. Forms for application are available from the Office Administrator.

An employee's Annual Leave, Management Leave and Sick Leave benefits will continue to accrue during the initial thirty (30) calendar days of a disability, after which they will cease accruing until the employee returns to work. The District will continue to pay health, dental, vision, life, accidental death and dismemberment and long term disability insurance premiums while an individual is on disability and on an approved Medical Leave of Absence (see Policy 4331).

4222.10                    Policy Renewal

Renewal of the Dental Insurance Policy shall be handled administratively, and only brought forward to the Board for approval if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

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# **ATTACHMENT 5**

## **Policy 4610 – Performance Evaluation**

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : PERFORMANCE EVALUATION  
POLICY NUMBER : 4610  
DATE ADOPTED : JUNE 3, 1992  
DATE AMENDED : ~~JULY 10, 2012~~ DECEMBER 5, 2016  
AMENDMENTS : (1) AUGUST 9, 1995; (2) OCTOBER 14, 2008; (3) July 10, 2012

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4610.00                    PERFORMANCE EVALUATION

Each employee, upon being selected for employment or upon changing jobs while in District employment, shall receive a performance evaluation at the end of the first three months in their employment position and at the end of the first six months in their employment position and annually thereafter as directed by the General Manager/or General Manager's designee. The purpose of this evaluation will be to provide guidance to the employee with a review of his/her overall job performance within the assigned work areas ~~including complimentary remarks as well as identifying specific deficiencies and constructive recommendations for improvement.~~ The performance evaluation may also be used as a basis for determining employment retention, dismissal, and/or salary adjustment.

The performance evaluation will be facilitated by the employee's Department Manager. The Department Manager may include other supervisory employees in the evaluation process.

The Department Manager, supervisor(s), ~~and designated team leads~~ (if requested) shall independently evaluate the employee's performance based on factors set forth on the District employee Evaluation Form (see Attachment 4610.A1). The employee Evaluation Form shall be completed by the employee's supervisor(s) if so directed by the Department Manager, and submitted to the Department Manager for review and comments. The form shall be reviewed, with the opportunity to add written comments, by each supervisor up the chain of command if requested, concluding with the Department Manager.

Completion of the Evaluation Form shall be followed by a Department Manager supervisor(s)/employee interview at which time the evaluator(s) and employee shall have an opportunity to express his or her comments about the evaluation in general and with reference to any segments of the performance evaluation specifically. The Department Manager and supervisor(s) ~~and employee~~ shall sign the Evaluation Form at the conclusion of the interview and the employee shall be given a signed copy of same. ~~The employee will be requested to sign his/her evaluation.~~ The employee may provide written comments to the Department Manager for attachment to the evaluation within five (5) working days of the Department Manager/ supervisor(s)/employee interview. The Department Manager shall then submit the employee's Evaluation Form together with any employee comments to the General Manager.

~~The General Manager shall meet with the employee to review the performance evaluation following receipt of the employee evaluation from the Department Manager. The General Manager, by separate~~

~~instrument, may also provide written comments for attachment to the Evaluation Form. The General Manager's comments are to be signed by the General Manager and the employee at the conclusion of the meeting and the employee shall be given a signed copy of same. The original Evaluation Form, together with any attachments, shall be filed by the General Manager and maintained in the employee's personnel file.~~

The General Manager shall serve as the evaluator for ~~the Department Managers~~ his/her direct reports.

The performance evaluation shall not preclude the day-to-day needs of employees regarding guidance, assistance, corrective action, and employer/employee relations in general.

Employees are encouraged to communicate in all areas of job interest, in a timely fashion, to their immediate supervisor, who in turn shall report said communication to his or her supervisor. Upon retirement or separation of employment with Citrus Heights Water District, ~~whether as a voluntary resignation or as District initiated,~~ an exit interview ~~and final employee performance evaluation will~~ may be prepared consistent with the protocol above as reasonably practical and maintained in the employee's personnel file.

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# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS December 13, 2016 REGULAR MEETING

SUBJECT : DENTAL INSURANCE RENEWAL  
 STATUS : Action Item  
 REPORT DATE : December 1, 2016  
 PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

**OBJECTIVE:**

Consider approving the renewal of the District’s dental insurance for employees.

**BACKGROUND AND ANALYSIS:**

The District provides dental, vision, life, and short/long term disability insurance to all employees. Beginning January 1, 2016, the policies have been provided through Lincoln Financial. These policies are set to renew on January 1, 2017. All policies were guaranteed at the same rate for two years with the exception of the dental insurance. Dental insurance coverage is renewed on an annual basis. 2017 renewal rates for dental coverage has a minimal increase of 10%. This increase is below the Board approved budgeted amount of 12%.

Moving forward it is also recommended that the future renewal of the Dental, Vision, Life, Short/Long Term Disability, be handled administratively and only brought forward to the Board if there are any recommended policy or carrier changes, or if the rates come in above the approved budgeted amount.

**RECOMMENDATION:**

1. Approve the proposed dental plan renewal with Lincoln Financial.
2. Authorize staff to handle future renewals administratively when the rates are at or below the approved budget amount and/or the insurance carrier remains the same.

**ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : ACTUARIAL ANALYSIS OF RETIREE HEALTH BENEFITS  
 STATUS : Discussion/Information Item  
 REPORT DATE : November 30, 2016  
 PREPARED BY : Alberto Preciado, Senior Accountant  
                   Susan K. Sohal, Accounting Supervisor

**OBJECTIVE:**

Review and discuss a report presenting an actuarial and strategy for funding valuation of the District’s Post-Employment Benefits Other than Pensions (OPEB).

**BACKGROUND AND ANALYSIS:**

An actuarial analysis of retiree health benefits has been performed for Citrus Heights Water District by Demsey Filliger & Associates, a consulting actuary. This analysis complies with Governmental Accounting Standards Board Statement 45 (GASB 45) related to liability for other post-employment benefits. The results of the analysis was included in the District’s FY2015 financial statements. The actuarial report is included with this staff report.

The Summary on Page 1 of the report gives an overview of the results of the analysis of the projected future cost and actuarial accrued liability of the District’s health insurance benefits to employees who retire. To be eligible for health insurance benefits, employees must retire with at least 20 years of District service. For qualifying retirees and their qualified dependents, the District pays for medical, dental or other health premiums for retirees up to the following dollar amounts for Calendar Year 2016:

<u>Length of Employment</u>	<u>Maximum Monthly District Participation</u>
20.00 years	\$321.00
25.00 years	\$361.00
30.00 years	\$402.00

By policy, the Maximum Monthly District Participation is adjusted annually by the percent change in the Consumer Price Index for All Urban West Consumers (CPI-U).

The actuarial analysis uses a series of assumptions about how many employees will leave the District’s employment at various ages and years of service, and factors such as mortality, disability, retirement and turnover as well as the District’s return on its cash investments and other cost factors to arrive at its actuarial conclusions. The table on Page 6 of the report shows, by year, the expected level of funding in four scenarios: 1) Pay as you go; 2) a level contribution for 20 years; 3) a level percent of the Unfunded Accrued Liability; and 4) A constant percentage (3%) increase for the next 20 years.

The District, in reviewing its options and based on past practices, has selected the Pay as You Go option, setting aside funding that currently exceeds the minimum expected retiree medical annual benefit expense within the Employment-Related Benefits Reserve based upon the accompanying OPEB analysis. The Board



has set aside \$120,000 annually in the Employment-Related Benefits Reserve since 2007 to cover the current and future costs of retiree medical and other liabilities such as accrued leave balances that will be paid to the employee upon retirement. This Reserve now stands at \$396,310.38, and another \$120,000 is budgeted to be transferred from the Operating Reserve during Calendar Year 2016.

Since the funds are not set aside in a trust to ensure that they are not used for other purposes, the financial statements must show a Net OPEB Obligation even if the District fully intends to use the Employment-Related Benefits Reserve only for its intended purposes and faithfully sets aside the required funding on an annual basis.

District staff will report back at a future date on the benefits of funding its OPEB obligation through a trust as opposed to the current practice of setting it aside in a Reserve and paying it directly on an annual basis. From a legal and accounting standpoint, either practice is acceptable.

**RECOMMENDATION:**

Review the Actuarial Analysis of Retiree Health Benefits report.

**ACTION:**

None

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March 17, 2016

Ms. Mellie Deano  
Interim Accountant  
Citrus Heights Water District  
6230 Sylvan Road  
Citrus Heights, CA 95610

Re: Citrus Heights Water District ("District")  
GASB 45 Valuation as of January 1, 2015

Dear Ms. Deano:

This report sets forth the results of our GASB 45 actuarial valuation of the District's retiree health insurance program as of January 1, 2015.

In June, 2004 the Governmental Accounting Standards Board (GASB) issued accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require public employers such as the District to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. The District must obtain actuarial valuations of its retiree health insurance program under GASB 43/45 not less frequently than once every three years.

To accomplish these objectives the District selected Demsey, Filliger and Associates (DF&A) to perform an actuarial valuation of the retiree health insurance program as of January 1, 2015. This report may be compared with the valuation performed by Steven T. Itelson as of December 31, 2012, to see how the liabilities have changed since the last valuation. We are available to answer any questions the District may have concerning the report.

### **Financial Results**

We have determined that the amount of actuarial liability for District-paid retiree benefits is \$1,629,095 as of January 1, 2015. This represents the present value of all benefits expected to be paid by the District for its current and future retirees. If the District were to place this amount in a fund earning interest at the rate of 4.0% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.

This includes benefits for 30 retirees as well as 8 active employees who may become eligible to retire and receive benefits in the future.

When we apportion the \$1,629,095 into past service and future service components under the Projected Unit Credit Cost Method, the past service liability (or "Accrued Liability") component is \$1,060,112 as of January 1, 2015. This represents the present value of all benefits earned to date assuming that an employee earns retiree healthcare benefits ratably over his or her career. The \$1,060,112 is comprised of liabilities of \$518,888 for active employees and \$541,224 for retirees. Because the District has not established an irrevocable trust for the pre-funding of retiree healthcare benefits, the Unfunded Accrued Liability (called the UAL, equal to the AL less Assets) is also \$1,060,112.

We have determined that Citrus Heights Water District's "Annual Required Contributions", or "ARC", for 2015, is \$101,648. The \$101,648 is comprised of the present value of benefits accruing in the current year, called the "Service Cost", and a 30-year amortization of the UAL. We estimate that the District paid approximately \$31,000 for 2015 in healthcare costs for its retirees, so the difference between the accrual accounting expense (ARC) and pay-as-you-go is an increase of \$70,648.

There are two adjustments to the ARC that are required in order to determine the District's Annual OPEB Cost (AOC) for 2015. We have calculated these adjustments based on a Net OPEB Obligation of \$632,800 as of December 31, 2014, resulting in an AOC for 2015 of \$90,365.

We show these numbers in the table on the next page and in Exhibit I at the end of the report. All amounts are net of expected future retiree contributions, if any.

**Citrus Heights Water District**  
**Annual Liabilities and Expense under**  
**GASB 45 Accrual Accounting Standard**  
**Projected Unit Credit Cost Method**

Item	Amounts for Calendar 2015
Present Value of Future Benefits (PVFB)	
Active	\$1,087,871
Retired	<u>541,224</u>
<b>Total: PVFB</b>	<b>\$1,629,095</b>
Accrued Liability (AL)	
Actives	\$518,888
Retired	<u>541,224</u>
<b>Total: AL</b>	<b>\$1,060,112</b>
Assets	<u>(0)</u>
<b>Total: Unfunded AL</b>	<b>\$1,060,112</b>
Annual Required Contributions (ARC)	
Service Cost At Year-End	\$40,342
30-year Amortization of Unfunded AL	<u>61,306</u>
<b>Total: ARC</b>	<b>\$101,648</b>
Adjustments to ARC	
Interest on Net OPEB Obligation*	25,312
Adjustment to ARC*	<u>(36,595)</u>
<b>Total: Annual OPEB Cost (AOC) for 2015</b>	<b>\$90,365</b>

\*Amounts based on a December 31, 2014 Net OPEB Obligation of \$632,800.

The ARC of \$101,648, shown above, should be used for 2015, 2016 and 2017, but the Annual OPEB Cost for all three years must include an adjustment based on the Net OPEB Obligation as reported in the preceding year's financial statement, which is not known precisely in advance.

When the District begins preparation of the December 31, 2015 government-wide financial statements, DF&A will provide the District and its auditors with complimentary assistance in preparation of footnotes and required supplemental information for compliance with GASB 45 (and GASB 43, if applicable).

## Differences from Prior Valuation

The most recent prior valuation was completed as of December 31, 2012 by Steven T. Itelson. The AL (Accrued Liability) as of that date was \$1,414,800, compared to \$1,060,112 as of January 1, 2015. In this section, we provide a reconciliation between the two numbers so that it is possible to trace the AL from one actuarial report to the next.

Several factors have caused the AL to change since 2012. The AL increases with the passage of time as employees accrue more service and get closer to receiving benefits, and decreases as benefit obligations to current retirees are satisfied. There are actuarial gains/losses from one valuation to the next, and changes in actuarial assumptions and methodology for the current valuation. To summarize, the most important changes were as follows:

1. We lowered the discount rate from 4.25% to 4.0% to reflect the decrease in long-term interest rates since 2012. This change caused an increase in the AL of \$43,533.
2. There was a decrease in the AL from all other sources of \$592,644. Because of the change in actuarial firms, it is impossible for us to more accurately identify the individual sources of gain and loss that make up the \$592,644. We believe that much of it may be as a result of changes in demographic assumptions (turnover and retirement rates) as well as fewer retirements than assumed. Future DF&A reports will contain a more detailed breakdown of the sources of gains and losses.

The estimated changes to the AL from December 31, 2012 to January 1, 2015 may be summarized as follows:

<b>Changes to AL</b>	<b>AL</b>
AL as of 12/31/12	<b>\$1,414,800</b>
Passage of time	194,423
Change in discount rate	43,533
Decrease from all other sources	<u>(592,644)</u>
AL as of 1/1/15	<b>\$1,060,112</b>

## Funding Schedules

There are many ways to approach the pre-funding of retiree healthcare benefits. In the *Financial Results* section, we determined the annual expense for all District-paid benefits. The expense is an orderly methodology, developed by the GASB, to account for retiree healthcare benefits. However, the GASB 45 expense has no direct relation to amounts the District may set aside to pre-fund healthcare benefits.

The table on the next page provides the District with three alternative schedules for funding (as contrasted with expensing) retiree healthcare benefits. The schedules all assume that the retiree fund earns, or is otherwise credited with, 4.0% per annum on its investments, and that contributions and benefits are paid mid-year.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percent of the Unfunded Accrued Liability.
3. A constant percentage (3%) increase for the next 20 years.

We provide these funding schedules to give the District a sense of the various alternatives available to it to pre-fund its retiree healthcare obligation. The three funding schedules are simply three different examples of how the District may choose to spread its costs.

By comparing the schedules, you can see the effect that early pre-funding has on the total amount the District will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less the District will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the "pay-as-you-go" costs; therefore, the amount of pre-funding is the excess over the "pay-as-you-go" amount.**

These numbers are computed on a closed group basis, assuming no new entrants, and using unadjusted premiums.

**Citrus Heights Water District**

**Sample Funding Schedules (Closed Group)**

<b>Calendar Year</b>	<b>Pay-as-you-go</b>	<b>Level Contribution for 20 years</b>	<b>Level % of Unfunded Liability</b>	<b>Constant Percentage Increase</b>
2015	\$31,000	\$117,544	\$79,508	\$90,912
2016	33,446	117,544	78,370	93,640
2017	33,550	117,544	77,338	96,449
2018	36,427	117,544	76,346	99,342
2019	38,047	117,544	75,460	102,323
2020	41,386	117,544	74,644	105,392
2021	45,389	117,544	73,931	108,554
2022	49,341	117,544	73,330	111,811
2023	51,782	117,544	72,827	115,165
2024	54,165	117,544	72,380	118,620
2025	58,874	117,544	71,984	122,178
2026	63,130	117,544	71,678	125,844
2027	64,788	117,544	71,444	129,619
2028	68,452	117,544	71,222	133,508
2029	73,821	117,544	71,047	137,513
2030	75,716	117,544	70,940	141,638
2031	79,332	117,544	70,831	145,887
2032	83,859	117,544	70,744	150,264
2033	88,959	117,544	70,688	154,772
2034	92,543	117,544	70,662	159,415
2035	94,232	0	70,634	0
2036	98,455	0	70,569	0
2037	102,727	0	70,501	0
2038	106,559	0	70,423	0
2039	110,212	0	70,321	0
2040	113,494	0	70,187	0
2041	115,524	0	70,010	0
2042	118,690	0	69,772	0
2043	120,944	0	69,481	0
2044	122,706	0	69,125	0
2045	122,261	0	68,695	0
2046	122,523	0	68,170	0
2047	118,330	0	67,560	0
2048	117,144	0	66,829	0
2049	113,346	0	66,011	0
2050	110,023	0	65,091	0
2055	93,562	0	59,300	0
2060	73,012	0	73,012	0
2065	52,237	0	52,237	0
2070	33,186	0	33,186	0
2075	17,467	0	17,467	0
2080	7,034	0	7,034	0
2085	2,228	0	2,228	0
2090	623	0	623	0
2095	131	0	131	0

**Actuarial Assumptions**

In order to perform the valuation, the actuary must make certain assumptions regarding such items as rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions we have used for similar valuations, modified as appropriate for the District. For example, turnover rates were taken from a standard actuarial table, T-5, without adjustment. This table is representative of average turnover for small districts in California.

Retirement rates were also based on experience of other agencies of similar size and with similar retiree health benefits. These rates are at best an educated guess due to the small size of the plan population.

The discount rate of 4.0% is based on our best estimate of expected long-term plan experience. It is in accordance with our understanding of the guidelines for selection of this rate under GASB 45 for unfunded plans such as the District's. The healthcare trend rates are based on our analysis of recent District experience and our knowledge of the general healthcare environment.

A complete description of the actuarial assumptions used in the valuation is set forth in the "Actuarial Assumptions" section.

**Projected Annual Pay-as-you go Costs**

As part of the valuation, we prepared a projection of the expected annual cost to the District to pay benefits on behalf of its retirees on a pay-as-you-go basis. These numbers are computed on a closed group basis, assuming no new entrants, and are net of retiree contributions. Projected pay-as-you-go costs for selected years are as follows:

<b>Year</b>	<b>Pay-as-you-go</b>
2015	\$31,000
2016	33,446
2017	33,550
2018	36,427
2019	38,047
2020	41,386
2025	58,874
2030	75,716
2035	94,232
2040	113,494
2045	122,261
2050	110,023
2055	93,562
2060	73,012
2065	52,237
2070	33,186



## **Net OPEB Obligation and Annual OPEB Cost (AOC)**

Exhibit I shows a development of the District's Net OPEB Obligation as of December 31, 2012 through December 31, 2015, and the Annual OPEB Cost ("AOC") for 2013 through 2016. The Net OPEB Obligation as of December 31, 2015 and the AOC for 2016 are estimates as of the date this report is being published.

## **Certification**

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the "Actuarial Certification" section at the end of the report.

We have enjoyed working with the District on this report, and are available to answer any questions you may have concerning any information contained herein.

Sincerely,  
DEMSEY, FILLIGER AND ASSOCIATES

**DRAFT**

T. Louis Filliger, FSA, EA, MAAA  
Partner & Actuary

**Benefit Plan Provisions**

Retiree health benefits are secured through outside providers and premiums are reimbursed by the District according to the rules and to the extent described below. Because retirees do not remain on the District's group health plans, there is no implicit rate subsidy.

Retiree health benefits for retirements after March 19, 1996 are governed by section 4831 of the District's Policies and Procedures Manual, an excerpt of which is as follows:

The District's financial participation under this Policy is dependent upon the length of employment with the District as follows (dollar amounts shown are for 2015):

<u>Length of Employment</u>	<u>Maximum Monthly District Participation</u>
20 years	\$317/month
25 years	\$357/month
30 years	\$397/month

The Maximum Monthly District Participation shall be amended as of and effective January 1 of each year by the percent change in the Consumer Price Index for All Urban West Consumers (CPI-U) during the latest twelve month reporting period (typically October to October) unless otherwise determined by the Board of Directors. Said amendments shall be rounded up to the nearest whole dollar amount.

Unless otherwise directed by the Board of Directors, the monthly amount of reimbursement received by eligible retirees will be increased by any increase pursuant to the paragraph above, but will not be reduced by a decrease in the Maximum Monthly District Participation amount.

In the event of a retiree's death, a surviving qualified spouse, registered domestic partner, and/or dependents may choose to continue to participate in the benefits of this Policy. A spouse that remarries or a registered domestic partner that enters into another domestic partnership or marries is no longer eligible for participation.

The corresponding dollar amounts for 2016 are \$321, \$361 and \$402, respectively.

<b>Valuation Data</b>
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**Active and Retiree Census**

Age distribution of retirees included in the valuation

Age	Count
Under 55	1
55-59	2
60-64	2
65-69	2
70-74	0
75-79	0
80+	<u>1</u>
Total	8
Average Age	63.25

Age/Years of service distribution of active employees included in the valuation

Years→	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<u>Age</u>								
<25	1							1
25-29	0	0						0
30-34	6	1	0					7
35-39	2	1	0	1				4
40-44	3	0	0	0	1			4
45-49	1	1	0	0	1	1		4
50-54	0	2	1	1	2	1	0	7
55-59	0	0	0	1	0	0	0	1
60-64	0	1	0	0	0	0	1	2
65+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
All Ages	13	6	1	3	4	2	1	30

Average Age: 42.77  
Average Service: 10.23

## Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date:	January 1, 2015
Actuarial Cost Method:	Projected Unit Credit
Amortization Method:	30-year level dollar, open period
Discount Rate:	4.0% per annum
Return on Assets:	4.0% per annum
Pre-retirement Turnover:	According to Crocker-Sarason Table T-5 less mortality, without adjustment. Sample rates are as follows:

Age	Turnover (%)
25	7.7%
30	7.2
35	6.3
40	5.2
45	4.0
50	2.6
55	0.9

Pre-retirement Mortality: RP-2014 Employee Mortality, without projection. Sample deaths per 1,000 employees are as follows:

Age	Males	Females
25	0.48	0.17
30	0.45	0.22
35	0.52	0.29
40	0.63	0.40
45	0.97	0.66
50	1.69	1.10
55	2.79	1.67
60	4.69	2.44

Post-retirement Mortality: RP-2014 Healthy Annuitant Mortality, without projection. Sample deaths per 1,000 retirees are as follows:

Age	Males	Females
55	5.74	3.62
60	7.78	5.19
65	11.01	8.05
70	16.77	12.87
75	26.83	20.94
80	44.72	34.84
85	77.50	60.50
90	135.91	107.13

<b>Actuarial Assumptions (Continued)</b>
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Claim Cost per Retiree or Spouse (before applicable caps):

Age	Medical/Rx
Under 65	\$7,200
65+	3,600

Retirement Rates:

Age	Percent Retiring*
50-54	5.0%
55	10.0
56	12.0
57	15.0
58	18.0
59	20.0
60	22.0
61	25.0
62	30.0
63	35.0
64	40.0
65	100.0

\* Of those having met eligibility to receive retiree health benefits. The percentage refers to the probability that an active employee who has reached the stated age will retire within the following year.

Trend Rates:

Year	Medical/Rx
2015	8.0%
2016	7.0
2017	6.0
2018+	5.0

District dollar caps: Assumed to increase by 3% per year for all future years.

Average reimbursement: Under age 65 - 100% of the applicable dollar cap

Age 65+ - 75% of the applicable dollar cap

## Actuarial Certification

The results set forth in this report are based on our actuarial valuation of the health and welfare benefit plans of the Citrus Heights Water District ("District") as of January 1, 2015.

The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the District in March, 2016. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by the District.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 43 and GASB 45, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits. We have assumed no post-valuation mortality improvements, consistent with our belief that there will be no further significant, sustained increases in life expectancy in the United States over the projection period covered by the valuation.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:

**DRAFT**

T. Louis Filliger, FSA, EA, MAAA Date: \_\_\_\_\_  
Partner & Actuary

**Citrus Heights Water District  
Development of Annual OPEB Costs**

**Exhibit I**

	<b>Amount</b>
<b>Net OPEB Obligation 12/31/2012</b>	<b>434,848</b>
ARC for 2013	116,890
Interest on Net OPEB Obligation	18,481
Amortization adjustment to ARC	<u>(18,403)</u>
<b>Annual OPEB Cost 2013</b>	<b>116,968</b>
Employer Contribution	<u>(16,816)</u>
Change in Net OPEB Obligation 2013	100,152
Net OPEB Obligation 12/31/2012	<u>434,848</u>
<b>Net OPEB Obligation 12/31/2013</b>	<b>535,000</b>
ARC for 2014	123,823
Interest on Net OPEB Obligation	22,738
Amortization adjustment to ARC	<u>(22,660)</u>
<b>Annual OPEB Cost 2014</b>	<b>123,901</b>
Employer Contribution	<u>(26,101)</u>
Change in Net OPEB Obligation 2014	97,800
Net OPEB Obligation 12/31/2013	<u>535,000</u>
<b>Net OPEB Obligation 12/31/2014</b>	<b>632,800</b>
ARC for 2015	101,648
Interest on Net OPEB Obligation	25,312
Amortization adjustment to ARC	<u>(36,595)</u>
<b>Annual OPEB Cost 2015</b>	<b>90,365</b>
Employer Contribution (estimated)	<u>(31,000)</u>
Change in Net OPEB Obligation 2015	59,365
Net OPEB Obligation 12/31/2014	<u>632,800</u>
<b>Net OPEB Obligation 12/31/2015 estimated</b>	<b>692,165</b>
ARC for 2016	101,648
Interest on Net OPEB Obligation	27,687
Amortization adjustment to ARC	<u>(40,028)</u>
<b>Annual OPEB Cost 2016</b> <b>estimated</b>	<b>89,307</b>

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

---

SUBJECT : SUNRISE BOULEVARD COMPLETE STREET IMPROVEMENT PROJECT  
PHASE III - ANTELOPE ROAD TO CITY OF CITRUS HEIGHTS CITY  
LIMITS/PLACER COUNTY LINE VALVE BOX RAISING AND SETTING  
PROJECT

STATUS : Action Item

REPORT DATE : December 7, 2016

PREPARED BY : David M. Gordon, Operations Manager

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### **OBJECTIVE:**

Consider Acceptance of the Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting Project (2015-35), and authorize execution and recording of a Notice of Completion for the Project.

### **BACKGROUND AND ANALYSIS:**

On June 13, 2016, a contract was executed between Citrus Heights Water District and Martin Brothers Construction for raising and setting thirty (30) valve boxes on Sunrise Boulevard from Antelope Road to the City of Citrus Heights City Limits/Placer County Line. Concurrently, the City of Citrus Heights entered into a contract with Martin Brothers Construction for constructing new sidewalks, pavement overlay, and other related work as part of the Sunrise Boulevard Complete Street Phase III Improvement Project. The valve box raising and setting project provides dependable access to the critical water infrastructure along Sunrise Boulevard, and ensures safe travel for vehicular traffic and pedestrians.

The original contract amount was \$21,500.00. The amount paid to the contractor is \$20,450.00 for material, labor and equipment. The amount paid below the original bid amount was due to variations between the bid item estimates and the actual total measured. This differential included the subtraction of two (2) valve boxes at \$525.00 each, which were later determined to be outside of the project area. Work began on the project on June 15, 2016. Martin Brothers Construction substantially completed the valve box raising project on June 28, 2016.

### **RECOMMENDATION:**

Adopt Resolution 34-2016, Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting (2015-35), and authorize the District Secretary to execute and record a Notice of Completion for the Project.

### **ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

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CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 34-2016

RESOLUTION OF THE BOARD OF DIRECTORS  
ACCEPTING  
THE SUNRISE BOULEVARD COMPLETE STREET IMPROVEMENT PROJECT  
PHASE III - ANTELOPE ROAD TO CITY OF CITRUS HEIGHTS CITY  
LIMITS/PLACER COUNTY LINE  
VALVE BOX RAISING AND SETTING PROJECT

WHEREAS, on June 13, 2016 the contract was fully executed between the District and Martin Brothers Construction, Inc.; and

WHEREAS, Martin Brothers Construction, Inc. has completed the work for the Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting Project in accordance with the plans, specifications and contract documents prepared by the District pursuant to a final inspection on December 7, 2016.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District that the Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting Project is accepted as complete.

BE IT FURTHER RESOLVED that the District Secretary is authorized to execute a Notice of Completion for the Sunrise Boulevard Complete Street Improvement Project Phase III – Antelope Road to City of Citrus Heights City Limits/Placer County Line Valve Box Raising and Setting Project and to have said Notice recorded with the Office of the Recorder of Sacramento County.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 13th day of December 2016 by the following vote, to wit:

AYES: Directors:  
NOES: Directors:  
ABSTAIN: Directors:  
ABSENT: Directors:

SEAL

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ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

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HILARY M. STRAUS, Secretary  
Citrus Heights Water District

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

---

SUBJECT : LIMERICK WAY, DUBLIN WAY, TIPPERARY WAY AND GALWAY COURT  
PAVEMENT RESTORATION PROJECT

STATUS : Action Item

REPORT DATE : December 7, 2016

PREPARED BY : David M. Gordon, Operations Manager

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### **OBJECTIVE:**

Consider Acceptance of the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project (2016-33), and authorize execution and recording of a Notice of Completion for the Project.

### **BACKGROUND AND ANALYSIS:**

On September 9, 2016, a contract was executed between Citrus Heights Water District and Central Valley Engineering & Asphalt, Inc. for pavement restoration along portions of Limerick Way, Dublin Way, Tipperary Way and Galway Court in Citrus Heights. The pavement restoration was the final trench restoration of Citrus Heights Water District's water main improvements along said streets. The pavement restoration project provides dependable road and trench maintenance above critical water infrastructure along Limerick Way, Dublin Way, Tipperary Way and Galway Court and ensures safe travel for vehicular traffic and pedestrians.

The original contract amount was \$38,982.00. The amount paid to the contractor is \$35,511.00 for material, labor and equipment. The amount paid below the original bid amount was due to variations between the bid item estimates and the actual total measured. This differential included the subtraction of six hundred and fifty (650) square-feet of asphalt concrete paving \$5.34 per square-foot. The differences in square-footage was due to measurements trench restoration specifications and the field restoration requirements by the City of Citrus Heights Encroachment Permit Inspector. Work began on the project on October 17, 2016. The final inspection of Central Valley Engineering & Asphalt, Inc. pavement restoration project was performed on November 16, 2016, which considered the project as complete.

### **RECOMMENDATION:**

Adopt Resolution 35-2016, Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project (2016-33), and authorize the District Secretary to execute and record a Notice of Completion for the Project.

### **ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

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CITRUS HEIGHTS WATER DISTRICT  
RESOLUTION NO. 35-2016

RESOLUTION OF THE BOARD OF DIRECTORS  
ACCEPTING  
THE LIMERICK WAY, DUBLIN WAY, TIPPERARY WAY AND GALWAY  
COURT PAVEMENT RESTORATION PROJECT

WHEREAS, on August 9, 2016 the Board of Directors of the Citrus Heights Water District authorized the award of a contract to Central Valley Engineering & Asphalt, Inc. for the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project; and

WHEREAS, on September 9, 2016 the contract was fully executed between the District and Central Valley Engineering & Asphalt, Inc.; and

WHEREAS, Central Valley Engineering & Asphalt, Inc. has completed the work for the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project in accordance with the plans, specifications and contract documents prepared by the District pursuant to a final inspection on November 16, 2016.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Citrus Heights Water District that the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project is accepted as complete.

BE IT FURTHER RESOLVED that the District Secretary is authorized to execute a Notice of Completion for the Limerick Way, Dublin Way, Tipperary Way and Galway Court Pavement Restoration Project and to have said Notice recorded with the Office of the Recorder of Sacramento County.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 13th day of December 2016 by the following vote, to wit:

AYES: Directors:  
NOES: Directors:  
ABSTAIN: Directors:  
ABSENT: Directors:

SEAL

---

ALLEN B. DAINS, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

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HILARY M. STRAUS, Secretary  
Citrus Heights Water District

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

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SUBJECT : SELECTION OF PRESIDENT AND VICE PRESIDENT  
STATUS : Action Item  
REPORT DATE : December 1, 2016  
PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

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**OBJECTIVE:**

Consider selection of President and Vice President of the Board of Directors.

**BACKGROUND AND ANALYSIS:**

Pursuant to District Board of Director and Officers Policy No. 2010 (attached), a President and Vice President of the Board of Directors are to be elected by a majority vote of the Board in December of each year.

The terms of office will begin as soon as acted upon by the Board.

**RECOMMENDATION:**

1. Receive nominations for President of the Board of Directors and conduct an election.
2. Receive nominations for Vice President of the Board of Directors and conduct an election.

**ACTION:**

1. For President: \_\_\_\_\_

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

2. For Vice President: \_\_\_\_\_

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : BOARD OF DIRECTORS AND OFFICERS  
POLICY TITLE : PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS  
POLICY NUMBER : 2010  
DATE ADOPTED : MARCH 7, 1995  
DATE AMENDED : JANUARY 5, 1999

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2010.00      PRESIDENT AND VICE PRESIDENT OF THE BOARD OF DIRECTORS

A President and a Vice President of the Board of Directors shall be chosen from members of the Board of Directors. The President and Vice President shall perform duties as established by the Board of Directors and as required by law.

2010.10      Selection and Term of Office of President and Vice President

Each December or as otherwise necessary, the Board of Directors shall elect a President and a Vice President from among its members. Nominations from members of the Board will be requested and a President and a Vice President shall be elected by a majority vote of the Board of Directors. The term of office of the President and the Vice President shall begin immediately upon their election unless otherwise specified by the Board of Directors.

2010.20      Duties of the President

The President of the Board of Directors shall:

- 2010.21      Preside at meetings and hearings of the Board of Directors and conduct said meetings to ensure proper order and decorum.
- 2010.22      Execute documents on behalf of the District that are approved at the meeting including, but not limited to, warrants, resolutions, agreements, and contracts.
- 2010.23      Rule on points of order and passage or failure of motions, resolutions, or ordinances brought before the Board.
- 2010.24      Invite public participation when appropriate during meetings of the Board of Directors.
- 2010.25      Set the time and place for any adjourned, special or emergency special meeting of the Board of Directors.
- 2010.26      Serve as public spokesperson of the Board and express adopted policy of the District when called upon to do so.

- 2010.27 Represent the Board of Directors at public meetings or ceremonies when called upon to do so.
- 2010.28 Perform other duties as may be required by law or as directed by the Board of Directors.
- 2010.29 Appoint a member(s) of the Board of Directors, Officers or staff to serve or represent the District at public meetings, ceremonies or on committees on behalf of the District.

2010.30 Duties of the Vice President

In the absence of the President, the Vice President shall assume the duties of the President until such a time as the President is in attendance. In the event that the office of President is vacant, the Vice President shall act in the place of the President until the Board of Directors elects a new President.

2010.40 Participation in Meetings of the Board of Directors

The President and Vice President shall have the same rights as other members of the Board of Directors in voting, introducing motions, resolutions, and ordinances, and any discussion of questions that follow said actions.

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# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : Hydraulic Model Update and Calibration  
 STATUS : Action Item  
 REPORT DATE : December 6, 2016  
 PREPARED BY : Brian Hensley, Water Resources Supervisor

**OBJECTIVE:**

Consider authorization of a Professional Services Agreement (PSA) with West Yost Associates to provide engineering services for the Hydraulic Model Update Project.

**BACKGROUND AND ANALYSIS:**

In 2009, Brown and Caldwell Engineers completed the “San Juan Water District Wholesale Service Area Water System Hydraulic Model” for the family of agencies to use as a comprehensive planning tool for hydraulic analysis, dry year, and emergency condition water supply planning. With changing system demands and customer use patterns, District staff has determined that a model update and recalibration is required to maintain accurate distribution system analysis. The District solicited proposals from three (3) engineering firms to provide engineering services for the Hydraulic Model Update Project. The projects objectives are for the consultant to work in collaboration with District Staff to: (1) update District Hydraulic Model, (2) complete Hydraulic Model Calibration and Validation, (3) Prepare a Model Update Technical Memorandum.

Upon review of the proposals, we are recommending the following firm to provide engineering services for the Hydraulic Model Update Project.

<u>Consulting Engineer</u>	<u>Cost</u>
<b>West Yost Associates</b>	<b>\$38,500.00*</b>
Brown and Caldwell	\$46,237.00
Bennett Engineering	\$49,036.00

\*Total for Base Scope of Work, not including Optional Services Task. Upon review, District Staff has determined additional tasks are not needed at this time.

Further, the updated Hydraulic Model will serve as an important planning tool as CHWD undertakes advanced planning for Project 2030 water main replacements and as CHWD analyzes options for system-wide pressure reduction, both strategic planning items.

**RECOMMENDATION:**

Authorize the General Manager to execute a Professional Services Agreement with West Yost Associates in an amount not to exceed \$42,350.00 (\$38,500.00 with 10% contingency) for engineering services Hydraulic Model Update Project.

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

# CITRUS HEIGHTS WATER DISTRICT

## Professional Services Agreement

This PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016 by and between CITRUS HEIGHTS WATER DISTRICT, an Irrigation District operating under the State of California Water Code (the “District”) and West Yost Associates (the “Consultant”).

### RECITALS

A. WHEREAS, District proposes to utilize the services of Consultant as an independent contractor to render professional services, as more fully described herein; and

B. WHEREAS, Consultant represents to District that Consultant possesses the skill, experience, ability, background, training, competency and knowledge, and further represents that Consultant holds all necessary licenses and certifications, to practice and perform the services herein contemplated; and

C. WHEREAS, District and Consultant desire to contract for the specific services described in Exhibit “A” (“Scope of Services”) and desire to set forth their rights, duties and liabilities in connection with the services to be performed.

NOW THEREFORE, in consideration of the mutual covenants set forth herein for such other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the parties hereto agree as follows:

### 1.0. SERVICES PROVIDED BY CONSULTANT

1.1. Scope of Services. Consultant shall perform the professional services described in the “Scope of Services” attached hereto and made a part hereof and identified as Exhibit “A”. All of the services identified in the Scope of Services shall hereinafter be collectively referred to as “Services”. Consultant shall correct any and all errors and/or omissions in the performance of the Services and any documents resulting therefrom even though District has accepted said Services or documents. Such corrections shall be made by Consultant upon District’s request and at no cost or expense to District.

1.2. Consultant an Independent Contractor. Consultant shall perform the services under the Agreement as an independent contractor. Consultant and all of its employees shall not be considered officers, employees, agents, partners, or a joint venture of District, and are not entitled to benefits of any kind or nature normally provided employees of District and/or to which District’s employees are normally entitled, including, but not limited to, State Unemployment Compensation or Worker's Compensation. Consultant shall assume full responsibility for payment of all federal, State and local taxes or contributions, including unemployment insurance, social security and income taxes with respect to Consultant’s employees. Consultant shall be wholly responsible for the methods of performance, and shall



furnish, at its own expense, all labor, materials, equipment, supplies or other items necessary to complete the Services required by this Agreement. District shall have no right to supervise Consultant's performance, but shall have the right to observe it. Consultant shall work closely with District in performing the services, as reasonably requested by Consultant, without changing Consultant's independent contractor status.

1.3. Professional Practices. All Services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also warrants that it is familiar with all laws that may affect its performance of this Agreement and shall advise District of any changes in any laws that may affect Consultant's performance of this Agreement.

1.4. Familiarity with Services. By execution of this Agreement, Consultant warrants that:

(1) It has thoroughly investigated and considered the Services to be performed, based on all available information; and

(2) It carefully considered how the Services should be performed; and

(3) It fully understands the difficulties and restrictions attending the performance of the Services under this Agreement; and

(4) It has the professional and technical competency to perform the Services and the production capacity to complete the Services in a timely manner with respect to the scope of services.

1.5. Performance to Satisfaction of District. Consultant agrees to perform all the Services to the complete satisfaction of District. Evaluations of the Services will be done by General Manager or his designee. If the quality of Services is not satisfactory, District in its discretion has the right to:

(a) Meet with Consultant to review the quality of the Services and resolve the matters of concern;

(b) Require Consultant to repeat the Services at no additional fee until it is satisfactory; and/or

(c) Terminate the Agreement as hereinafter set forth.

1.6. Responsibility for Errors. Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by District's representative, regarding any services rendered under this Agreement at no additional cost to District. In the event that an error or omission attributable to

Consultant occurs, then Consultant shall, at no cost to District, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of District and to participate in any meeting required with regard to the correction.

1.7. Time of Performance. The Services of Consultant are to commence upon execution of this Agreement and shall continue until all authorized work is approved by District.

## **2.0. COMPLIANCES**

2.1. Compliance with Law. Consultant shall perform the Services required by this Agreement in compliance with all applicable Federal, State and local laws, ordinances, rules and regulations applicable to the Services required under this Agreement. Consultant shall give all required notices and shall obtain any approvals required by government agencies. Consultant shall be liable for all violations of law in connections with Services furnished by Consultant. Consultant shall indemnify and hold harmless District from and against all claims, demands, payments, suits, actions, proceedings, and judgments of every nature and description including attorneys' fees and costs, presented, brought, or recovered against District for, or on account of any liability under this Section 2, as set forth herein Section 7: "Indemnification."

2.2. Non-discrimination. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment because of their age, ancestry, color, religious creed, denial of family and medical care leave, disability, marital status, medical condition (cancer and genetic characteristics), genetic information, military and veteran status, national origin, race, sex, gender, gender identity, gender expression, or sexual orientation. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of District's programs or guidelines currently in effect or hereinafter enacted regarding equal opportunity employment.

2.3. Workers' Compensation Insurance. Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and that Consultant will comply with such provisions before commencing the performance of the Services. Consultant certifies that in the performance of the Services, Consultant shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agrees that if Consultant should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, Consultant shall forthwith comply with those provisions. Consultant shall comply with the code requirements and all other applicable laws and regulations regarding Workers' Compensation, payroll taxes, FICA and tax withholding and similar employment issues. Consultant further agrees to hold District harmless from loss or liability, which may arise from the failure of Consultant to comply with any such laws or regulations.

2.4. Safety. Consultant shall execute and maintain Services so as to avoid injury or

damage to any person or property. In carrying out the Services, Consultant shall at all times, exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed, and be in compliance with all applicable federal, State and local statutory and regulatory requirements including State of California, Division of Industrial Safety (Cal/OSHA) regulations, and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act (OTETA) as applicable. Safety precautions as applicable shall include instructions in accident prevention for all employees including equipment and wearing apparel as are necessary or lawfully required to prevent accidents and/or injuries.

### **3.0. COMPENSATION**

3.1. Billing. Consultant shall submit a monthly invoice to District within 20 days of the end of the previous month in which Services are performed or expenses are incurred under this Agreement. Consultant's invoices shall include a brief description of the Services performed and the date the Services were performed, the number of hours spent and by whom, and a description of any reimbursable expenses. Reimbursable expenses shall be limited to actual expenditures of Consultant for expenses that are necessary for the proper completion of the Services and shall only be payable if specifically authorized in advance by District. In no case will the total amount paid to Consultant exceed the Maximum Amount as described in Section 3.2.

3.2. Maximum Amount. The maximum amount payable under the terms of this Agreement, including expenses, will not exceed \$42,350. Consultant shall promptly notify District, in writing, when fees and expenses incurred under this Agreement have reached \$33,880 (80% of maximum amount allowable). Consultant shall concurrently inform District of Consultant's estimate of total expenditures required to complete its current assignments before proceeding, when the remaining work would exceed the maximum amount payable.

3.3. Additional Services. Consultant shall not receive compensation for any Services provided outside the Scope of Services unless District approves such additional services in writing prior to Consultant performing the additional services.

3.4. Payment. District shall pay Consultant no later than 45 days after approval of the monthly invoice by District staff.

### **4.0. RECORDS, DOCUMENTS AND DATA, AUDIT AND LICENSE RIGHTS.**

4.1. Records, Documents, Data and Retention. Consultant shall maintain adequate records, provide daily status reports to District and upon request deliver to District all findings, plans, specifications, studies, reports, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, records, data, pictures, reports, appraisals, inventories, studies, analyses, drawings, estimates, computer disks, files or data magnetically or otherwise recorded on computer or internet cloud services which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data") prepared or obtained in the performance of the Agreement, which shall be and remain

the property of District. Consultant shall retain Consultant's books, documents, papers, materials, payrolls, records, accounts, computer disks, tapes and any and all data relevant to the Agreement for a minimum of three (3) years following under this Agreement and shall permit District and its authorized representatives to examine, re-examine, make excerpts, transcribe and copy such items at any reasonable time within three (3) years after final payment under the Agreement.

4.2. Audit. Consultant shall also permit District and its authorized representatives to audit and verify statements, invoices or bills submitted by Consultant pursuant to the Agreement. Audit(s) may be performed at any time, provided that District shall give reasonable prior notice to Consultant and shall conduct audit(s) during Consultant's normal business hours, unless Consultant otherwise consents. Consultant shall provide such assistance as may be reasonably required in the course of such examination and audit.

4.3. Licensing of Intellectual Property. This Agreement creates a non-exclusive and perpetual license for District to use, modify, reuse or sublicense any and all copyrights, designs, and other intellectual property embodied in Documents & Data, which are prepared or caused to be prepared by Consultant under this Agreement. Consultant shall require all subcontractors to agree in writing that District is granted non-exclusive and perpetual license for any Documents & Data the subcontractor prepared under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. District shall not be limited in any way in its use of the Documents & Data at any time, provided that any such use not within the purpose intended by this Agreement shall be at District's sole risk.

## **5.0. LIABILITY INSURANCE**

Consultant will file with District, before beginning professional services, certificates of insurance satisfactory to District. Coverage is to be placed with a carrier with an A.M. Best rating of no less than A-: VII, or equivalent, or as otherwise approved by District. The retroactive date (if any) is to be no later than the effective date of this Agreement.

5.1. Certificates of Insurance. Consultant will file with District, before beginning Services, certificates of insurance satisfactory to District evidencing:

- A. Coverage. Coverage for commercial general liability and automobile liability insurance shall be at least as broad as the following:
  - 1. Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 0001)
  - 2. Coverage for Professional Liability appropriate to Consultant's profession covering Consultant's wrongful acts (negligent acts, errors or omissions).
  - 3. Insurance Services Office (ISO) Business Auto Coverage (Form CA

0001), covering Symbol 1 (any auto)

B. Limits. Consultant shall maintain limits no less than the following:

1. General liability - coverage of not less than one million dollars (\$1,000,000) per occurrence or the full per occurrence limits of the policy, whichever is greater for bodily injury, personal injury and property damage; two million dollars (\$2,000,000) general and products-completed operations aggregate (if used)).
2. Professional Liability - coverage of not less than one million dollars (\$1,000,000) per occurrence and two million dollars (\$2,000,000) annual aggregate or the limits of the policies available, whichever is greater.
3. Auto liability - One million dollars (\$1,000,000) for bodily injury and property damage each accident limit.
4. Workers' compensation (statutory limits) and employer's liability - one million dollars (\$1,000,000) (if applicable).

5.2. Required Provisions. The coverages specified in Section 5.1.A. are to contain or be endorsed to contain the following provisions:

- A. The general liability coverage shall give District, its directors, officers, employees, and authorized volunteers insured status (via ISO endorsement at least as broad as CG 2010 1185 or both CG 20 10 and CG 20 37 forms (if later revisions used).
- B. The general liability coverage is to state or be endorsed (with as broad as ISO endorsement CG 20 01) to state "such insurance shall be primary and any insurance, self-insurance or other coverage maintained by District, its directors, officers, employees, or authorized volunteers shall not contribute to it".
- C. Coverage is to be placed with a carrier with an A.M. Best rating of no less than A- : VII, or equivalent, or as otherwise approved by District.
- D. The coverage shall contain no special limitations on the scope of protection afforded to District, its directors, officers, employees, or authorized volunteers.

5.3. Other Requirements.

- A. For any claims arising out of the Services to be performed hereunder pursuant to Exhibit A, Consultant's insurance shall be primary insurance as respects District, its directors, officers, employees, agents and

volunteers.

- B. Any failure to comply with reporting or other provisions of the policies shall not affect coverage provided to District, its directors, officers, employees and volunteers.
- C. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by regular mail has been given to District.
- D. Except for Professional Liability, Consultant's insurance shall be a per-occurrence policy such that Consultant will be insured for all claims filed during or after the termination of the Agreement until all relevant statutes of limitations have expired.
- E. For Professional Liability claims made policy, the retroactive date (if any) is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously after the completion of the contract work. Consultant shall purchase an extended reporting period i) if the retroactive date is advanced past the effective date of this Agreement; ii) if the policy is canceled or not renewed; or iii) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement. Consultant shall provide five (5) year tail on Professional Liability Coverage.
- F. In the event that Consultant employs other Consultants (sub-Consultants) as part of the Services covered by this Agreement, it shall be Consultant's responsibility to require and confirm that each sub-Consultant meets the minimum insurance requirements specified above.
- G. If any of the required coverages expire during the term of this Agreement, Consultant shall deliver the renewal certificate(s) including the general liability additional insured endorsement to District at least ten (10) days prior to the expiration date.

5.4. Deductibles and Self-Insured Retentions. Any deductible or self-insured retention must be declared to and approved by District. At the option of District, the insurer shall either reduce or eliminate such deductibles or self-insured retentions. Any insurance, pooled coverage or self-insurance maintained by District, its directors, officers, employees and volunteers shall not contribute to it.

5.5. Workers' Compensation and Employer's Liability Insurance. Consultant and all subcontractors shall cover or insure all their employees under the applicable laws relating to workers' compensation insurance, regardless of whether such coverage or insurance is mandatory or merely elective under the law. The Workers' Compensation Policy shall be endorsed

with a waiver of subrogation in the favor of the Member Water District for all work performed by the Consultant, its employees, agents and sub-Consultants. Before beginning Services, Consultant shall furnish to District satisfactory proof that he/she has taken out workers' compensation insurance for the period covered by the Services, all in accordance with the Workers' Compensation and Insurance Act, Division IV of the Labor Code of the State of California and any Acts amendatory thereof.

Consultant shall provide employer's liability insurance in the amount of, at least one million dollars (\$1,000,000) per accident for bodily injury and disease. Consultant shall provide District with a certificate of Employer's liability insurance coverage.

5.6. Evidences, Cancellation of Insurance and Continuation of Coverage. Prior to execution of the Agreement, Consultant shall file with District evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. For general liability coverage, such evidence shall include original copies of the additional insured endorsement or policy wording signed by the insurer's representative and certificate of insurance. All evidence of insurance shall be certified by a properly authorized officer, agent or qualified representative of the insurer and shall certify the names of the insured, any additional primary insurers, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, the expiration date, and that the insurer will give by regular mail, written notice to District at least thirty (30) days prior to the effective date of any cancellation of the policy. If any of the required coverages expire during the term of this Agreement, the Consultant shall deliver the renewal certificate(s) including the general liability additional insured endorsement to Member Water District at least ten (10) days prior to the expiration date. The Contractor shall, upon demand of Member Water District deliver evidence of coverage showing continuation of coverage after completion of the project.

## **6.0. TERMINATION:**

This Agreement may be terminated, with or without cause, at any time by District upon 15 days' written notice. In the event of any such termination, District shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of District's written notice of termination unless the termination is for cause, in which event District may withhold any payments due to Consultant until such time as the exact amount of damages, if any, due District from Consultant is determined. Notwithstanding the foregoing, Consultant shall not be relieved of liability to District for damages sustained by District by virtue of any breach of this Agreement by Consultant. Upon such termination, District shall be entitled to all work, including but not limited to Documents & Data under Section 4.1 hereof. The obligations of Section 7 of this Agreement relating to Consultant's obligations to defend and indemnify District shall survive any termination of this Agreement.

## **7.0. INDEMNIFICATION.**

7.1. Claims. Consultant shall indemnify and hold harmless and defend District to the fullest extent permitted by law, its directors, officers, employees or authorized volunteers, and each of them from and against:

- A. Any and all claims, demands, causes of action, damages, costs, expenses, losses or liabilities, in law or in equity, of every kind and nature whatsoever for, but not limited to, injury to or death of any person including Consultant, or any directors, officers, employees or volunteers of District or Consultant, and damages to or destruction of property of any person, including but not limited to, District and/or Consultant and their directors, officers, employees and volunteers, arising out of or in any manner directly or indirectly connected with the Services to be performed under this Agreement, due to Consultant's negligent acts, errors or omissions committed or alleged to have been committed; and
- B. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or in equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Consultant.

7.2. Cooperation. In the event any claim or action is brought against District relating to Consultant's performance of Services rendered under this Agreement, Consultant shall render any reasonable assistance and cooperation, which District might require.

7.3. Defense of Claims. Consultant shall defend, at Consultant's own cost, expense and risk, any and all such aforesaid suits, actions, or other legal proceedings of every kind that may be brought or instituted against District or District's directors, officers, employees or volunteers. In complying with Sections A and B, supra, Consultant may retain and compensate legal counsel selected by or prior approved by the insurance company.

Consultant shall defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of Consultant's performance or non-performance of the Services hereunder, and shall not tender such claims to District nor to its directors, officers, employees, or authorized volunteers, for defense or indemnity.

7.4. Satisfaction of Judgment and Reimbursement to District. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against District or its directors, officers, employees and volunteers, in any such suit, action or other legal proceeding.

Consultant shall reimburse District and its directors, officers, employees and volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided.

7.5. Insurance. Consultant agrees to carry insurance for this purpose as set out in the specifications for the entire duration of this Agreement. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by District, or its directors, officers, employees and volunteers.

## **8.0. GENERAL PROVISIONS**

8.1. Entire Agreement. This Agreement, together with Exhibit "A" supersede any and all other agreements, either oral or in writing, between the parties with respect to the subject



matter herein. This Agreement constitutes the entire Agreement between the parties with respect to any matter referenced herein. This Agreement may not be modified, nor may any of the terms, provisions or conditions be modified or waived or otherwise affected, except by a written amendment signed by all parties. The terms of this Agreement shall prevail over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement. Each party to this Agreement acknowledges that no representation by any party, which is not embodied herein, nor any other agreement; statement or promise not contained in this Agreement shall be valid and binding.

8.2. Non-Exclusive Agreement. District may enter into agreements with others for the Services set forth in this Agreement, or similar to the Services that are subject to this Agreement. Consultant retains the right to perform services for entities other than District.

8.3. Confidentiality. Employees of Consultant in the course of their duties may have access to financial, accounting, statistical, and personnel data of private individuals and employees of District. Consultant covenants that all data, documents, discussion, or other information developed or received by Consultant or provided for performance of this Agreement are deemed confidential and shall not be disclosed by Consultant without written authorization by District. Consultant shall treat any information it may come to have relating to the Agreement with confidence, revealing information to third parties only with prior written approval of District. District shall grant such authorization if disclosure is required by law. All District data shall be returned to District upon the termination of this Agreement. Consultant's covenant under this Section shall survive the termination of this Agreement.

8.4. Assignment. The Agreement shall not be assignable or transferable in whole or in part by Consultant, whether voluntarily or by operation of law provided, however, that Consultant with the prior written consent of District may subcontract that portion of the services for which Consultant does not have the facilities to perform. Any other purported assignment, transfer or subcontracting shall be void. Nothing in the Agreement shall be construed to give any right or benefit to anyone other than District and Consultant.

8.5. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

8.6. Captions and Headings. Captions and headings in the Agreement are solely for convenience in locating certain provisions and shall not be construed as limiting, expanding or otherwise affecting the provisions of this Agreement.

8.8. Notices. Any notice or other communication to either party hereto shall be personally delivered to the party or sent by first class, registered, or certified mail, with postage fully prepaid, or by any recognized overnight delivery service and addressed to District or Consultant at their respective addresses as set forth elsewhere in this Agreement, or to such other address as either party may from time to time designate by notice to the other given in accordance with this paragraph. Any change in the scope of the professional services to be done, method of performance, nature of materials or price thereof, or to any other matter materially affecting the performance or nature of the professional services will not be paid for or accepted

unless such change, addition or deletion is approved in advance, in writing by a supplemental agreement executed by District.

8.8. Attorneys' Fees. In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.

8.9. Ownership of Documents. All Documents & Data furnished or prepared by Consultant or any of its subcontractors in the course of performance of this Agreement shall be and remain the sole property of District, without restriction or limitation upon its use or dissemination by District; no such Documents & Data shall be the subject of a copyright application by Consultant. Consultant agrees that any such Documents & Data shall not be made available to any individual or organization without the prior consent of District. Consultant shall deliver to District all Documents & Data or any other Project related items as requested by District or its authorized representative, at no additional cost to District.

8.10. Order of Precedence. In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of any document, such provision shall be deemed a part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over the document referenced.

8.11. Costs. Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.

8.12. Headings. Paragraphs and subparagraph headings contained in this Agreement are included solely for convenience and are not intended to modify, explain or to be a full or accurate description of the content thereof and shall not in any way affect the meaning or interpretation of this Agreement.

8.13. Construction. The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

8.14. Amendments. Only a writing executed by the parties hereto or their respective successors and assigns may amend this Agreement.

8.15. Waiver. The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a

waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

8.16. Severability. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party, is materially impaired, which determination made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.

8.18. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one Agreement.

8.18. Corporate Authority. The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so the parties hereto are formally bound to the provisions of this Agreement.

8.19. Taxpayer Identification Number. Consultant shall provide District with a complete Request for Taxpayer Identification Number and Certification, Form W 9, as issued by the Internal Revenue Service.

8.20. Change in Name, Ownership or Control. Consultant shall notify District representative, in writing, of any change in name, ownership or control of Consultant. Change of ownership or control of Consultant may require an amendment to the Agreement.

8.21. Covenants and Conditions. Each term and each provision of this Agreement to be performed by Consultant shall be construed to be both a covenant and a condition.

8.22. Use of District's Name. Consultant shall not publish or use any advertising, sales promotion, or publicity in matters relating to services, equipment, products, reports, and material furnished by Consultant in which District's name is used, or its identity implied without District representative's prior written approval.

8.23. Force Majeure. The respective duties and obligations of the parties hereunder shall be suspended while and so long as performance hereto is prevented or impeded by strikes, disturbances, riots, fire, severe weather, government action, war acts, acts of God, or any other cause similar or dissimilar to the foregoing which are beyond the control of the party from whom the affected performance was due.

8.24. Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or result from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

8.25. Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver and perform the Agreement. Each party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and to bind each respective party.

8.26. Notices. Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as follows:

IF TO CONSULTANT

IF TO DISTRICT

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Address: 2020 Research Park Drive, Suite  
100, Davis CA, 95618  
 \_\_\_\_\_

Name: \_\_\_\_\_  
 Title: Water Resources Supervisor  
 Address: 6230 Sylvan Road  
Citrus Heights, CA 95610  
 \_\_\_\_\_

Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile or e-mail with confirmation back to sender; and c) 72 hours after deposit in the U.S. mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

Consultant shall notify District of changes in its address. The failure to do so, if such failure prevents District from locating Consultant, shall be deemed a waiver by Consultant of the right subsequently to enforce those provisions of this Agreement that require consultation or approval of Consultant. Notwithstanding this provision, District shall make every reasonable effort to locate Consultant when matters arise relating to Consultant's rights.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers, as of the date first above written.

Dated: \_\_\_\_\_

CITRUS HEIGHTS WATER DISTRICT

By: \_\_\_\_\_

Hilary M. Straus, General Manager

Citrus Heights Water District

P.O. Box 286

Citrus Heights, CA 95611-0286

Dated: \_\_\_\_\_

West Yost Associates

By: \_\_\_\_\_

Signer's Name and Title

Consultant Name

Consultant Address

Federal ID No. \_\_\_\_\_

Business License Number \_\_\_\_\_ (City of  
\_\_\_\_\_)



**CITRUS  
HEIGHTS  
WATER  
DISTRICT**

## MEMORANDUM

**To:** Board of Directors  
**From:** Rex Meurer, Water Efficiency Supervisor  
**Date:** December 13, 2016  
**Subject:** **State Water Board—Conservation Regulation Updates (D/A)**

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Staff will provide an update on the proposed State water efficiency regulations pertaining to Executive Order B-37-16. Accompanying this transmittal memorandum is the proposed State regulations, entitled “Making Conservation A California Way of Life.” Comments are due on the proposed State regulations to the Water Board by December 19, 2016.

Staff will be attending an information and regional coordination meeting at the Sacramento Regional Water Authority (RWA) on December 9<sup>th</sup>. At that meeting, a regional response to the proposed State regulations will be discussed.

Further, staff anticipates presenting an agency-specific response letter to the State Water Board at the December 13<sup>th</sup> meeting for Board discussion and possible action.



# Making Water Conservation a California Way of Life

## Implementing Executive Order B-37-16

PUBLIC REVIEW DRAFT  
November 2016



This report was prepared by the California Department of Water Resources, State Water Resources Control Board, California Public Utilities Commission, California Department of Food and Agriculture, and California Energy Commission in response to Governor Edmund G. Brown Jr's Executive Order B-37-16 and to provide information to the California Legislature and the public.

This report is available in electronic form:  
<http://www.water.ca.gov/wateruseefficiency/conservation/>

**Edmund G. Brown Jr.**

Governor  
State of California

**Mark W. Cowin**

Director  
California Department of Water Resources

**Felicia Marcus**

Chair  
State Water Resources Control Board

**Michael Picker**

President  
California Public Utilities Commission

**Karen Ross**

Secretary  
California Department of Food and Agriculture

**Robert B. Weisenmiller**

Chair  
California Energy Commission



# Executive Summary

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*Water resource management in California faces unprecedented challenges from climate change and a growing population. In the years ahead, the task of managing water to maintain vibrant ecosystems while supporting a robust economy will require the collective and concerted efforts of state and local governments, non-governmental organizations, businesses, and the public. Increased conservation and water use efficiency are needed to ensure the resilience of our water supplies to increasingly severe droughts and other impacts of climate change.*

California is currently in the grips of an extreme drought with record low precipitation. This five-year drought has caused severe impacts across the State, including community water sources running dry, the loss of agricultural production and jobs, depletion of groundwater basins, widespread tree death, and impacts to fish and wildlife. While most urban areas have been spared from water rationing, emergency conservation has provided a critical safeguard against more dire consequences under extended drought conditions. After Governor Edmund G. Brown, Jr. called for a 25 percent reduction in urban water use in 2015, Californians rose to the challenge and saved over 24 percent during the nine months the mandate was in place.

Executive Order B-37-16, signed by Governor Brown on May 9, 2016, builds on that success to establish long-term water conservation measures and improved planning for more frequent and severe droughts. The centerpiece of the Executive Order is a requirement for the State's 410 urban water suppliers to meet new water use targets. Rather than measuring water savings as a percentage reduction from a chosen baseline, the new standards will take into account the unique climatic, demographic and land-use characteristics of each urban water agency's service area. This approach represents a fundamental shift to a conservation framework that is more durable and that can be applied equitably and uniformly across the enormous variation in local conditions in California. The new targets will ensure all urban water is used efficiently and will facilitate conservation measures such as conversion to California-friendly landscapes, replacement of inefficient fixtures and appliances, and reductions in system leakage.

Other aspects of the proposed conservation framework will:

- Provide greater consistency among water suppliers statewide in the elements of Urban Water Management Plans, Water Shortage Contingency Plans, and Agricultural Water Management Plans; and continue work with counties to improve drought planning in small communities and rural areas;
- Enable water suppliers to customize their water management strategies and plan implementation to regional and local conditions;
- Empower water suppliers to take a place-based response to water shortages caused by drought or other water emergencies, while planning for longer drought cycles; and
- Incentivize and set standards for the use of new technologies and practices to reduce leaks.

This next generation of water efficiency and conservation will fulfill the first directive of the California Water Action Plan, to “Make Conservation a California Way of Life.” Improved water efficiency will also support the State’s ambitious climate change goals by reducing energy use and greenhouse gas emissions associated with water use and by building resilience to future droughts.

Five state agencies – the Department of Water Resources, the State Water Resources Control Board, the California Public Utilities Commission, the California Department of Food and Agriculture, and the California Energy Commission (collectively referred to as the “EO Agencies”) – are charged with implementing the Executive Order’s four inter-related objectives: using water more wisely, eliminating water waste, strengthening local drought resilience, and improving agricultural water use efficiency and drought planning. Collectively, the EO Agencies will be undertaking a suite of actions that can be implemented using existing authorities, ranging from rulemaking proceedings to expanded technical assistance, to evaluation and certification of new technologies to implement the four objectives. Where necessary, the EO Agencies also recommend additional actions, authorities, and resources necessary to meet EO requirements that cannot be implemented within existing authorities.

The EO Agencies employed a robust stakeholder engagement process, which commenced with a series of public listening sessions in June 2016. The EO Agencies also convened two stakeholder advisory groups – an Urban Advisory Group and an Agricultural Advisory Group – comprised of specific stakeholder types identified in the Executive Order, as well as additional interests such as disadvantaged communities / environmental justice advocates, academia, industry, professional associations, environmental advocacy groups, and others. These meetings were open to the public and used to solicit input for EO Agency consideration. The EO Agencies will continue to solicit stakeholder and public input, make use of technical experts, and provide assistance to successfully implement this long-term framework for water conservation.

Under the proposed framework, the EO Agencies and water suppliers would meet the Executive Order’s objectives through the following actions.

**Executive Order B-37-16 contains four inter-related objectives:**



Using Water More Wisely



Eliminating Water Waste



Strengthening Local Drought Resilience



Improving Agricultural Water Use Efficiency and Drought Planning



## Using Water More Wisely

**Emergency Conservation Regulations (Executive Order Item 1):** The State Water Resources Control Board (Water Board) will extend its current emergency water conservation regulation, which is in effect through February 2017, for an additional 270 days based on supply conditions and water conservation levels. The Water Board will hold a public workshop and propose extended emergency regulations in January 2017, if necessary.

**New Water Use Targets (Executive Order Items 2 and 6):** Upon statutory authorization, the EO Agencies will adopt new water use standards for all urban water use and a new urban water use target methodology. Urban water suppliers would, in turn, be required to calculate their unique water use targets based on those standards and local conditions. The EO agencies will establish

interim targets that are applicable starting in 2018, and require full compliance with final targets by 2025. This report proposes a timeline for the EO Agencies to establish final water use standards. The report also documents the process to develop standards; reporting and compliance requirements; and assistance to be provided by the EO Agencies. Additional legal authority would be required for successful implementation.

**Permanent Monthly Reporting (Executive Order Item 3):** The Water Board will open a rulemaking process to establish permanent monthly urban water reporting on water usage, amount of conservation achieved, and any enforcement efforts. The rulemaking will start at the end of 2016 and run through 2017, concurrently with EO Item 4, below.



## Eliminating Water Waste

**Water Use Prohibitions (Executive Order Item 4):** The Water Board will open a rulemaking process to establish permanent prohibitions on wasteful water practices, building on the current prohibited uses in the emergency regulation. The rulemaking will start at the end of 2016 and run through 2017, concurrently with EO Item 3.

**Minimizing Water Loss (Executive Order Items 5 and 6):** The EO Agencies will meet the requirements of EO Items 5 and 6 through implementation of Senate Bill 555, along with additional actions to satisfy the Executive Order's directives related to reducing water supplier leaks. Implementation actions include the following:

- **Rules for validated water loss audit reports:** By October 1, 2017 and annually thereafter, urban retail water suppliers must submit validated water loss audit reports to the Department of Water Resources (DWR). DWR will adopt rules for standardizing water loss audits in early 2017. DWR will also revise funding guidelines so that water suppliers that do not submit reports will be ineligible for DWR grants and loans.
- **Water loss performance standards:** By July 1, 2020, the Water Board will adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses.
- **Technical assistance for water loss audits:** The Water Board is also funding the California Water Loss Control Collaborative's Technical Assistance Program to ensure high quality and properly validated water loss audits. For smaller water suppliers addressing water losses, the Water Board will offer financial assistance through the Drinking Water State Revolving Fund beginning in 2017.
- **Minimizing leaks:** The California Public Utilities Commission (CPUC) will order large, investor-owned water utilities to accelerate work to minimize leaks. The CPUC may grant financial incentives for minimizing leaks during the review of each utility's upcoming General Rate Case applications.

**Innovative Water Loss & Control Technologies (Executive Order Item 7):** The California Energy Commission (CEC) is evaluating various options for certification of water loss detection and control technologies at utility, household, and appliance levels. The CEC is also making investments in research and funding programs for water saving devices and technologies.

## Strengthening Local Drought Resilience

**Water Shortage Contingency Plans (Executive Order Items 8, 9, and 6):** Upon statutory authorization, urban water suppliers will be required to submit a Water Shortage Contingency Plan and conduct a 5-year Drought Risk Assessment every five years, and conduct and submit a water budget forecast annually. The EO Agencies will establish appropriate compliance and reporting criteria, and provide assistance to urban suppliers for meeting the requirements. Additional authorities would be required for successful implementation.

**Drought Contingency Planning for Small Water Suppliers and Rural Communities (Executive Order Item 10):** The EO Agencies' recommendations focus on improving drought vulnerability assessment and proactive actions, and supplier readiness and responsiveness during drought conditions. Currently, the recommendations focus on pathways for the EO Agencies to continue to work with counties to develop more specific, functional recommendations, which would be expected to continue into 2017. Additional authorities and funding may be required for successful implementation.

## Improving Agricultural Water Use Efficiency and Drought Planning





**Strengthened Agricultural Water Management Plan Requirements (Executive Order Items 11, 12, 13, and 6):** Upon statutory authorization, agricultural water suppliers will be required to: (1) develop an annual water budget for the agricultural water service area, (2) identify agricultural water management objectives and implementation plans, (3) quantify measures to increase water use efficiency, and (4) develop an adequate drought plan for periods of limited supply. The proposal would expand existing requirements to require agricultural water suppliers providing water to over 10,000 irrigated acres of land to prepare, adopt, and submit plans by April 1, 2021, and every five years thereafter. Agricultural water suppliers would also be required to submit an annual report to DWR by April 1 of each year that documents water budget inflow and outflow components in the water budget for the preceding water year. Expanded authorities would be required for successful implementation.



Table ES-1 summarizes the organization of the conservation framework presented in this report and the corresponding Executive Order items. For each component, the report describes the need for change, the vision for accomplishing the change, and specific actions required to realize the vision. Given the need for additional authorities, the Legislature has a critical role in successful implementation of the Executive Order.

Setting and meeting the conservation and efficiency goals described in this report represents a major step forward towards long-term water security. The framework supports the development of increased resiliency, more efficient water use, stronger water management portfolios and more robust financial systems. With the support of our businesses and residents, water agencies, environmental organizations, schools and universities, elected officials and others, we can keep California healthy, beautiful, and vibrant for decades to come.

Table ES-1. Actions and Recommendations Summarized in this Report

Chapter Section and Title where Item is Addressed	Executive Order Items													Within Existing Authorities (Chapter 2)	Requires New Authority (Chapter 3)
	 Use Water More Wisely			 Eliminate Water Waste				 Strengthen Local Drought Resilience			 Improve Agricultural Water Use Efficiency & Drought Planning				
	1	2	3	4	5	6	7	8	9	10	11	12	13		
2.1 Emergency Water Conservation Regulations for 2017	●													✓	
2.2 Permanent Prohibition of Wasteful Practices			●	●										✓	
2.3 Reduced Water Supplier Leaks and Water Losses					●	●								✓	
2.4 Certification of Innovative Technologies for Water Conservation and Energy Efficiency							●							✓	
3.1 New Water Use Targets Based on Strengthened Standards		●				●									✓
3.2 Water Shortage Contingency Plans						●		●	●						✓
3.3 Drought Planning for Small Systems & Rural Communities										●					✓
3.4 Agricultural Water Management Plans						●					●	●	●		✓

Note: The Executive Order directs DWR, Water Board, and CPUC to develop methods to ensure compliance with the provisions of the order, including technical and financial assistance, agency oversight, and, if necessary, enforcement action by the Water Board to address non-compliant water suppliers. These are described in Chapters 2 and 3.

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# Acronyms and Abbreviations

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20x2020	20 percent reduction in urban per capita water use by 2020
20x2020 Plan	20x2020 Water Conservation Plan
AB	Assembly Bill
AU	Agronomic Use
AW	Applied Water
AWMP	Agricultural Water Management Plan
AWUF	Agronomic Water Use Fraction
AWWA	American Water Works Association
BMP	best management practice
CASGEM	California Statewide Groundwater Elevation Monitoring
CCF	centum cubic feet
CCR	California Code of Regulations
CCUF	Crop Consumptive Use Fraction
CDFA	California Department of Food and Agriculture
CEC	California Energy Commission
CII	commercial, industrial, and institutional
CIMIS	California Irrigation Management Information System
CPUC	California Public Utilities Commission
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
DWR	California Department of Water Resources
E	evaporation
EO	Executive Order B-37-16
EO Agencies	California Department of Water Resources, State Water Resources Control Board, California Department of Food and Agriculture, California Public Utilities Commission, California Energy Commission
EPIC	Electric Program Investment Charge
ET <sub>o</sub>	Reference evapotranspiration
ET <sub>c</sub>	evapotranspiration of crops
ETAF	Evapotranspiration Adjustment Factor



ETAW	Evapotranspiration of Applied Water
EU	Environmental Use
EWMP	Efficient Water Management Practice
GPCD	gallons per capita per day
GRC	General Rate Case
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
MOU	Memorandum of Understanding
MWELO	Model Water Efficient Landscape Ordinance
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
RF	Recoverable Flows
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
SRA	Shortage Response Action
SWRCB or Water Board	State Water Resources Control Board
TWUF	Total Water Use Fraction
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
Water Action Plan	California Water Action Plan
Water Loss TAP	California Water Loss Control Collaborative' s Technical Assistance Program
WET	Water Energy Technology
WMF	Water Management Fraction
WSCP	Water Shortage Contingency Plan

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# Chapter 1 – Introduction

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*Water has been a scarce resource in California, and conservation must become a way of life for everyone. Much has changed in the past half century, and our technology, values, and awareness of how we use water have helped to integrate conservation into our daily lives. More can be done, however, and all Californians must embrace and make part of their daily lives the principles of wise water use.*

Water has played a significant role in California’s history and development. Droughts have often marked critical shifts or tipping points in water resources management, altering how citizens and elected officials view and manage water. Over time, an awareness of water use and water conservation has evolved that has fueled best management practices, funding programs, and legislative and regulatory actions.

California droughts are expected to become more frequent and persistent, as warmer winter temperatures driven by climate change reduce water held in the Sierra Nevada snowpack and result in drier soil conditions. Current drought conditions, which severely impacted the State over the last several years, may persist in some parts of the State into 2017 and beyond. Recognizing these new conditions, permanent changes are needed to use water more wisely and efficiently, and prepare for more frequent, persistent periods of limited supply in all communities and for all water uses, including fish, wildlife, and their habitat needs.

This chapter describes Executive Order B-37-16 (EO), provides a brief summary of California’s evolving awareness of and actions relating to drought preparedness and response, and describes the proposed framework for realizing conservation as a California way of life.

## 1.1 Executive Order B-37-16

Moving to bolster California’s climate and drought resilience, Governor Edmund G. Brown Jr. issued the EO on May 9, 2016. The EO builds on temporary statewide emergency conservation

requirements and tasks State agencies with establishing a long-term framework water conservation and drought planning, including permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans.

The EO directs the California Department of Water Resources (DWR), State Water Resources Control Board (Water Board), California Department of Food and Agriculture (CDFA), California Public Utilities Commission (CPUC), and California Energy Commission (CEC) – collectively referred to as the “EO Agencies” – to summarize in a report a framework for implementing the EO and incorporating water conservation as a way of life for all Californians.

The framework described herein promotes efficient use of the State’s water resources in all communities, whether conditions are wet or dry, and prepares the State for longer and more severe drought cycles that will mark our future. The EO directs DWR, the Water Board, and CPUC to develop methods to ensure compliance with the provisions of the EO, including technical and financial assistance, agency oversight, and enforcement action by the Water Board to address non-compliant water suppliers, if necessary.

The full text of the EO can be found as Attachment A and at [https://www.gov.ca.gov/docs/5.9.16\\_Attested\\_Drought\\_Order.pdf](https://www.gov.ca.gov/docs/5.9.16_Attested_Drought_Order.pdf).

The actions directed in the EO are organized around four primary objectives: (1) use water more wisely, (2) eliminate water waste, (3) strengthen local drought resilience, and (4) improve agricultural water use efficiency and drought planning.



#### *Use Water More Wisely*

The EO calls for DWR and the Water Board to require monthly reporting by urban water suppliers on a permanent basis.<sup>1</sup> This includes information regarding water use, conservation, and enforcement.

It also directs DWR and the Water Board to develop new water use efficiency targets as part of a long-term conservation framework for urban retail water agencies – through a public process and working with partners such as urban water suppliers, local governments, and environmental groups. These targets are to go beyond the 20 percent reduction in per capita urban water use by 2020 that was embodied in Senate Bill (SB) X7-7<sup>2</sup>, and are to be customized to fit the unique conditions of urban water suppliers.

The Water Board is also directed to adjust emergency water conservation regulations through the end of January 2017, in recognition of the differing water supply conditions across the State, and develop proposed emergency water restrictions for 2017 should the drought persist.

The “Use Water More Wisely” objective includes EO Items 1, 2, and 3.



#### *Eliminate Water Waste*

The EO calls for the Water Board to permanently prohibit wasteful practices, consistent with temporary, emergency prohibitions that were put in place in July 2014. These practices include hosing off sidewalks, driveways, and other hardscapes; washing

automobiles with hoses not equipped with a shut-off nozzle; and watering lawns in a manner that causes runoff.

The Water Board and DWR are also directed to take actions to minimize water system leaks across the State. DWR estimates that leaks in water distribution systems siphon away more than 700,000 acre-feet of water a year in California – enough to supply 1.4 million homes for a year. Audits of urban water systems have found that leaks account for an average loss of 10 percent of their total supplies.

The CPUC is directed to prepare a consistent resolution for implementation by its investor-owned utilities. The CPUC is not in a regulatory capacity; see Section 2.3 for information on this directive.

The “Eliminate Water Waste” objective includes EO Items 4, 5, 6, and 7.



#### *Strengthen Local Drought Resilience*

DWR is directed to consult with urban water suppliers, local governments, environmental groups and other partners to strengthen standards for local Water Shortage Contingency Plans (WSCP) that are part of the Urban Water Management Plans (UWMP) that urban water suppliers must submit every five years. These strengthened standards will promote planning for adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. For areas not covered by WSCPs, DWR is directed to work with counties to improve drought planning for small water suppliers and rural communities.

The “Strengthen Local Drought Resilience” objective includes EO Items 8, 9, and 10.

<sup>1</sup> This applies to urban retail water suppliers only as they provide water directly to end users (as opposed to wholesalers that do not provide water directly to end users).

<sup>2</sup> The Water Conservation Act of 2009.



*Improve Agricultural Water Use Efficiency and Drought Planning*  
 Current law requires agricultural water suppliers serving

25,000 irrigated acres or more to file Agricultural Water Management Plans (AWMP). In the EO, DWR is directed to update existing requirements for these plans, including requiring suppliers of irrigation water to quantify their customers' water use efficiency and plan for water supply shortages and periods of drought. DWR is directed to work with CDFA to seek public input on the updated requirements. The EO also increases the number of agricultural water suppliers that must file AWMPs by lowering the threshold to those serving 10,000 irrigated acres or more.

The “Improve Agricultural Water Use Efficiency and Drought Planning” objective includes EO Items 11, 12, and 13.

## 1.2 Evolution of Water Conservation in California

California has experienced several major droughts throughout its recorded history. In response to the State’s highly variable and seasonal climate, Californians have developed hundreds of water projects and programs – at local, regional, and statewide scales – while learning to adapt to periodic droughts and other hydrologic extremes. Growing awareness of the critical role water plays in the State’s economy, health and safety, and environment has precipitated legislative actions and funding programs that have fundamentally transformed the way California’s greatest resource – water – is managed.

### 1.2.1 Historical Droughts

One of the most extreme examples of drought in California occurred in 1976 and 1977, with the 1976 water year ranking as the driest on record and the 1977 water year ranking among the top



five driest in California’s recorded history. However, while the drought caused unprecedented shortages in the municipal, industrial, and agricultural water sectors, the 1976-1977 drought is often credited with initiating an era of water conservation awareness in California, the results of which are still evident today, including formation of a drought emergency task force and emergency conservation actions. The 1976-1977 drought also caused numerous legislative proposals to be submitted, all with the goal of increasing California’s drought responses and resiliency.

Other statewide droughts that have occurred in recent history include the 1987-1992 drought and the 2007-2009 drought. These droughts affected all communities and types of water users, and led to many of the requirements and guidelines in place during the recent drought. 2012 through 2014 are on record as California’s driest three consecutive years and 2013 was the driest single year of record in numerous communities across the State, triggering numerous emergency actions at State and local levels.

### 1.2.2 Resulting Statewide Water Conservation and Related Water Management Planning Efforts

The State’s arid climate and history of drought have prompted a variety of programs, actions, and efforts geared toward preparing for and responding

to periods of low water availability. The following highlights some of the key events and actions that have marked this evolution of conservation and water use efficiency in California in recent decades.

### *Water Conservation Act of 2009*

California became the first state to adopt a water use efficiency target with the passage of SB X7-7 in 2009. SB X7-7 mandated the State achieve a 20 percent reduction in urban per capita water use by 2020. The reduction goal is also known as “20x2020.” SB X7-7 directed water suppliers to develop individual targets for water use based on an historical per capita baseline.

The 20x2020 Water Conservation Plan (20x2020 Plan) set forth a statewide road map to maximize the State’s urban water efficiency and conservation opportunities between 2009 and 2020, and beyond. The recommendations acknowledged that agricultural water use efficiency must be also improved.

### **What is Drought?**

*Drought can be defined in many ways, and there is no statutory process in California for defining or declaring a drought. Drought can be described in meteorological terms (a period of below normal precipitation), in hydrologic terms (a period of below average runoff), or in more qualitative terms (shortage of water for a particular purpose). Drought can be any length of time – spanning a single water year or multiple years – and rarely affects all water users or geographies equally. For example, one part of the State may experience severe drought conditions while another experiences a year of above normal rainfall. The economic, social, and environmental impacts of drought have changed over time as the State’s population has grown and our extensive system of water infrastructure has evolved.*

Implementation of the 20x2020 Plan includes three phases: (1) completion of the 20x2020 Plan (2009 through 2010); (2) implementation, monitoring, evaluating, and making adjustments (2011 through 2020); and (3) performance evaluation based on improvements from established baseline values for each supplier.

### *Mandatory Conservation, Water Use Prohibitions, and Other Water Saving Measures during the Recent Drought*

As a statewide drought progressed during 2014 and into 2015, California took unprecedented steps to preserve its water supply. With issuance of an emergency drought proclamation by the Governor in 2014, the Water Board was directed to collect monthly water use data from the State’s urban water suppliers. The proclamation also called on Californians to voluntarily conserve water, with a goal of reducing water use by 20 percent when compared to pre-drought water use (2013). However, the collected data showed that voluntary statewide conservation efforts had reached 9 percent – an effort that saved billions of gallons of water, but was well short of the 20 percent goal.

With drought conditions worsening, and the 2014-2015 water year snowpack the lowest in the State’s history, the Governor’s April 1, 2015 Executive Order (EO B-29-15) directed the Water Board to develop emergency water conservation regulations to implement mandatory water reductions in cities and towns across California. EO B-29-15 also set a goal to reduce potable urban water usage by 25 percent statewide. The Water Board’s adoption of the May 2015 drought emergency regulation set mandatory reductions in potable urban water use between June 2015 and February 2016 by identifying a conservation tier for each urban water supplier, based on residential per capita water use for the months of July – September 2014. Conservation tiers ranged from 4 percent to 36 percent.

Under these emergency urban water conservation regulations, statewide cumulative savings from June 2015 to March 2016 totaled 23.9 percent

compared with the same months in 2013. Statewide average water use lowered to 66 residential gallons per capita per day (GPCD) in March 2016, saving nearly 1.3 million acre-feet of water from June 2015 through March 2016.

Recognizing persistent yet less severe drought conditions during the 2015-2016 water year, the Water Board modified and extended its emergency regulation in May 2016. This new approach allowed suppliers to replace their prior percentage reduction-based water conservation standard with a localized “stress test,” where they could demonstrate whether a supply shortfall would develop under three additional drought years. Mandatory conservation levels were set for suppliers with projected shortfalls following three additional dry years. Alternatively, suppliers could keep their pre-existing mandatory conservation standard rather than adopting a stress-test conservation standard.

In addition to State-mandated conservation standards, the Water Boards’ emergency regulations have specific prohibitions against certain water uses. Those prohibitions include watering down a sidewalk with a hose instead of using a broom or a brush, and overwatering a landscape to where water is running off the lawn, over a sidewalk, and into the gutter.

In total, the Water Board’s emergency regulations have resulted in conservation of over 2.15 million acre-feet of water, enough to supply over 10 million people for a year.

EO B-29-15 also called on DWR to establish additional water saving measures, including:

- A statewide initiative to replace 50 million square feet of lawns with drought tolerant landscapes.
- A time-limited statewide toilet replacement and appliance rebate program with the CEC.
- Updating the State Model Water Efficient Landscape Ordinance (MWELO).

- Additional requirements for AWMPs.

DWR quickly established rebate and direct installation programs for both lawn conversion and the replacement of older toilets with high efficiency toilets. In addition, DWR collaborated with nonprofits to provide over 230 workshops statewide on landscape and irrigation efficiency, turf replacement, high efficiency toilet replacement, water management planning for agricultural and urban water suppliers, and conveyance system audit and leak detection for small water systems, rural communities, agricultural water suppliers and tribal governments.



DWR developed and sponsored a key exhibit at the California State Fair, providing hands-on advice to homeowners on lawn conversion and water saving measures.

### *Indoor and Outdoor Water Use Efficiency*

Landscaping typically accounts for over half of residential water demand, and was the focus of some of the State’s earliest efforts related to water use efficiency. Passed in 1990, Assembly Bill (AB) 325, the Water Conservation in Landscaping Act, directed DWR to develop MWELO. Initially drafted in 1992 and updated in 2010, the MWELO established a water budget for new construction and certain rehabilitated landscapes. Local agencies were required to adopt the MWELO or a local ordinance at least as effective as the State ordinance. The MWELO was updated in 2015 in response to EO B-29-15. AB 2515 requires DWR to update the MWELO every three years if needed.

### CONSERVATION versus EFFICIENCY

*The terms water conservation and water use efficiency are often used interchangeably. As used in this report, water conservation is defined as a reduction in water loss, waste, or use. The general term water conservation may include water use efficiency, in which more water-related tasks are accomplished with lesser amounts of water.*

Indoor water use has also prompted action at State and federal levels. The efficiency of water fixtures used in California residential dwellings and commercial buildings is being improved through updated requirements in the California Plumbing Code (Part 5 of the California Building Standards Code) per requirements in SB 407 of 2009 and AB 715 of 2007. In addition, new construction is subject to the requirements of the California Green Building Standards Code (Part 11 of the California Building Standards Code) that requires water fixture efficiency exceeding the existing national standards set forth by U.S. Environmental Protection Agency (USEPA) and U.S. Department of Energy. Concurrently, the CEC is updating its Appliance Efficiency Regulations to include stronger standards for fixtures sold in the State.

#### *Water Management Planning and Funding*

Conservation and water use efficiency are foundational water management tools that, along with diverse regional and statewide water portfolios, help to ensure adequate and reliable water supplies for all uses. Conservation and water use efficiency are prominent in State water management plans, integrated regional water management plans, the plans of urban and agricultural suppliers, and various associated funding programs.

The California Water Plan Update 2013 highlighted water conservation as one of 17 statewide water

management objectives, and emphasized urban water conservation as a water management strategy that will be most effective at matching supply with demand. The plan recognized urban water conservation as the foundation for achieving the 20x2020 mandate.

Conservation and drought protection are also two of the focus areas of the 2014 California Water Action Plan (Water Action Plan)<sup>3</sup> and Water Action Plan 2016 Update. Making water conservation a California way of life is the first action identified in the plan, along with integrated water management, Sacramento-San Joaquin Delta management, ecosystem restoration, storage, and flood protection.

Water conservation in California has gained support from a series of State grant programs to provide important financial assistance required to implement conservation programs. Those State grant programs include funding from Proposition 13 (2000, \$565 million), Proposition 50 (2002, \$680 million), Proposition 84 (2006, \$1.2 billion), and Proposition 1 (2014, \$810 million).

Various federal agencies also provide conservation and drought funding, including the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) and the USEPA. Reclamation's drought and conservation grant program, WaterSMART, provides assistance to water users for drought contingency planning, including climate change and actions that build towards long-term drought resiliency. USEPA provides loans to eligible recipients for various infrastructure and conservation projects through the Clean Water State Revolving Fund, which is managed and administered by the Water Board in California.

<sup>3</sup> *California Water Action Plan*. California Natural Resources Agency. January 2014.



### California Water Action Plan

*The Water Action Plan provides a roadmap for sustainable water management. It has guided the work of numerous State agencies and prioritized funding at the State level, and provided the groundwork for several important bills and legislation necessary to manage California’s water supply during droughts.*

*Building on the 2014 plan, the 2016 Update describes 10 key actions to align State efforts and investments to ensure reliable water supplies in the future. The first action is to “make conservation a California way of life.” To this end, the Water Action Plan includes several specific components:*

- *Expand agricultural and urban water conservation and efficiency to exceed SB X7-7 targets*
- *Provide funding for conservation and efficiency*
- *Increase coordinated water energy efficiency and greenhouse gas reduction capacity*
- *Promote local urban conservation ordinances and programs*

*The Water Action Plan also provides direction on planning activities to better prepare for droughts in the future, including preparation of drought contingency plans and water shortage contingency plans.*

### Groundwater Sustainability

Groundwater is an important component of California’s water supply, particularly in dry years. The Sustainable Groundwater Management Act (SGMA) requires development of specialized groundwater sustainability plans in each region to support a more reliable and resilient water supply

portfolio for the State as a whole. It is common for rural communities, small systems, and agriculture to rely heavily on groundwater, including private wells, to meet their supply needs. Consequently, SGMA and its implementation could have significant effects on water conservation, water use efficiency, and long-term water supply reliability.

### 1.2.3 Recent Drought Actions and Effects

In recent years, dry conditions throughout the State have underscored the importance of water conservation and achieving greater climate and drought resilience and preparedness.

2012 through 2014 are on record as California’s driest three consecutive years with respect to statewide precipitation. 2013 was the driest on record in numerous communities across the State, including San Francisco, Sacramento, and Los Angeles. Parts of Northern California had no measurable precipitation for more than 50 consecutive days during winter months that historically see the year’s highest precipitation totals. Reservoirs remained low in the spring, and groundwater pumping increased dramatically throughout the State as surface water supplies became limited or unavailable.

Persistent dry conditions prompted a series of Executive Orders from 2014 through 2016 that have guided California’s drought response. The Governor proclaimed a State of Emergency on January 17, 2014. This drought proclamation directed State agencies to take specified actions and requested that Californians voluntarily reduce their water usage by 20 percent compared with the 2013 baseline. Following the 2014 emergency declaration, the Governor and State Legislature worked closely to secure and accelerate appropriation of funding for drought-related actions.<sup>4</sup>

<sup>4</sup> Emergency drought legislation contained in Senate Bills 103 and 104 provided \$687 million to assist drought-stricken communities and implement projects to better capture, manage and use water resources. Over \$400

million was provided through Proposition 84 bond funds for grants to local agencies for integrated regional water management projects, including projects that strengthened water conservation. Additional drought funding was also

Subsequent Executive Orders directed local urban water suppliers to immediately implement water shortage contingency plans, ordered the State's drinking water program to target communities in danger of running out of water, and supported the Water Board to administer various water rights actions, including curtailments and mandatory conservation (described earlier in this chapter).

In addition, the Water Action Plan provided guidance to State agencies to better align their priorities related to water resources management, including long-term drought resilience and response. The plan and its 2016 Update have facilitated the Governor and State Legislature's engagement in several key legislative efforts, subsequent bond initiatives, and state budgeting efforts.

#### Californians Respond

Californians demonstrated their inherent resilience and ability to conserve water and adapt to changing conditions. Between June 2015 and March 2016, urban water systems reduced water use by 23.9 percent, saving enough water to provide 6.5 million residents with water for one year.

*"Californians stepped up during this drought and saved more water than ever before, but now we know that drought is becoming a regular occurrence and water conservation must be a part of our everyday life."*

Governor Edmund G. Brown Jr.

The recent drought related actions and response activities culminated in Executive Order B-37-16 in May 2016. The EO builds on the conservation successes achieved in recent years to establish long-term water conservation measures and improve proactive drought planning and response.

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included in subsequent State budgets (<http://www.ebudget.ca.gov/>).

The impacts of the current drought have been severe, characterized by limited or exhausted drinking water supplies in some communities, lost agricultural production and jobs, severely depleted groundwater basins, and significant harm to native habitats and species. Despite Californians responding to the call to conserve water, more frequent and extended dry periods are anticipated under our changing climate, which will be characterized by warmer winter temperatures and reduced water supplies held in mountain snowpack.

The effects of drought are likely to intensify in the future as the State population continues to grow and competition for water resources intensifies. It is recognized that permanent reductions in per capita water use, and increases in water use efficiency across all sectors, will be needed to ensure long-term water supply reliability for the State. It is also acknowledged that new goals and targets will be needed that go beyond 2020 to support continued economic prosperity and healthy ecosystems, while adapting to changing climate.

### 1.3 Framework for Realizing Water Conservation as a California Way of Life

This document was prepared to satisfy the Governor's directive to publish a draft framework for implementation of the EO by January 10, 2017. This report was prepared to inform the Governor, the California Legislature, and the public of the actions and recommendations of the EO Agencies in implementing the EO. Water suppliers that may be affected by the EO may use this document to better understand the proposed requirements and when those requirements could go into effect.

This section describes the process used by EO Agencies in developing the conservation

framework to satisfy the EO, including public and stakeholder engagement.

### 1.3.1 Satisfying Executive Order B-37-16

The EO Agencies have worked collaboratively to identify actions and recommendations that can satisfy the directives in the EO, and identify a timeline for their implementation. Underlying this process was the intent to provide:

- **Clarity** in the new requirements;
- **Flexibility** for retail water suppliers in carrying out their local responsibilities;
- **Transparency** in desired conservation outcomes and accountability; and
- A rational means for **tracking progress** over time.

The intent of the long-term conservation framework is to:

- Establish greater consistency in the elements of UWMPs, WSCPs, and AWMPs among water suppliers statewide.
- Enable water suppliers to customize water management strategies and plan implementation to regional and local conditions.
- Empower water suppliers to take a place-based response to water shortages caused by drought or other emergencies.

The EO Agencies coordinated closely in developing the recommendations for implementing the EO. This included forming cross-agency teams at agency leadership, management, and project staff levels. These teams met regularly to share progress, discuss proposals, and develop the report.

### 1.3.2 Public Outreach and Stakeholder Engagement

EO Agencies developed a collaborative program to formulate the long-term framework for water conservation and drought planning with extensive public outreach and stakeholder engagement (see also Attachment B).

#### *Public Listening Sessions*

The EO Agencies hosted a series of public listening sessions in Northern, Central, and Southern California in June 2016. These sessions provided an overview of the EO and solicited early stakeholder input.

#### *Stakeholder Advisory Groups*

The EO directs DWR, the Water Board, and CDFG to “consult with urban water suppliers, local governments, environmental groups, agricultural water suppliers and agricultural producers, and other partners” in carrying out several of the directives: Use Water More Wisely, Strengthen Local Drought Resilience, Eliminate Water Waste, and Improve Agricultural Water Use Efficiency and Drought Planning.

To this end, an Urban Advisory Group and an Agricultural Advisory Group were formed in July 2016 to advise the EO Agencies, solicit input on the recommendations and associated methodologies, and exchange information. Advisory Group members were invited to provide broad representation including urban water suppliers, agricultural water suppliers, local government, academia, professional organizations, environmental advocates, and other interested parties.

### 1.3.3 Framework Components

This report describes actions and recommendations for implementing the EO.

- **Actions** are efforts that have been or may be undertaken within existing authorities to implement portions of the EO. Actions that can be implemented under existing policy or

regulatory authorities include potential 2017 emergency water conservation regulations, permanent restrictions on water waste, efforts to reduce water supplier leaks and system losses, and certification of innovative technologies for water and energy conservation.

- **Recommendations** are efforts proposed by the EO Agencies that may be undertaken to implement portions of the EO but that will require additional authorities. Recommendations include new water use targets, water shortage contingency plans, drought planning for small systems and rural communities, and agricultural management plans.

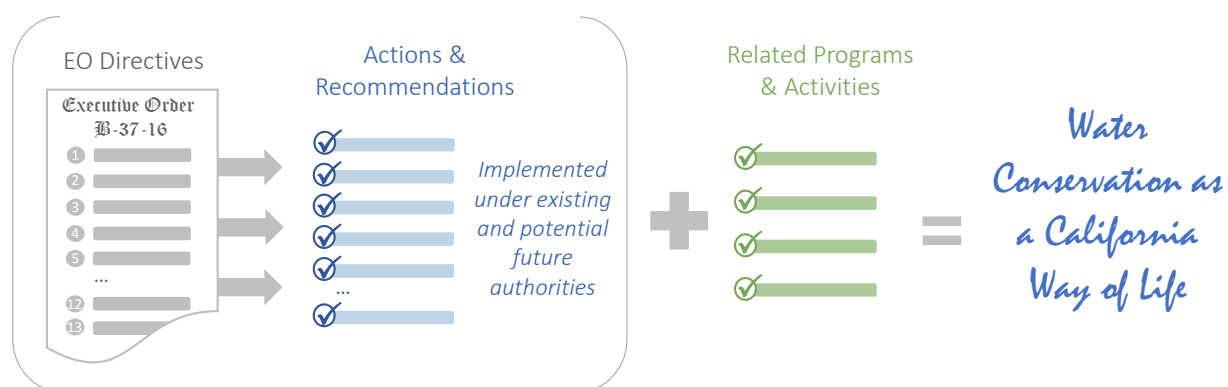
In addition to the actions and recommendations specific to meeting the directives of the EO, the EO Agencies are engaged in various other programs and activities related to water conservation, water use efficiency, and planning for droughts and other water emergencies. These ongoing efforts encompass technical assistance, funding mechanisms, guidance documents, rulemaking, and enforcement. Related programs and activities are critical to achieving the State’s water use efficiency and conservation goals.

The EO actions and recommendations, along with other related State programs and activities, constitute the framework for making conservation a California way of life (Figure 1-1), as described in the EO and in the Water Action Plan.

### 1.3.4 Organization of this Report

This report describes proposed State actions and recommendations associated with the 13 items included in the EO, as summarized in Table 1-1.

Figure 1-2 illustrates the organization of this report. **Chapter 1** provides introductory and background information setting the context for current efforts to improve conservation within the State of California, including a description of the directives in the EO. **Chapters 2 and 3** describe how the directives contained in the EO are being and will be implemented. **Chapter 4** provides a summary and timeline for implementing the identified actions and recommendations as part of the long-term framework for making conservation a California way of life. **Attachment A** includes the full language of the EO, and **Attachment B** summarizes the public outreach and stakeholder engagement conducted to support framework development.



*Many of the needed actions and recommendations in this report cannot be implemented without new or expanded authorities and additional resources. This document describes the additional steps, resources, and legislative authority that will be needed. The actions and recommendations herein, together with existing State programs and activities related to conservation and water use efficiency, represent a statewide framework for making conservation a California way of life.*

**Figure 1-1. Framework for Making Water Conservation a California Way of Life**

Table 1-1. EO Actions and Recommendations Summarized in this Report

Chapter Section and Title where EO Item is Addressed	EO Item													Within Existing Authorities (Chapter 2)	Requires New Authority (Chapter 3)	
	Use Water More Wisely			Eliminate Water Waste				Strengthen Local Drought Resilience			Improve Agricultural Water Use Efficiency & Drought Planning					
	1	2	3	4	5	6	7	8	9	10	11	12	13			
2.1 Emergency Water Conservation Regulations for 2017	●														✓	
2.2 Monthly Reporting and Permanent Prohibition of Wasteful Practices			●	●											✓	
2.3 Reduced Water Supplier Leaks and Water Losses					●	●									✓	
2.4 Certification of Innovative Technologies for Water Conservation and Energy Efficiency							●								✓	
3.1 New Water Use Targets Based on Strengthened Standards		●				●										✓
3.2 Water Shortage Contingency Plans						●		●	●							✓
3.3 Drought Planning for Small Systems & Rural Communities										●						✓
3.4 Agricultural Water Management Plans						●					●	●	●			✓

Note: The EO directs the DWR, the Water Board, and CPUC to develop methods to ensure compliance with the provisions of the EO, including technical and financial assistance, agency oversight, and, if necessary, enforcement action by the Water Board to address non-compliant water suppliers.

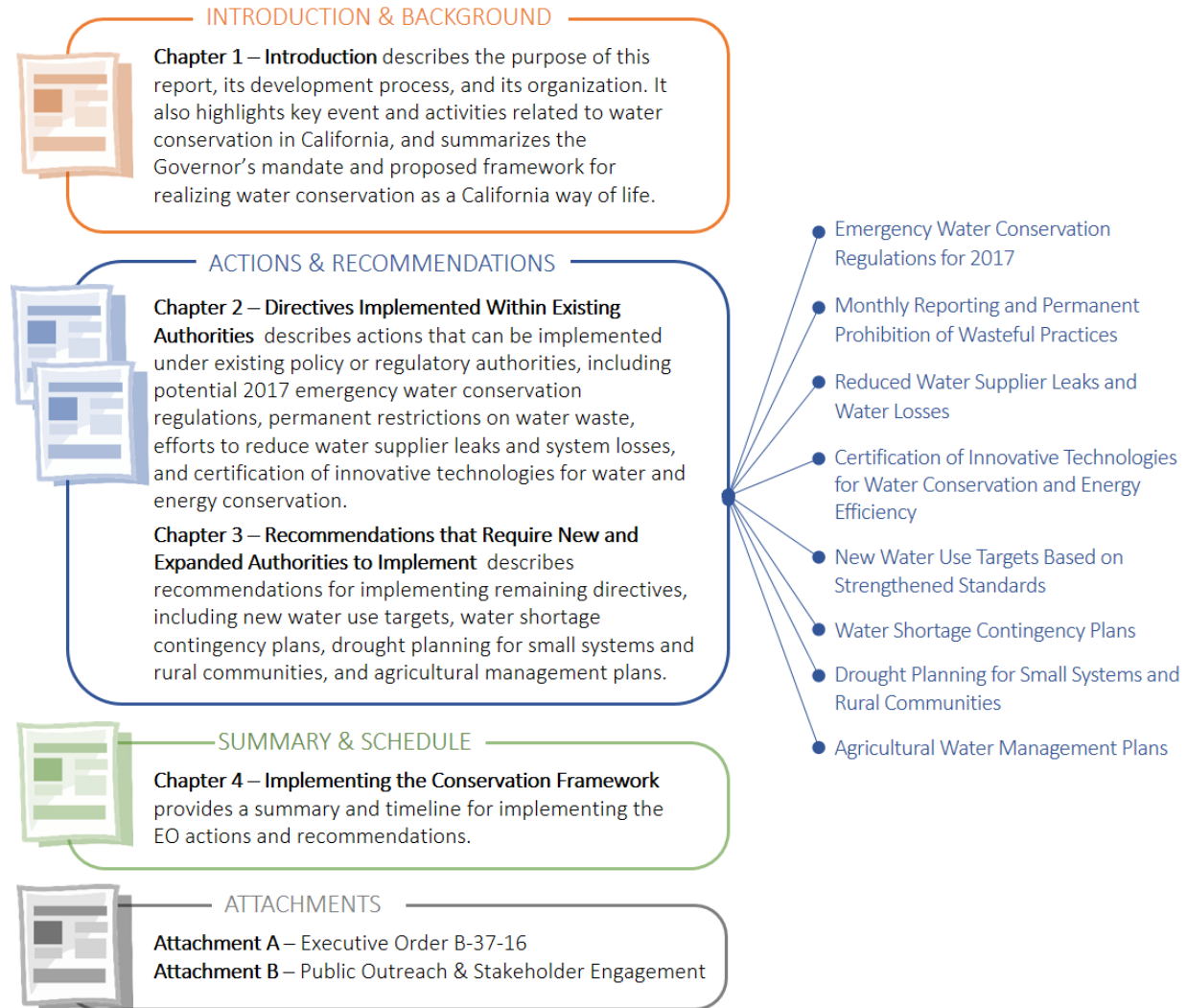
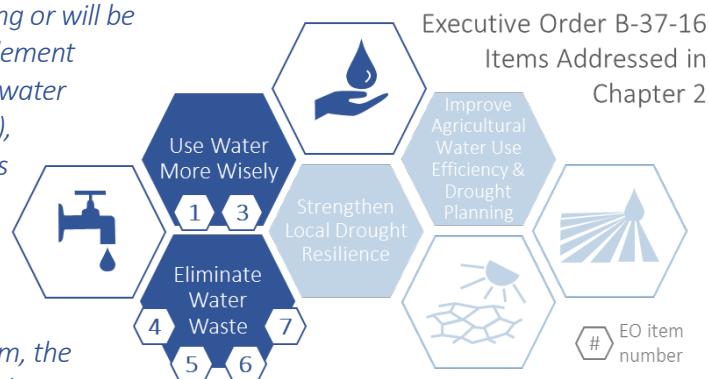


Figure 1-2. Report Organization

# Chapter 2 – Directives Implemented Within Existing Authorities

*This chapter describes actions that are ongoing or will be undertaken within existing authorities to implement portions of the EO. These include emergency water conservation regulations for 2017 (EO Item 1), monthly reporting and permanent restrictions on water waste (EO Items 3 and 4), efforts to reduce water supplier leaks and system losses (EO Items 5 and 6), and certification of innovative technologies for water and energy conservation (EO Item 7). For each item, the chapter includes descriptions of the need for change, the directive as stated in the EO, and implementation considerations. A summary of implementation activities and schedule are included in Chapter 4.*



## 2.1 Emergency Water Conservation Regulations for 2017

### 2.1.1 Need for Change

The current emergency regulation for statewide urban water conservation is set to expire on February 28, 2017. However, drought conditions may persist through 2016 and beyond.

### 2.1.2 EO Directive

Water conservation regulations for 2017 address **EO Item 1** that states:

*The State Water Resources Control Board (Water Board) shall, as soon as practicable, adjust emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions across the state. To prepare for the possibility of another dry winter, the Water Board shall also develop, by January 2017, a proposal to achieve a mandatory reduction in potable urban water usage that builds off the mandatory 25% reduction called for in Executive Order B-29-15 and lessons learned through 2016.*

### 2.1.3 Implementation

Recognizing persistent yet less severe drought conditions due to precipitation near historical averages, the Water Board extended the emergency water conservation regulation on May 18, 2016. The current regulation requires locally developed conservation standards based upon each local water agency's specific circumstances. It replaces the prior percentage reduction-based water conservation standard with a localized "stress test" approach. These standards require local water agencies to ensure a three-year supply assuming three more dry years like the ones the State experienced from 2012 to 2015. Water agencies that would face shortages under three additional dry years are required to meet a state-mandated conservation standard equal to the amount of shortage. The May 2016 regulation is in effect from June 2016 through February 2017.

A majority of urban water suppliers determined that they have sufficient potable water supplies using the supply reliability test from the May 2016 regulation. The Water Board is monitoring drought conditions and urban potable water production and anticipates holding public workshops in winter of 2016/2017 to solicit public feedback on

changing and extending the emergency regulation in January 2017.

### 2.1.4 Reporting, Compliance Assistance, and Enforcement

Under the existing emergency regulations, urban water suppliers submit monthly reports to the Water Board on water production, program implementation, and local enforcement activities. The Water Board tracks progress and works with water suppliers to achieve compliance and enforce as needed. The Water Board shares supplier reports and water savings information on its website. These same reporting requirements and enforcement activities will continue under extended emergency regulations.

## 2.2 Monthly Reporting and Permanent Prohibition of Wasteful Practices

### 2.2.1 Need for Change

California faces decreasing water supplies through a combination of climate change, increasing population, and economic growth. To thrive as a state and make conservation a way of life in California, we must use our water resources effectively and stop wasteful practices. Regular and consistent supplier reports have been in place for several years and are an invaluable tool for understanding urban water supplier responses to policy changes and for statewide water management. EO items 3 and 4 direct DWR and the Water Board to extend some provisions in the emergency regulations to become permanent practices.

### 2.2.2 EO Directive

**EO Item 3** establishes continued reporting and data collection requirements by urban water suppliers, and it states:

*The Department and the Water Board shall permanently require urban water suppliers to issue a monthly report on their water usage,*

*amount of conservation achieved, and any enforcement efforts.*

**EO Item 4** focuses on prohibiting waste of potable water:

*The Water Board shall permanently prohibit practices that waste potable water, such as:*

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

### 2.2.3 Implementation

The Water Board will be conducting a rulemaking process to establish permanent monthly reporting requirements and prohibitions on wasteful water practices, building on what currently exists in the emergency regulation. This process will start at the end of 2016 and run through 2017. The Water Board plans to hold public workshops to solicit public comments during the rulemaking process.

The Water Board will implement these EO items using its rulemaking process with the following basic steps:

- Water Board staff gather data on potential impacts of proposed prohibitions and prepare draft regulatory documents.
- The Water Board solicits stakeholder input through workshops and comment periods, responds to stakeholder input, and revises



draft regulations as needed. There may be multiple iterations of this step.

- The Water Board adopts the final regulatory package of documents, including final regulations and conformance to California Environmental Quality Act requirements and submits to the Office of Administrative Law for approval.

### 2.2.4 Reporting, Compliance Assistance, and Enforcement

With permanent monthly reporting requirements in place, urban water suppliers will continue to submit monthly reports to the Water Board on water production, program implementation, and local enforcement activities. The Water Board will continue to track progress and work with water suppliers to achieve compliance, and enforce as needed. The Water Board will continue to post this information publicly on its website.

## 2.3 Reduce Water Supplier Leaks and Water Losses

### 2.3.1 Need for Change

Existing studies suggest that leaks and breaks in water systems (water losses) account for about 10 percent of total urban water production. DWR estimated almost 700,000 acre-feet per year of water lost at the utility level. Cost-effective water loss reduction represents a potentially significant source of conservation savings.

#### Water Loss

*There are two types of water loss – real (e.g., leaks or breaks) and apparent (e.g., meter errors). Although the amount of water lost by water suppliers throughout the State due to distribution system leaks is not well-documented, a commonly used estimate is 10 percent of volume supplied.*

### 2.3.2 EO Directive

EO Items 5 and 6 address minimizing system leaks and losses as well as accelerating data collection:

5. *The Water Board and the Department shall direct actions to minimize system leaks that waste large amounts of water. The Water Board, after funding projects to address health and safety, shall use loans from the Drinking Water State Revolving Fund to prioritize local projects that reduce leaks and other water system losses.*
6. *The Water Board and the Department shall direct urban and agricultural water suppliers to accelerate their data collection, improve water system management, and prioritize capital project to reduce water waste. The California Public Utilities Commission shall order investor-owned water utilities to accelerate work to minimize leaks.*

### 2.3.3 Implementation

The EO Agencies will meet the requirements of EO Items 5 and 6 through implementation of SB 555, and additional actions to satisfy the EOs directives related to reducing water supplier leaks. Signed in October 2015, SB 555 focuses on identifying real and apparent losses in urban retail water suppliers' distribution systems. It requires the following:

- Annual reporting by urban retail water suppliers
- DWR to perform rulemaking for water loss audit verification
- DWR and the Water Board to provide assistance to retail water suppliers
- The Water Board to set water loss standards between 2019 and 2020

Implementing the water loss audit program as required by SB 555 is a first step towards minimizing system leaks that waste water. As urban

retail water suppliers evaluate and identify distribution system water losses, steps can be taken to address those losses.

The SB 555 regulations for water loss audit validation are scheduled to be adopted by the California Water Commission in January 2017.

#### *Requirements Related to Urban Water Suppliers*

**DWR.** DWR is preparing rules for water suppliers to follow in preparation of their validated water loss audits. Setting audit standards will improve the reliability of water loss audit data.

By January 1, 2017, DWR must adopt rules for:

- Conduct of standardized water loss audits
- Process for validating a water loss audit prior to submission to DWR
- Technical qualifications and certification requirements for validators
- Method of submitting a validated audit report
- Audit review

DWR must also provide technical assistance to guide water loss detection programs, and update adopted rules within 6 months of the release of subsequent editions of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36.

In late 2016, DWR will identify urban retail water suppliers with high water losses, based on evaluation of the water loss audits submitted with the 2015 UWMPs. Suppliers ranked with high losses will be prioritized for technical assistance. Beginning in 2017, DWR will offer either workshops or one-on-one meetings to these suppliers. The aim of these interactions will be to assist the suppliers in preparing and implementing water loss reduction plans. DWR will provide guidance to

suppliers on prioritizing their investments in water loss repair.

DWR will serve as a public information source for water loss data received with UWMPs and the annual water loss audit reporting. A public portal has been established,<sup>1</sup> and in 2017 this website will be enhanced to make the water loss audit reporting data accessible.

**Water Board.** No earlier than January 1, 2019, and no later than July 1, 2020, the Water Board must adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. In adopting these rules, the Water Board will employ life-cycle cost accounting to evaluate the costs of meeting the performance standards. The Water Board will identify compliance and enforcement mechanisms for water loss standards when the standards are adopted. These standards will be utilized for calculating the water targets discussed in Section 3.1 of this report.

As part of implementing SB 555, the Water Board is funding the California Water Loss Control Collaborative's Technical Assistance Program through the California-Nevada Section of the American Water Works Association to further the preparation of consistent and high quality water loss audits. The program has held several technical assistance workshops in 2016 and will continue to offer technical assistance on water loss audits in 2017.

The Water Board will also evaluate whether to require urban water suppliers to conduct component analysis to identify cost-effective investments in water loss control ahead of the standards' rulemaking in 2019.

The Water Board will make water loss data available publicly.

**CPUC.** The CPUC requires reporting of water loss by investor-owned utilities. The CPUC will comply

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<sup>1</sup> <https://wuedata.water.ca.gov/>

with EO Item 6 by ordering its investor-owned water utilities to accelerate work to minimize leaks to further the EO goal of eliminating water waste.

CPUC will use data received from its investor-owned utilities to identify how reductions in non-revenue water can be made. Resolution W-5119 will then be submitted for adoption by the CPUC before the end of 2016 acknowledging the progress Class A<sup>2</sup> investor-owned water utilities have made in keeping non-revenue water percentages stable since the Rate Case Plan Decision<sup>3</sup> was adopted. CPUC will encourage further work to accelerate efforts to minimize leaks, recognizing that system leaks are one component of non-revenue water.

Class A Water Utilities have been reporting non-revenue water metrics through each of their General Rate Case (GRC) Applications in accordance with the prescribed American Water Works Association (AWWA) methodology. This non-revenue water metric can be broken down further, as defined by AWWA in Table 2-1.

As evidenced in Table 2-1, non-revenue water is made up of multiple components, with system leaks being one component. Class A Water Utilities do not currently have the capability to break down their non-revenue water number into the components as defined by AWWA<sup>4</sup>, instead reporting this number as a total percentage using AWWA's water loss audit software. However, Class A Water Utilities provide several additional metrics related to system leaks in their GRC applications, including the following:

- Identifying non-revenue water in centum cubic feet (CCF) and percentage of total

water production for the last authorized test year, last five years recorded data, and proposed test year amounts.

- Submitting the results of a water loss audit performed no more than 60 days in advance of the submission of the proposed application. The audit report will be prepared using the free Audit Software developed by the AWWA and available on the AWWA website.
- In connection with the water loss audit described above, the utility shall conduct and submit the results of a cost/benefit analysis for reducing the level of non-revenue water reported in the water loss audit. If non-revenue water is more than approximately seven percent for each district or service area, submit a plan to reduce non-revenue water to a specific amount.
- Identifying specific measures taken to reduce non-revenue water in the last five years and proposed test year of the GRC application.
- Identifying the number of leaks in the last five years.
- Describing its leak detection program.
- Providing leak repair time and cost statistics for the last five years.
- Identifying specific measures taken to reduce number of leaks in the last five years and proposed test year.

<sup>2</sup> Class A Water Utilities are defined as utilities having greater than 10,000 service connections.

<sup>3</sup> The Rate Case Plan Decision adopted a schedule for the investor-owned utilities to file General Rate Case applications with the CPUC. The Decision also ordered the utilities to submit Minimum Data Requirements as part of their applications including information on efforts to reduce non-revenue water for the previous five years; a water loss

audit in accordance with American Water Works Association; information on number of leaks in the last five years; a description of a utility's leak detection program; and various other metrics for supply and distribution infrastructure status and planning.

<sup>4</sup> Based on the Governor's Executive Order B-37-16 Information Request Response from the Class A Water Utilities to Terence Shia, CPUC, dated September 15, 2016.

**Table 2-1. AWWA Water Balance**

<b>System Input Volume</b> (corrected for known errors)	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption (including exports)	Revenue Water	
			Billed Unmetered consumption		
	Water Losses	Unbilled Authorized Consumption		Unbilled Metered Consumption	Non-Revenue Water
				Unbilled Unmetered Consumption	
		Apparent Losses		Unauthorized Consumption	
				Customer Metering Inaccuracies	
				Systematic Data Handling Errors	
		Real Losses		Leakage on Transmission and Distribution Mains	
				Leakage and Overflows at Utility's Storage Tanks	
				Leakage on Service Connections up tot point of metering	

This information expands on the efforts the CPUC’s Class A Water Utilities have spent on minimizing leaks and keeping non-revenue water percentages stable.

The CPUC’s Water Division has compiled<sup>5</sup> statistics on non-revenue water percentages from each Class A Water Utility since the Rate Case Plan Decision was adopted in 2008. This data indicates that Class A Water Utilities generally maintain non-revenue water percentages below 10% with some averaging around 4-7 percent. Given these numbers, the CPUC acknowledges the work the Class A Water Utilities have done in keeping non-revenue water percentages stable and encourages further work to accelerate efforts to minimize leaks. Efforts that may be undertaken to reduce non-revenue water and minimize leaks include: water loss audits; advanced meter and main replacement programs; increased inspections of service connection meters and mains; installation of leak-detection sensors in the distribution system; and deployment of advanced meter infrastructure.

Although the CPUC’s Class B Water Utilities<sup>6</sup> do not have a defined Rate Case Plan and are not under the same reporting requirements as Class A utilities, these utilities should still propose methods to accelerate efforts to minimize leaks in their next General Rate Case filings in order to comply with the EO. Class B Water Utilities provide metrics on water loss in Schedule D of their annual reports. Testing data and the number of meters tested is provided in Schedule D-6 of the annual report, and total water delivered to metered customers is provided in Schedule D-7 of the annual report. With the focus on minimizing leaks and reducing water loss, Class B Water Utilities should continue to track this valuable information and provide the CPUC with this data in annual reports. In addition, the CPUC recommends that these utilities propose methods to accelerate efforts to minimize leaks in each of their next General Rate Case filings, where a cost/benefit analysis for reducing water loss can be conducted.

<sup>5</sup> Ibid.

<sup>6</sup> Class B Water Utilities are defined as utilities having greater than 2,000 but less than 10,000 service connections.

The CPUC will make available publicly the water loss data provided by investor-owned utilities.

**Urban Retail Water Suppliers.** By October 1, 2017, and annually thereafter, urban retail water suppliers must submit validated water loss audit reports to DWR. These reports will be made available for public viewing. Performing regular audits will help inform water suppliers about the extent of water losses in their service areas.

**Financial Assistance.** To incentivize urban retail water suppliers to comply with the requirement to submit validated water loss audit reports, DWR will revise its funding guidelines to state that water suppliers that do not submit reports are ineligible for DWR grants and loans.

The Water Board will offer financial assistance in 2017 to small water systems that have faced water shortages and required emergency assistance during the drought through the Drinking Water State Revolving Fund.

Other financial assistance programs that can be utilized for water loss reduction include the California Infrastructure and Economic Development Bank's revolving loan fund programs and the California Lending for Energy and Environmental Need Center's Program that offers low interest loans of \$500,000 to \$30 million for water conservation projects. The program is available to non-profit water agencies such as municipalities.

In addition, the CPUC may grant financial incentives for minimizing leaks during the review of each investor-owned utility's upcoming general rate case applications where further scrutiny can be conducted by interested parties considering the cost/benefit analysis of reducing the levels of non-revenue water.

#### *Requirements Related to Agricultural Water Suppliers*

Reducing water waste for agricultural water suppliers will be addressed through new AWMP requirements that include quantifying measures to

increase efficiency, developing a water balance that can identify and prioritize water loss, identifying ways to improve water system management, and drought planning (see Section 3.4).

#### 2.3.4 Reporting, Compliance Assistance, and Enforcement

Beginning in 2017, urban retail water suppliers must submit validated water loss audit reports to DWR. Those not in compliance will not be eligible for State grant and loan funding.

Upon completion of the Water Board's rulemaking related to SB 555 water loss standards in 2020, reporting, compliance assistance, and enforcement information will be available (see Section 3.1 for further detail).

## 2.4 Certification of Innovative Technologies for Water Conservation and Energy Efficiency

### 2.4.1 Need for Change

Reducing the amount of water used by appliances can result in water savings. Setting water efficiency standards can help reduce the level of water use across the State. In addition, technologies are in various states of development and deployment that aim to find underground leaks and leaks past the utility meter. As leak detection and reduction technologies advance, water loss control measures may become more cost-effective.

### 2.4.2 EO Directive

**EO Item 7** focuses on water conservation and energy efficiency technologies, and states:

*The California Energy Commission shall certify innovative water conservation and water loss detection and control technologies that also increase energy efficiency.*

### 2.4.3 Implementation

EO Item 7 builds on Executive Order B-29-15 that incentivizes promising new technology to make

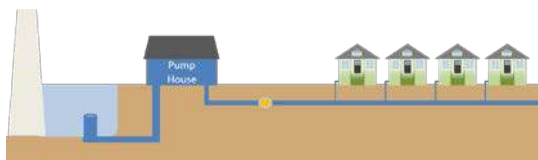
California more water efficient. This item directed the CEC to:

- Implement an appliance rebate program to replace inefficient household devices jointly with DWR and the Water Board.
- Adopt emergency regulations establishing standards to improve the efficiency of water appliances.
- Implement a Water Energy Technology (WET) Program to deploy innovative water management technologies.
- Expedite applications or petitions for power plant certifications to secure alternate water supply necessary for continued power plant operation by delegating, as appropriate, approval to the Executive Director.

#### *Approaches to Water Conservation and Water Loss Detection and Control Technologies*

Various options for water loss detection and control are described briefly below.

**Utility Level.** Utility level technologies discover leaks in water distribution infrastructure prior to delivery to the customer. Some utilities have devised approaches varying from listening for the sounds from leaks to surveys from aircraft or satellites. Some utilities have begun monitoring and controlling a system's water pressure in an effort to prevent the formation of leaks and minimize water loss.



Distribution level loss detection.

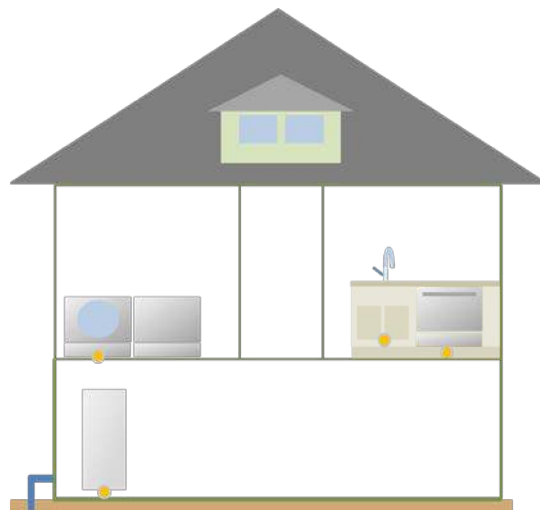
**House Level.** Several companies are developing devices intended to monitor whole house water usage and report leaks. A typical device clamps to a house's main water supply and identifies the type

of water usage by the signature of the water flow. These devices provide information to occupants via the internet.



Household level loss detection.

**Appliance Level.** Consumers may place a device near an appliance such as a faucet, clothes washer, water heater or dishwasher to detect leaking water. The device may alert the user through an audible alert or through a message sent to their internet connected device.



Appliance level loss detection.

#### *CEC Research and Development Division Activities*

The CEC's Electric Program Investment Charge (EPIC) Program follows an energy innovation pipeline program design, funding applied research and development, technology demonstration and deployment, and market facilitation to create new energy solutions, foster regional innovation, and bring clean energy ideas to the marketplace.

***EPIC-Funded Utility Level Leak Prevention and Water Loss Detection Study.*** The EPIC Program is currently funding studies that will demonstrate correlating continuous acoustic monitoring, satellite imagery leak detection, district metered areas, and flow-sensitive pressure reducing valve technologies to reduce the formation of leaks and aid in the detection of leaks at four California municipal utilities. The goal is to demonstrate and improve the technologies to move them closer to commercial adoption.

### ***CEC Efficiency Standards***

Section 25402(c)(1) of the California Public Resources Code mandates that the CEC reduce the inefficient consumption of energy and water on a statewide basis by prescribing efficiency standards and other cost-effective measures for appliances that require a significant amount of energy and water to operate. Such standards must be technologically feasible and attainable and must not result in any added total cost to the consumer over the designed life of the appliance. Manufacturers must certify to the CEC that their appliances meet or exceed the applicable minimum efficiency standards.

The CEC assesses the technical feasibility of proposed standards as part of the appliance rulemaking process. Technical feasibility means determining whether technologies currently exist or will exist that can achieve the efficiency goals of the proposed standard.

In determining cost-effectiveness, the CEC considers the value of the water or energy saved, the effect on product efficacy for the consumer, and the life-cycle cost of complying with the standard to the consumer. The CEC assesses the cost effectiveness of a proposed appliance standard by surveying and comparing the cost and operation of compliant and non-compliant appliances. Any increased costs must be offset by water and energy savings due to the increase in appliance efficiency.

The CEC recently concluded a rulemaking to increase the efficiency of toilets, urinals, faucets, and showerheads that will result in saving over 150 billion gallons of water per year after full replacement. The CEC looks to further water savings by exploring appliance standards for landscape emitters and landscape irrigation controllers.

The CEC maintains a database of appliances certified by manufacturers as meeting the Appliance Efficiency Standards. The public may search the database for compliant products and use the performance data to identify appliances that use water and energy most efficiently.

***Informational Proceeding Workshop.*** In early October 2016, the CEC conducted a public workshop to gather information on innovative water conservation and water loss detection and control technologies from industry, stakeholders, and the public. The comment period closed in late October 2016.

CEC staff will prepare and include a summary of stakeholder comments for inclusion in the final draft of this report. CEC staff will consider comments as part of the workshop process and may make recommendations for the CEC to consider in a future rulemaking.

***WET Program.*** The CEC, jointly with DWR and the Water Board, plans to implement the WET Program to provide funding to accelerate the deployment of innovative water and energy saving technologies and reduce greenhouse gas emissions. However, launch of the program is suspended until funds are made available by the State Legislature.

### **2.4.4 Reporting, Compliance Assistance, and Enforcement**

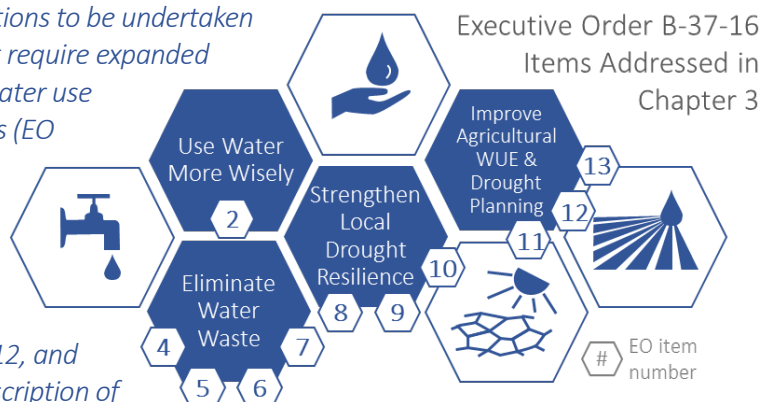
Reporting, compliance assistance, and enforcement do not apply to the actions associated with certification of innovative technologies for water conservation and energy efficiency.

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# Chapter 3 – Recommendations that Require New and Expanded Authorities to Implement

*This chapter describes recommended actions to be undertaken to implement portions of the EO but that require expanded statutory authority. These include new water use targets based on strengthened standards (EO Items 2 and 6), water shortage contingency planning (EO Items 6, 8, and 9), drought planning for small water suppliers and rural communities (EO Item 10), and agricultural water management planning (EO Items 6, 11, 12, and 13). For each, the chapter includes: a description of the current status and need for change; the directive as stated in the EO; and a description of reporting, compliance assistance, and enforcement. A summary of implementation activities and their schedules are included in Chapter 4.*



## 3.1 New Water Use Targets Based on Strengthened Standards

### 3.1.1 Current Status and Need for Change

Urban water conservation and efficiency has been a key California water management strategy over the past 25 years starting with programs implemented during or shortly after the 1988 to 1992 drought, including MWEL0 and plumbing code and appliance standards. In 1991, 120 urban water suppliers<sup>1</sup>, environmental groups and other interested parties signed a historic Memorandum of Understanding (MOU) agreeing to develop and implement comprehensive water conservation Best Management Practices (BMP). The MOU called for the creation of the California Urban Water Conservation Council (CUWCC) to oversee

<sup>1</sup> Urban water suppliers are defined by CWC Section 10617 as a “supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.”

the implementation of the BMPs. Roughly half of urban water suppliers voluntarily joined the CUWCC in 1993, and more followed since then.

The CUWCC has played a key role in the history of urban water conservation in California, successfully creating a collaborative forum for water suppliers and the environmental community to work together to advance urban water conservation throughout the State. This voluntary documentation of conservation efforts by reporting on BMPs by water suppliers has continued through 2016. In 2009, the State conditioned grant funding eligibility for urban water suppliers on compliance with demand management measures which were defined as the CUWCC’s 14 BMPs. This requirement was in place until July 1, 2016 when retail urban water suppliers’ eligibility for State loan and grant funding changed to compliance with the 20x2020 urban water use targets (California Water Code (CWC) Section 10608.56).

At the end of the 2007 to 2009 drought and as part of a Sacramento/San Joaquin River Delta Legislative Package, the State set a statewide goal of reducing

urban per capita water use by 20 percent by 2020, with a 10 percent interim goal in 2015. Known as the Water Conservation Act of 2009, SB X7-7 required urban water suppliers to calculate baseline water use and set water use targets for 2020, with interim targets by 2015. Suppliers were required to report on target compliance in their UWMPs. Urban water suppliers reported a statewide average baseline water use of 199 gallons per capita per day (GPCD) for the ten-year period from 1996 to 2005, with baseline water use amongst individual suppliers showing significant variation. The statewide interim target was 179 GPCD and the final statewide 2020 target was 159 GPCD.

SB X7-7 provided several options for how suppliers could achieve higher levels of water conservation by allowing each water supplier to choose one of four methods<sup>2</sup> for determining their own water use target for 2020 (and interim targets for 2015). These options were designed to address regional diversity use practices, climate, history of investment in water conservation and reductions in urban water use. SB X7-7 also permitted water suppliers to join with others to meet the targets regionally. Finally, it permitted urban water suppliers to increase the use of recycled water to meet their targets.

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<sup>2</sup> As outlined in DWR's *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (2010, & updated in 2016), the four methods to set 2020 per capita water use targets are as follows:

- *Method 1:* Eighty percent of the water supplier's baseline per capita water use.
- *Method 2:* Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use based on MWEL0; and a 10% reduction in CII water use.
- *Method 3:* Ninety-five percent of the applicable State hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Plan.
- *Method 4:* An approach developed by DWR and reported to the Legislature in February 2011 that identifies per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020.

SB X7-7 directed DWR to develop technical methodologies and criteria to ensure the consistent implementation of the Act and to provide guidance to urban water suppliers in developing baseline and compliance water use.<sup>3</sup>

The current historical drought (2013 – present) has placed an even greater emphasis on urban water conservation and efficiency. In January 2014, Governor Brown issued an emergency drought proclamation, and on April 1, 2015, the Governor issued an Executive Order directing the Water Board, for the first time, to enact statewide mandatory conservation requirements to achieve a 25 percent reduction in statewide urban water use. As a result of these mandatory conservation requirements, urban water suppliers reported an average per capita water use of 133 GPCD in 2015, a 33 percent reduction from the baseline conditions for SB X7-7 implementation of 199 GPCD (see Figure 3-1). In 2013, prior to the imposition of statewide mandatory conservation requirements, DWR estimated that average statewide per capita use had already declined to about 160 GPCD, an 18 percent reduction from the SB X7-7 baseline.

While some of this reduction is a result of short-term drought-related cutbacks that will likely bounce back once the drought is over, the current drought has accelerated urban water conservation, exceeding 20x2020 goals well in advance of 2020.

To build on the conservation and efficiency momentum achieved during the current drought, and to “make water conservation a California way of life” on a permanent basis, the EO directs the EO Agencies to develop new water use targets that go

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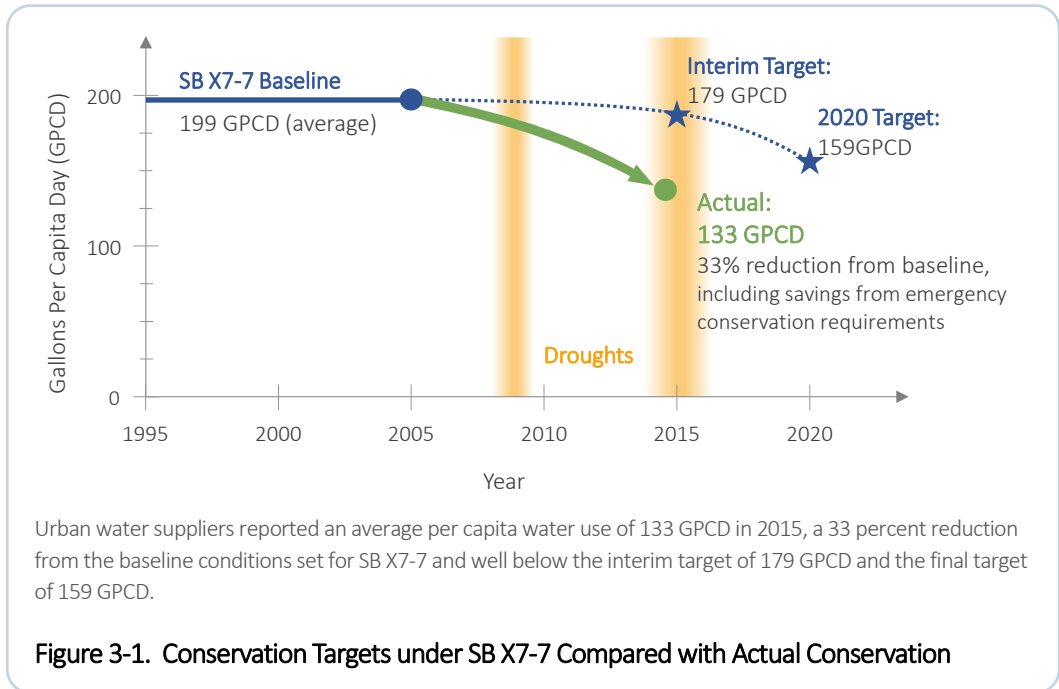
<sup>3</sup> DWR developed methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use. These are published in *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR 2010, updated in 2016).

beyond the “20x2020” targets based on strengthened water use efficiency standards.

The EO calls for new water use targets based on strengthened water use efficiency standards, rather than a percentage reduction in urban water use.

This approach builds off one of the four SB X7-7 methods urban water suppliers could use to achieve their 2020 targets (Method 2). A water use efficiency standards-based approach provides several advantages when compared with other previously used percent reduction approaches in SB X7-7. Mandatory percentage reductions may be more difficult for suppliers that have already achieved a high level of efficiency and conservation, as their overall water use may be low. Further, an efficiency approach removes negative incentives for consumers to use more water than needed during normal (non-drought) conditions such that, if required to conserve due to an emergency, it would be easier to achieve reduction targets. An efficiency-based approach also recognizes supplier efforts to reduce overall water use, including development of recycled water and turf-replacement programs, and eliminates uncertainty associated with percent reduction from a baseline.

While the Water Boards’ mandatory conservation requirements were effective in reducing urban water use, those requirements function best as a short-term, interim solution. A long-term transition to conservation as a way of life must take into account the climatic, landscape, and demographic



conditions unique to each supplier. The approach described in this Framework will recognize the unique geographies of the State by incorporating supplier-specific climate, population, and other settings.

### 3.1.2 EO Directive

New water use targets based on strengthened standards address **EO Item 2**, which states:

*The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010)). These water use targets shall be customized to the unique conditions of each water agency, shall generate more statewide conservation than existing requirements, and shall be based on strengthened standards for:*

- a. Indoor residential per capita water use;

- b. *Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data;*
- c. *Commercial, industrial and institutional water use; and*
- d. *Water lost through leaks.*

EO Item 6, which addresses data collection and improved water system management, also relates to the implementation of new targets and standards directed in EO Item 2. EO Item 6 states:

*The Water Board and the Department shall direct urban and agricultural water suppliers to accelerate their data collection, improve water system management, and prioritize capital projects to reduce water waste.*

See also Table 1-1 in Chapter 1 for a summary of the relationship between the EO items described in this chapter.

### 3.1.3 Recommendations

The EO Agencies recognize that improved water use efficiency on a statewide scale will take time, and recommend setting interim targets until refined standards are adopted no later than 2020, with a path of increasing progress toward achieving final compliance in 2025. This will allow time for the EO Agencies to collect data sufficient for establishing new standards, and allow water suppliers and users to plan for and adjust to the change in approach. The EO Agencies will identify and formally adopt (revised) final standards no later than 2020. Suppliers would then calculate new water use targets based on the final standards starting in 2021, with the goal of achieving full compliance with the final standards by 2025.

The standards recommended by the EO Agencies encompass residential indoor water use, outdoor irrigation water use, water system losses, and commercial, industrial and institutional uses. The EO Agencies anticipate that the greatest water efficiency savings will be achieved through changes in outdoor landscape water use, due to the

relatively high use of water in this sector compared with others.

The following describes the standards framework, and the processes needed to implement the water use target directive. The discussion is divided into three parts: (1) the process for setting a water use target, (2) the process for setting standards (including provisional outdoor and indoor water use, water loss, and commercial and industrial measures), and (3) a summary of the anticipated schedule for water use standards development.

#### *Setting a Water Use Target*

Under the EO Agencies' proposed framework, each water supplier will be required to annually calculate an overall water use target and a commercial, industrial, and institutional (CII) performance-based measures.

The EO Agencies' proposed framework improves on the SB X7-7 Method 2 approach, but differs in several respects. First, under SB X7-7 Method 2, the water use target was the sum of an indoor and outdoor performance based standard and a 10 percent reduction in CII water use, and water loss was not addressed. Under the proposed framework, water loss is now included as part of the supplier's Water Use Target. Given the substantial diversity in businesses and institutions throughout California, a better approach to the CII sector would be to institute performance measures rather than a volumetric standard or budget, at this time. Data collection associated with the CII performance measures may support industry standards and volumetric approaches in the future.

The water use targets will be calculated as the sum of a supplier's residential indoor, outdoor irrigation, and distribution system water loss budgets. Each of these budgets is calculated through the application of a water use efficiency standard, described later in this section.

*Indoor Water Use Budget + Outdoor Water Use Budget + Water Loss Budget = Supplier Water Use Target*

Compliance will be based on the supplier’s total water use target, rather than on the individual budgets. Interim targets based on residential indoor and outdoor standards will be set by water suppliers in 2018, and final targets based on indoor, outdoor and water loss standards will set by water suppliers in 2020. The interim targets will be gradually reduced over time to create a path of increasing progress toward achieving final compliance in 2025. Water suppliers that are not on track to meet interim or final standards-based targets may be provided with additional compliance assistance and/or face enforcement actions from the Water Board.

The following provides an example **water use target** calculation using hypothetical budgets for residential indoor water use, outdoor irrigation water use, and distribution system water loss. For illustrative purposes, the budgets are presented in three units: gallons per capita per day (GPCD), acre-foot, and centum cubic feet (CCF).

**Example Water Use Target Calculation**

Sector	Budget <sup>1</sup> (GPCD)	Budget Volume	
		(acre-feet)	(CCF)
Residential Indoor Water Use	55	10,492	4,570,315
Outdoor Irrigation Water Use	45	8,584	3,739,190
Water Loss	6	1,144	498,326
<b>Target</b>	<b>106</b>	<b>20,220</b>	<b>8,830,380</b>

Notes:  
 1. Budget calculations based on the following:  
 Service area population = 170,319  
 Days per year = 365

Water suppliers will also calculate **compliance volume** by subtracting water delivered to the CII sector from total water production:

$$\text{Compliance Volume} = \text{Total Water Production} - \text{CII Deliveries}$$

To the right is an example compliance volume calculation for a hypothetical water supplier. To be in full compliance, (1) the water supplier’s compliance volume must be less than or equal to the water use target, and (2) the supplier must document full implementation of the CII performance measures (as described more fully below).

**Example Compliance Volume Calculation**

**Supplier’s Water Use:**

Total water production: 26,136 acre-feet  
 CII deliveries: 7,240 acre-feet  
 Target (see prior example): 20,272 acre-feet

*Compliance volume = total production – CII deliveries*  
 = 26,136 – 7,240  
 = 18,896 acre-feet

The supplier is in compliance because the compliance volume of 18,896 acre-feet is less than the water use target of 20,272 acre-feet.

A supplier’s water use target will change each year because, although the standards are set, the targets are based on variable metrics (population, landscape area, evapotranspiration) that change from year to year. Consequently, post-submittal changes or adjustments will not be needed to account for weather or other factors. The process and methodology for setting the standards is described in the following section.

**Setting Water Use Efficiency Standards**

The following describes the recommended provisional standards for residential indoor water use, outdoor irrigation, and distribution system water loss, and the performance measures standard for CII water use.

**Residential Indoor Water Use Standard**

This standard is defined as the volume of residential indoor water used by each person per day, expressed in GPCD. The indoor residential standard will be used to calculate the residential

indoor budget of a supplier's water use target, which is a function of the total service area population.

For example:

$$\text{Residential Indoor Water Use Budget} = (\text{Service area population}) \times (\text{residential indoor standard}) \times (\text{number of days in a year})$$

Until the 2025 standard for residential indoor water use is established, the existing 55 GPCD standard based on SB X7-7<sup>4</sup> will apply.

A recent national study<sup>5</sup> conducted by the Water Research Foundation suggests that the national residential indoor water use average is about 59 GPCD. Many experts believe California's average residential indoor use to be lower. DWR is currently conducting a study to estimate average statewide residential indoor GPCD. A DWR-commissioned study<sup>6</sup> to support the standard development suggests that compliance with the provisional residential indoor water use standards could likely be facilitated through plumbing code changes and continued appliance replacements with higher efficiency units. This study suggests that the effects of toilet replacement through SB 407<sup>7</sup> and continued enforcement of federal clothes washing machine water use efficiency standards would lower residential indoor water use by roughly 6 GPCD by 2030 and by 9 GPCD by 2040. This estimated level of reduction is generally consistent across all counties in California.

DWR and the Water Board will continue gathering additional data on current indoor water use to support future revisions of the existing standard

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<sup>4</sup> SB X7-7 defined 55 GPCD as a provisional standard for residential indoor water use. See CWC Section 19608.20(b)(2)(A).

<sup>5</sup> Water Research Foundation (2016). Residential End Uses of Water Study, Version 2: Executive Report.

<sup>6</sup> Mitchell, D., 2016. Projected Statewide and County-Level Effects of Plumbing Codes and Appliance Standards on Indoor GPCD, for Department of Water Resources, August.

<sup>7</sup> California Civil Code Section 1101 et seq.

downward to reflect the increased use of efficient fixtures and appliances. The updated standards will be available in 2018, with a timeline for interim and final compliance by 2025. Afterward, the EO Agencies will reevaluate the standard for potential revision every five years, beginning in 2025.

### **Outdoor Irrigation Standard**

The proposed outdoor irrigation water use standard will be defined as percentage of reference evapotranspiration (ET<sub>o</sub>). ET<sub>o</sub> is an estimate of the evapotranspiration<sup>8</sup> of well-watered cool season grass and is expressed in inches of water per day, month, or year. ET<sub>o</sub> will vary across the State based on climatic factors such as solar radiation, temperature, humidity and wind. Landscape water requirements are expressed as a percentage of ET<sub>o</sub> and encompass the plant water requirements and the irrigation system efficiency. Lawns and recreational fields can require 100% of ET<sub>o</sub> or greater while low water use landscapes can require 20 to 30% of ET<sub>o</sub>. The outdoor irrigation standard will be a fraction of ET<sub>o</sub>.

Table 3-1 shows the existing SB X7-7 standards (Method 2<sup>9</sup>) for outdoor water use. These existing,

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<sup>8</sup> Evapotranspiration is the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants.

<sup>9</sup> In describing Method 2, CWC Section 10608.2 (b)(2) specifies that the 2020 per capita water use target is, "The per capita daily water use that is estimated using the sum of the following performance standards:

- (A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.
- (B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficiency Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of, the year of the landscape's installation or 1992. An urban retail water supplier

provisional standards will guide and assist water suppliers in their outdoor water use planning efforts until such time as the EO Agencies identify and adopt final standards (as described later in this section).

**Table 3-1 Existing SB X7-7 Standards for Outdoor Water Use**

Category		% of ETo
Residential Landscape by Parcel Development Date	Before 2010	0.8
	Between 2010 and 2015	0.7
	After 2015	0.55
Commercial Landscape		0.45
Landscapes Irrigated by Recycled Water		1.0
Special Landscape Areas (e.g., Parks and Fields)		1.0

Note that irrigation use for commercial properties without a dedicated account or meter will be subject to the CII performance measures, as described later. For the purpose of the provisional standards displayed in Table 3-1, areas irrigated with recycled water are considered special landscape areas and assigned an Evapotranspiration Adjustment Factor (ETAF) of 1.0, recognizing the higher salinity levels of recycled water.

The total outdoor water use budget for a water supplier is calculated as the sum of the individual budgets for all categories of outdoor water use within its service area. Because ETo and landscape area can change from year to year, the resulting outdoor water use budget also changes.

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using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

- (C) For CII uses, a 10-percent reduction in water use from the baseline CII water use by 2020.”

As described previously, the outdoor irrigation budget is calculated based on the landscape area within a water supplier’s service area. Currently, few water suppliers have measured or collected data on the landscape area within their service area. To facilitate the transition to the new standards-based approach, the EO Agencies will develop landscape area estimates for each urban retail water supplier in the State.

The EO Agencies will develop landscape area data in several steps. First, the EO Agencies will form an urban landscape area workgroup to provide technical guidance and input on this project. This work will include developing definitions for irrigated and irrigable landscape area. Next, pilot projects will be conducted to ensure that the process used for measuring landscape area is accurate. The landscape area workgroup will also provide input and guidance in reviewing the pilot projects’ results. Accuracy assessments will be conducted for each of the pilot projects.

Based on lessons learned from the pilot projects, the EO Agencies will measure the landscape area for the remaining urban retail water suppliers. It is anticipated that this statewide landscape area measurement project will be completed in 2018. At the end of the project, in 2018, the service area landscape area data will be made available to water suppliers.

Using both the supplier service area landscape area data measured in the pilot and statewide projects and water suppliers’ aggregate water delivery data, the EO Agencies will estimate service area, regional, and State average applied irrigation water levels.

In 2018, using the statewide estimates of applied irrigation water use, DWR and/or the Water Board will evaluate the existing SB X7-7 outdoor water use standards (Table 3-1) and develop final recommended standards that would begin to be phased in starting 2018 and need to be fully applied by 2025. At this time, the EO Agencies will also reevaluate the treatment of areas irrigated by

recycled water and determine the referenced acreage for residential landscape area (i.e., irrigated area or irrigable area) in budget calculations. The final outdoor standards will be set to increase the efficiency of outdoor water use and achieve water savings beyond SB X7-7 implementation.

By 2020 the EO Agencies will adopt the final outdoor landscape standards. Urban water suppliers must develop a plan for meeting their 2025 water use targets and report on it in their 2020 UWMPs. Starting with 2021 (reported on in 2022), urban water suppliers must start showing sufficient progress towards meeting the water use targets based on the 2025 standards. Water suppliers will be required to meet their water use targets by 2025.

Every five years thereafter, the EO Agencies will review the outdoor water use standard; at these times, they may consider further reducing the ETAFs for some or all categories, or making other adjustments to the standard and budget calculation. Landscape area data will also be updated periodically.

#### ***Distribution System Water Loss Standard.***

The standard for water system loss will be established through the SB 555 process<sup>10</sup> and may be expressed as volume per capita or volume per connection, accounting for relevant factors such as infrastructure age and condition. The water loss standards will include system losses and leaks, as well as other non-revenue water used for system maintenance and public safety purposes.

Per SB 555, the Water Board will establish the water loss standard by 2020 for compliance in 2025. The Water Board will reevaluate the water loss standard for potential update every five years, beginning in 2025.

#### ***Commercial, Industrial, and Institutional Performance Measures.***

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<sup>10</sup> See Section 4.3 of this report for information on SB 555, water loss audits, and water loss standards.

There is substantial diversity in businesses and institutions throughout California, resulting in a wide range of water use within the commercial, industrial, and institutional sector. Consequently, the EO Agencies will not establish a volumetric standard and budget for CII water use at this time. Instead, CII water suppliers will be required to implement the following three performance measures:

1. Convert all landscapes over a specified size threshold that are served by a mixed-meter CII account to dedicated irrigation accounts, either through the installation of a separate landscape meter or the use of equivalent technology.
2. Classify all CII accounts using the North American Industry Classification System (or another similar classification system selected by the EO Agencies). Where feasible, CII subsector benchmarks will be developed to assist water suppliers in identifying CII accounts with the potential for water use efficiency improvements.
3. Conduct water use audits or require water management plans for CII accounts over a specified size, volume, or percentage threshold.

By December of 2018, the EO Agencies will develop regulations and guidelines for the implementation of the CII performance measures. This guidance will include methods for classifying CII accounts, landscape size thresholds for dedicated metering, direction on implementing CII water audits, and guidance for preparing water management plans. The regulation and guidelines will be established through a public process, with the advice and input of a new CII workgroup to be established by the EO Agencies. Every five years, the EO Agencies will review the outcomes of performance measure implementation and consider updates, if appropriate. In the future, the EO Agencies may consider establishing industry-specific benchmarks



or other means to improve water use efficiency in the CII sector.

*Schedule for Water Use Standards Development, Review and Revision*

The following summarizes anticipated EO Agencies actions and timeline for developing, reviewing, applying, and revising the water use standards. This timeline is subject to resource availability.

*Water Use Standards Development Timeline*

- 2017** DWR completes pilot projects on landscape area measurements
- 2018** DWR completes statewide landscape area measurements to support development of outdoor landscape standard  
 EO Agencies estimates service area, regional, and State average applied irrigation levels  
 EO Agencies recommend final 2025 compliance standards for indoor and outdoor water use  
 EO Agencies set provisional indoor and outdoor residential standards, and water suppliers set interim targets.  
 EO Agencies develop regulations and guidelines for the implementation of CII performance measures  
 DWR provides urban water suppliers with the service area landscape area data
- 2019** EO Agencies provide guidance and methodologies for all standards
- 2020** By 2020, EO Agencies complete rulemaking and adopt final 2025 indoor, outdoor and water loss standards
- 2025** EO Agencies review and consider updates to the standards, starting in 2025 and every five years thereafter; revisions will follow the requirements for rulemaking and provide opportunity for public comment and input

**3.1.4 Reporting, Compliance Assistance, and Enforcement**

Specific reporting and compliance dates are subject to EO Agencies requisite actions as described above. Compliance dates would be extended as necessary to accommodate any serious delays in completion of those actions.

*Reporting*

Beginning in 2019, water suppliers must submit limited annual progress reports showing implementation of the recommended CII performance measures, and to measure progress toward meeting interim and final targets. In their 2020 UWMPs, urban water suppliers must submit a plan for meeting their 2025 water use targets.

Starting in 2022, the annual progress report for the prior year will address all water use standards and will include the following three elements:

1. Calculation of progress towards meeting the water use standards based on prior year target developed using 2025 standards and annual production data.
2. Documentation of CII performance measures implementation.
3. A narrative description of refined actions to be taken by the supplier to ensure compliance by 2025.

Water suppliers will submit annual progress reports every year from 2022 through 2025, documenting annual water production relative to the water use targets and CII performance measure implementation for the previous year. In 2026, water suppliers will submit a concluding annual compliance report documenting accomplishments and outcomes in complying with the 2025 water use targets.

Suppliers will continue to submit annual compliance reports in 2026 and thereafter, repeating the 5-year reporting cycle and using updated standards adopted by the EO Agencies, as

applicable. Additionally, suppliers will continue to submit monthly and annual water use data, per existing requirements.

The 5-year cycle for water suppliers to update their UWMPs is similar to the 5-year cycle for the EO Agencies to update the water use standards; it is expected that updated standards will be available six months to a year prior to the July deadline for submitting UWMPs. Reporting in future UWMP updates will, therefore, incorporate the water use efficiency standards and supplier accomplishments in meeting them.

### *Assistance and Compliance*

The EO Agencies propose that compliance will be assessed on total water use in comparison to a supplier's total water use target, rather than on the individual water budgets by sector (indoor, outdoor, and water loss). Full compliance will be met when the supplier's total water use is less than or equal to the target, and the supplier has implemented the CII performance measures.

The EO Agencies will review the monthly and annual reports and data submitted by water suppliers for completeness and progress in achieving interim targets starting in 2018 and compliance with final targets by 2025. Where necessary, DWR or the Water Board may provide feedback, direction, or suggestions for water suppliers to improve their compliance and progress. The Water Board may also issue formal Enforcement Orders to suppliers not on track to meet interim or final targets.

DWR will provide technical assistance to suppliers in preparing their annual progress reports and will continue to revise UWMP guidance, as needed, to reflect updated standards and water use compliance requirements. The EO Agencies will actively communicate the need for the water use targets and their implementation through public outreach and engagement, sharing the responsibility for public education with water suppliers.

Water suppliers must be in compliance with the new standards-based water use targets by 2025 to be eligible for State grant and loan funding.

### *Enforcement*

Water suppliers that are not in compliance with the new standards-based water use targets by 2025 may be provided with additional compliance assistance and/or face enforcement actions from the Water Board. This could include:

- Information orders
- Conservation orders
- Cease and desist orders
- Administrative civil liability penalties (such as fines)

The EO Agencies will conduct enforcement only at the supplier level, based on compliance with the total water use target for the entire service area and associated performance measures for CII water use. Water suppliers may implement discretionary actions of their choosing on individual water accounts or users to ensure that their overall water use efficiency targets are met.

Water suppliers are required to continue submitting monthly water use reports to the Water Board for their water use, amount of conservation achieved, and any enforcement efforts, as directed in EO Item 3.

Water suppliers failing to submit annual reports for standard compliance, UWMPs, or monthly reports for water use per schedule will be subject to earlier enforcement action.

### *MWELo Updates and Standards*

DWR may consider updating the MWELo to better align the model ordinance language with the water use efficiency standards. Better alignment will provide land use agencies with tools to implement complementary actions that assist water suppliers in complying with the standards.

## 3.2 Water Shortage Contingency Plans

### 3.2.1 Current Status and Need for Change

#### *Current Status*

Current statutes direct urban suppliers<sup>11</sup> to provide a water shortage contingency analysis as a component of their UWMPs, which are updated every five years. Some urban water suppliers have exceeded the existing shortage contingency analysis requirements, documenting them in official WSCPs; these plans are used to satisfy the UWMP requirements submitted to DWR. However, this is not a requirement under current guidance<sup>12</sup>, and suppliers have used varying assumptions in their analyses. Consequently, WSCPs are varied in their form, approach, and functionality, in part due to the lack of statewide standards.

#### *Need for Change*

During the on-going historical drought, some water suppliers that had inadequately assessed the risk of water shortage were unprepared to effectively respond to the realized supply shortages. However, many other suppliers showed high levels of resiliency due to their adequate planning and well-defined contingency actions.

Supplier experiences during the current drought have prompted the need to elevate water shortage contingency planning for urban water suppliers throughout the State. Water shortage contingency planning is important because it can affect the basic health and safety of California residents. It can also be very costly for both the State and local

<sup>11</sup> UWMPs are only prepared by urban water suppliers, defined as a “supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually” (CWC Section 10617). According to DWR, there are approximately 440 urban water suppliers in the State that must prepare UWMPs.

<sup>12</sup> 2015 Urban Water Management Plan: Guidebook for Urban Water Suppliers, DWR, January 2016.

communities to engage in last minute, emergency efforts to alleviate water supply crises when they happen.

Urban water suppliers should evaluate the potential impacts on their water supplies considering the full range of plausible water supply and demand conditions in order to properly assess their potential risk and exposure to shortage in frequency, severity, and potential consequences. Each water supplier establishes its accepted tolerance for risk that varies based on many intertwined technical, legal, economic, and political considerations. It is critical that water suppliers inform their customers of the accepted risk and potential consequences.

As these factors are often changing, a supplier must diligently assess them in a manner that allows confident management in accordance with its risk tolerance.

### 3.2.2 EO Directive

The water shortage contingency planning discussed in this section focuses on the requirements for DWR to develop measures to strengthen local drought resilience. Specifically, **EO Items 8** and **9** state:

8. *The Department shall strengthen requirements for urban Water Shortage Contingency Plans, which urban water agencies are required to maintain. These updated requirements shall include adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. While remaining customized according to local conditions, the updated requirements shall also create common statewide standards so that these plans can be quickly utilized during this and any future droughts.*
9. *The Department shall consult with urban water suppliers, local governments, environmental groups, and other partners*

*to update requirements for Water Shortage Contingency Plans. The updated draft requirements shall be publicly released by January 10, 2017.*

EO Item 6, which relates to accelerated data collection for urban water suppliers, also has ties to EO Items 8 and 9, above. See also Table 1.1 in Chapter 1.

### 3.2.3 Recommendations

DWR recommends strengthening local drought resilience through improved planning and annual assessments. In addition, the proposed planning and assessment methods will allow for local control in defining the risk tolerance, with improvements in information dissemination to both customers and the State during drought conditions. This could lead to reductions in long-term impacts on customers in the wake of more frequent and severe drought conditions under climate change.

The EO Agencies established the following primary objectives in the design of the recommendations:

- Assure that an urban water supplier has adequately planned for, and can quickly respond with adequate, pre-determined actions, to droughts lasting at least five years, as well as during more frequent and severe periods of drought; and
- Provide DWR with information necessary to evaluate specific urban supplier responses throughout the State to drought conditions, to allow focused attention where necessary and forestall overarching mandates that may conflict with existing adequate local plans and responses.

To achieve these objectives, DWR recommends the following requirements for urban water suppliers and EO Agencies:

#### *Urban Water Suppliers*

Each urban water supplier will prepare and adopt an updated WSCP and submit it to DWR for review

as part of the UWMP. A key component of the WSCP will be establishing the methodologies, data requirements, and policy considerations for an annual assessment of shortage risks in the current year plus one or more dry years. Following the procedures detailed in the adopted WSCP, the supplier will annually assess its actual or potential water shortage condition, respond accordingly, and report pertinent information to DWR.

Additionally, the procedures and methods for a Drought Risk Assessment that evaluates plausible worst-case supply conditions for a period of at least five years will be reported in the UWMP.

#### **Updated Contents of the Urban Water Management Plans**

Updated contents for suppliers' UWMPs include the following:

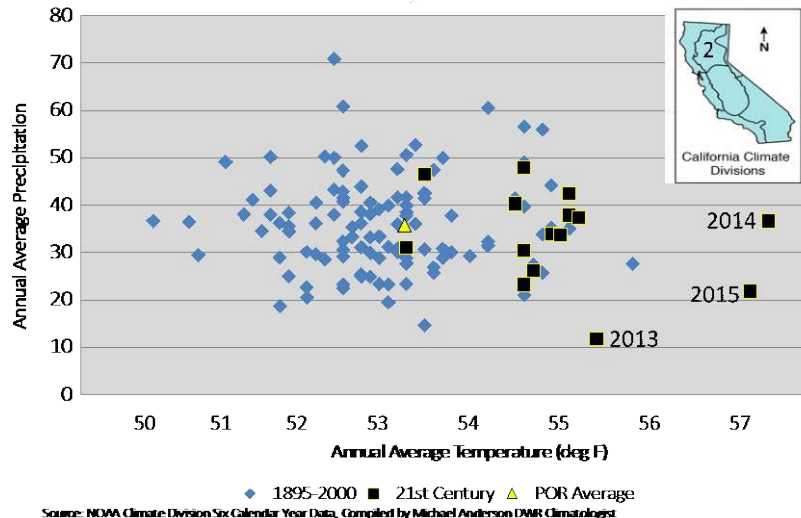
1. 5-Year Drought Risk Assessment – Define the methodology, data requirements, and basis for one or more plausible supply shortage conditions necessary to conduct a drought risk assessment that examines shortage risks for the next five or more consecutive years.
2. Evaluation Criteria – Define a set of evaluation criteria that will be used to conduct the drought risk assessment. The evaluation criteria will be locally applicable and include, but not be limited to, the following factors:
  - a) Historical drought hydrology
  - b) Plausible climate change effects for existing supplies and demands (e.g. precipitation or ETo changes)
  - c) Plausible regulatory changes that can affect existing supplies and demands (e.g., Water Use Efficiency emergency regulations)
  - d) Demand projections
3. Conduct a Drought Risk Assessment – Suppliers will conduct a drought risk assessment at a minimum of every five years, per the procedures set forth in the urban water management plan.

**Contents of the Water Shortage Contingency Plan**

The supplier’s WSCP must provide details for each of the following standard sections:

1. Annual Water Budget Forecast Procedures – Define the process, data inputs, and water year schedule to generate the Water Budget Forecast used in the annual assessment.
2. Annual Assessment Methodology – Define the methodology necessary to conduct an Annual Water Budget Forecast assessing shortage risks for the current year and one or more dry year(s), assuming a dry year triggers Shortage Response Actions.
3. Evaluation Criteria – Define a set of evaluation criteria that will be used to conduct the Water Budget Forecast. The evaluation criteria will be locally applicable and include, but not be limited to these factors:
  - a) Current year unconstrained demand, considering weather, growth or other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.
  - b) Current year available supply, considering hydrologic and regulatory conditions in the current year and an additional dry year, as appropriate for the current supply sources.
  - c) Existing infrastructure and operational capabilities and plausible constraints.
4. Shortage Levels – WSCPs must include six standard shortage levels, representing the actual shortage, or predicted shortage determined by the Water Budget Forecast, defined as:

*When developing a WSCP, water suppliers should consider the potential risks associated with climate conditions that are outside of the historical norm, as evidenced below in the graphic of the ongoing drought.*



- Shortage Level 1: Up to 10 percent shortage
- Shortage Level 2: Up to 20 percent shortage
- Shortage Level 3: Up to 30 percent shortage
- Shortage Level 4: Up to 40 percent shortage
- Shortage Level 5: Up to 50 percent shortage
- Shortage Level 6: Greater than 50 percent shortage

5. Shortage Response Actions (SRA) – For each Shortage Level, define a progressive series of SRAs that include a locally appropriate mix of short-term water efficiency and/or demand reduction actions, supply augmentation, and/or operational changes necessary to respond to actual or predicted shortage conditions. The SRAs must include actions necessary to respond to shortages.
6. Communication Plan – Describe the planned communications approach and anticipated actions intended to quickly inform customers, the public, and regional and State interests, about current shortages or predicted shortages as determined by the Water Budget Forecast, expected implementation of SRAs, and other necessary communications.

7. Customer Compliance, Enforcement, and Appeal/Exemption Procedures – Describe methods and procedures in place to (1) gain customer compliance with triggered SRAs – especially with actions requiring mandatory demand reductions, (2) enable enforcement to assure compliance, and (3) enable a customer appeal/exemption process that allows unique circumstances to be accommodated.
8. Implementation Authorities – Demonstrate that necessary authorities are in place to quickly implement SRAs. Identify specific ordinances, resolutions, or other authorities, and address compliance with CWC Section 350 et seq. Should a water supplier enter into Shortage Level 3 or higher, as described herein, there should be a water shortage emergency declaration and all appropriate actions described in CWC Section 350 et seq., must be implemented.
9. Financial Plan for Drought Conditions – Describe management of revenue and expense variances when SRAs are triggered, including but not limited to, customer rate adjustments, or use of financial reserves. Specifically describe compliance with SB 814 (CWC Section 365 et seq.).
10. Monitoring and Reporting Requirements and Procedures – Outline internal and external monitoring and reporting procedures to assure appropriate data are being collected, tracked, and analyzed for purposes of monitoring customer compliance, and to meet DWR reporting requirements.
11. Re-evaluation and Improvement Process – Identify procedures for monitoring and systematically evaluating the functionality of a WSCP to assure shortage risk tolerance is adequate, and appropriate mitigation strategies are available.

### **Implementing Water Shortage Contingency Plans**

As articulated in the WSCP, the supplier will follow its prescribed procedures to assess current year and one or more dry year water supply reliability conditions. Specifically, the supplier will:

1. Annually conduct a Water Budget Forecast per the procedures set forth in the WSCP.
2. Depending on the results of the Water Budget Forecast, appropriate SRAs will be triggered corresponding to the projected Shortage Level.

### *EO Agencies*

The EO Agencies will set forth planning and reporting criteria, evaluate submitted data, support compliance and enforcement, and provide technical assistance. The EO Agencies anticipate that suppliers that conduct thorough shortage planning will continue to do so under the new requirements, while those that do not will be prompted to improve their planning to levels that limit or eliminate the need for State intervention in drought response.

DWR actions will include the following:

1. Prepare Compliance Criteria – DWR will prepare necessary documents (and regulations, if necessary) detailing the WSCP and annual assessment compliance criteria that must be met by water suppliers. The criteria will include articulating the necessary data and information that must be submitted by suppliers (1) every five years, and (2) annually. Failure to comply will result in to-be-defined enforcement measures.
2. Develop Information Submittal Tools – DWR will prepare new or augment existing reporting procedures and websites to facilitate supplier reporting. Existing requirements for data and information reporting will be utilized where feasible in order to minimize additional reporting burdens on suppliers.

3. Evaluate Statewide Water Supply Conditions – On an as-needed basis, DWR will assess regional and statewide water supply conditions – such as those created by prolonged or severe hydrologic drought – to understand the likelihood and degree that urban suppliers would be implementing SRAs.
4. Review and Assess Supplier-Reported Information – DWR will review supplier-specific data and information submitted for compliance with stated criteria. The review will also allow DWR to evaluate local shortage conditions compared to the statewide water supply conditions, and prepare necessary reports for the Governor’s Office and the Legislature.
5. Compliance and Enforcement – A key factor to strengthen local drought resilience is to hold suppliers accountable for being prepared to quickly respond to long-lasting and potentially more frequent and severe supply shortages. By requiring suppliers to submit adopted WSCPs and perform and submit annual assessments, the EO Agencies will have supplier-specific information that can be used to assess compliance with overall objectives. As part of recommendations, the State will define the compliance assistance and enforcement protocols.
6. Technical and Financial Assistance – To facilitate improved drought planning for all urban water suppliers, the EO Agencies will continue to offer technical and financial assistance through various existing programs and seek additional funding. Additionally, DWR will update its 2008 Drought Guidebook to incorporate the strengthened WSCP recommendations, provide further details for the recommended components and definitions, provide example drought risk assessment methods and supply shortage scenarios, and suggest various SRAs.

### 3.2.4 Reporting, Compliance Assistance, and Enforcement

The reporting and compliance processes described in this section will result in transparent communication of effective planning by local water suppliers and will provide the EO Agencies with an effective monitoring tool. The end result of data reporting and collection should be in a data exchange system with a public-facing GIS application that allows policy makers, water managers, and the public to view actual or predicted shortage conditions and SRAs in any part of the State.

The water supplier will follow the reporting procedures set forth in its WSCP and UWMP. The following reporting cycle is anticipated:

- Every five years
  - Submit the adopted WSCP to DWR, including the associated Drought Risk Assessment in the UWMP and supporting data.
  - Make the WSCP available to customers (website, hardcopy at desk).
- Annually
  - Submit Water Budget Forecast results and selected SRAs to DWR, including an indication of the shortage reduction anticipated to occur with the selected SRAs.
  - Communicate Water Budget Forecast results and selected SRAs to customers (website, hardcopy at desk).

DWR will review submitted data for completeness and adequacy, using criteria to be developed by DWR, in consultation with the Water Board and CPUC, for further assistance and potential enforcement actions, where applicable. DWR will receive the WSCPs and the associated reports and make them available to the public.

## 3.3 Drought Planning for Small Water Suppliers and Rural Communities

### 3.3.1 Current Status and Need for Change

#### *Current Status*

Small water suppliers and rural communities are not covered by established planning requirements, which apply to large urban water suppliers and larger agricultural suppliers (see sections 3.2 and 3.4). Often, small suppliers and rural communities lack resources and mechanisms to compel drought planning efforts. Drought planning helps to identify potential shortage conditions and justify local expenditures and measures to provide sufficient safe water.

While small water suppliers have a fiduciary relationship with their customers, self-supplied domestic water users (rural communities) rely on the county. Counties have legal and fiduciary responsibilities to assist with the general well-being of their citizens and provide for the health and safety of their citizens; they are, however, limited in enforcing any water curtailment or conservation policies.

Many State agencies have regulatory responsibilities and technical and financial assistance programs targeting rural communities and small water suppliers. Examples include the Water Board's Division of Drinking Water and their requirements for safety consideration of public water systems, and CPUC's jurisdiction over small investor-owned utilities on their operation and maintenance.

In addition, SGMA could have significant effects on management and long-term water supply reliability. SGMA applies to 127 high and medium-priority groundwater basins (as defined by DWR's California Statewide Groundwater Elevation Monitoring, or CASGEM, program). Any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability

agency" (GSA) for that basin. However, if a basin (or portion thereof) is not within the management area of a GSA, the county within which the basin is located will be presumed to be the GSA for that basin or portion. When preparing required groundwater sustainability plan(s) (GSPs), the GSA(s) and the county will need to incorporate appropriate drought planning and response measures to adequately protect small water suppliers and rural communities from possible future shortages. If the county declines its SGMA responsibilities, leaving unmanaged areas in a high or medium-priority basins, the State may be required to intervene and directly manage groundwater resources in the basin.

#### *Need for Change*

The ongoing drought has brought attention to the reality that many small water suppliers and rural communities are struggling to meet demands with significantly reduced water supplies – or even running out of water altogether.

The fundamental difference in customer relationships and access to resources between large and small water suppliers, self-supplied systems and counties requires unique approaches to facilitating improved drought planning.

California became the first state to legally recognize the human right to water with the signing of AB 685 in September 2012. This law aims to ensure universal access to safe, clean, affordable, and accessible water. When communities run out of water, State and local emergency measures must be taken and these measures are expensive to implement.

Recent policy and legislative efforts have focused on trying to assure sustainable potable water supplies exists to meet the health and safety needs of the citizens. In conjunction with these efforts, the EO directs DWR to work with counties throughout the State to facilitate improved drought planning for rural communities and small water suppliers.



### 3.3.2 EO Directive

**EO Item 10** focuses on improved drought resiliency to small water suppliers and rural communities. The State’s primary intent of this directive is to assure the availability and reliability of potable water supplies to meet the health and safety needs of citizens not otherwise receiving water from designated urban water suppliers. EO Item 10 states:

*For areas not covered by a Water Shortage Contingency Plan, the Department shall work with counties to facilitate improved drought planning for small water suppliers and rural communities.*

### 3.3.3 Recommendations

Recommendations in this section focus on improved drought planning for small water suppliers and rural communities throughout every county in California.

EO Agencies are considering various actions to satisfy EO Item 10. The recommendations described below are intended to illustrate options currently under consideration and to describe the types of activities underway. This process to develop recommendations will continue into 2017.

The intent of these recommendations is for the EO Agencies and counties to collectively:

- Improve assessment of drought vulnerability to understand relative risks and prioritize actions.
- Take proactive actions to reduce drought vulnerability when and where appropriate.
- Improve availability and readiness of appropriate responses for when drought impacts do occur, including financing when and where appropriate.

The EO Agencies recommend the following efforts continue as a pathway to developing recommendations:

1. Improve engagement with cities and counties, as well as stakeholders such as the League of California Cities, the California State Association of Counties, the Regional Council of Rural Counties, the Community Water Center, and others.
2. Demonstrate funding commitments from the EO Agencies for continued engagement, for initial data collection and analysis, and for improved communications and outreach.

Although conversations and work among EO Agencies, counties, and interested and affected parties have been preliminary, the EO Agencies anticipate more specific, functional recommendations would address the following:

1. Reporting and Data Recording – Improved data collection, management, analysis, sharing, and transparency at all levels is foundational to the ability to plan. Data analysis will allow for better coordination among stakeholders and improve on both long-term actions as well as immediate responses to drought risks, especially in rural communities.
2. Communications Planning – Improved monitoring and communications among stakeholders, from the State, through the counties, and to the water suppliers and citizens.
3. County Demonstration of Drought Planning – While some portion of a county’s citizenry may be covered by an urban supplier’s WSCP or a small suppliers’ drought plan (not required), there is nothing currently available to demonstrate that drought risk is being addressed for all county citizens. To address this need, counties may be required to submit drought planning information to the EO Agencies, possibly through documents such as:
  - a) A county Drought Response Plan.

- b) Drought-specific policies in a county General Plan.
  - c) Drought-specific protocols defined in a county (or multi-jurisdictional) Hazard Mitigation Plan.
  - d) A Groundwater Sustainability Plan.
4. Roles and Responsibilities – Defined State Agency and county roles, responsibilities, and funding mechanisms.
  5. Coordination – Coordination with SGMA efforts to assure drought planning and responses are reflected in Groundwater Sustainability Plans (where applicable).

### 3.3.4 Reporting, Compliance Assistance, and Enforcement

As the recommendations for satisfying EO Item 10 are still under development, no reporting, compliance assistance, or enforcement actions have been identified at this time but will be considered as development progresses.

## 3.4 Agricultural Water Management Plans

### 3.4.1 Current Status and Need for Change

#### *Current Status*

SB X7-7 requires agricultural water suppliers that provide water to more than 25,000 irrigated acres<sup>13</sup> to (1) adopt and submit AWMPs to DWR, and (2) implement Efficient Water Management Practices (EWMP) including the measurement and volumetric pricing of water deliveries, both on or before December 31, 2012. AWMPs must be updated on December 31, 2015, and every five years thereafter (CWC Section 10820 (a)).

Agricultural water suppliers that provide water to 10,000 and up to 25,000 irrigated acres<sup>14</sup> are

<sup>13</sup> Excluding acreage irrigated with recycled water.

<sup>14</sup> Excluding acreage irrigated with recycled water.

currently not required to prepare and submit plans unless State funds are available to support the planning efforts (CWC Section 10853). SB X7-7 permits water suppliers that are contractors under the Reclamation Reform Act or Central Valley Project Improvement Act requirements to submit their federal plans in lieu of a plan meeting the SB X7-7 criteria. Those suppliers must also provide additional information on water measurement and pricing to meet the SB X7-7 requirements of CWC Section 10608.48 and California Code of Regulations (CCR) Section 597. DWR's *Guidebook to Assist Agricultural Water Suppliers to Prepare a 2015 Agricultural Water management Plan* (June 2015) describes how federal plans can be supplemented to satisfy the CWC and CCR requirements.

Agricultural water suppliers are required to describe certain elements such as service area and infrastructure, the quantity and quality of water resources, water uses, previous water management activities and planned implementation of EWMPs, and an analysis on the effect of climate change under SB X7-7.

CWC Section 10608.48(d) requires that an agricultural water supplier include in its AWMP:

*...a report on which EWMPs have been implemented or are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and ten years in the future. If a supplier determines that a EWMP is not locally cost-effective or technically feasible, the supplier shall submit information documenting that determination.*

CWC Section 10608.48(a) requires that agricultural water suppliers implement EWMPs pursuant to CWC Sections 10608.48(b) and (c). Two critical EWMPs must be implemented by the agricultural water supplier serving 25,000 or more irrigated acres (CWC Section 10608.48(b)):

1. Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section CCR Section 531.1016.
2. Adopt a pricing structure for water customers based at least in part on quantity delivered.

CWC Section 10608.48(c) requires implementation of 14 EWMPs if locally cost-effective and technically-feasible. Agricultural water suppliers must adopt the plan by December 31, 2012, and update it by December 31, 2015, and every five years thereafter, and submit the plan to DWR within 30 days of adoption (CWC Section 10820 (a)). Since July 1, 2013, an agricultural water supplier subject to the SB X7-7 requirements must submit an AWMP and implement applicable EWMPs to be eligible for a water grant or loan awarded or administered by the State (CWC Section 10608.56(b) and 10852). Agricultural water suppliers not implementing all of the applicable EWMPs may become eligible for State grants and loans if agricultural water suppliers provide a schedule, financing plan, and budget for the implementation of the required EWMPs (CWC Section 10608.56(d)). Grant or loan funds may be requested to implement EWMPs to the extent the grant or loan proposal is consistent with the water fund eligibility requirements (CWC Section 10608.56(d)).

AWMPs adopted by agricultural water suppliers and updated every five years are meant to be planning documents to better manage water provided for irrigation and increase the efficiency of water use in agriculture. To make AWMPs better planning documents, EO B-29-15 of April 1, 2015, required that the 2015 AWMPs include a detailed drought management plan and quantification of water supplies and demands in 2013, 2014, and 2015, to the extent that data is available. EO B-29-15 also required that agricultural water suppliers that supply water to 10,000 to 25,000 acres of irrigated lands develop AWMPs and submit their plans to DWR by July 1, 2016.

### *Need for Change*

The EO recognizes that further improving water conservation in California will require progress in all sectors, including agriculture, and that there is a fundamental need for updating existing agricultural water management planning requirements to help advance the efficiency of agricultural water use and better prepare for periods of limited supply. This would entail updating AWMP requirements to include a drought planning component, as well as quantifiable measures to increase agricultural water use efficiency. To promote adequate drought planning across the agricultural sector, the EO requires more agricultural water suppliers to comply with the requirements by lowering the threshold of application to water suppliers with 10,000 acres of irrigated land. The EO Agencies also recognize the strong nexus of adequate agricultural water management strategies and implementation of SGMA, and propose a consistent methodology focusing on a supplier’s overall water budget that can contribute to compliance for both purposes.

### 3.4.2 EO Directive

EO Items 11, 12, and 13 state:

11. *The Department shall work with the California Department of Food and Agriculture to update existing requirements for Agricultural Water Management Plans to ensure that these plans identify and quantify measures to increase water efficiency in their service area and to adequately plan for periods of limited water supply.*
12. *The Department shall permanently require the completion of Agricultural Water Management Plans by water suppliers with over 10,000 irrigated acres of land.*
13. *The Department, together with the California Department of Food and Agriculture, shall consult with agricultural water suppliers, local governments, agricultural producers, environmental groups, and other partners to update requirements for Agricultural Water*

*Management Plans. The update draft requirements shall be publicly released by January 10, 2017.*

EO Item 6 requires EO Agencies to accelerate data collection and improve water system management and prioritize capital projects to reduce water waste. This applies to agricultural water suppliers as well and is covered in this section.

### 3.4.3 Recommendations

To satisfy the EO directive, DWR recommends that water suppliers comply with the following: (1) develop annual water budget for the agricultural water supplier's service area, (2) identify agricultural water supplier's water management objectives and implementation plan, (3) quantify measures to increase water use efficiency, (4) develop an adequate drought plan for periods of limited supply, and (5) extend the updated requirements to more water suppliers. The following discussion provides additional details in these five recommendation areas. This information would be included as components of a supplier's AWMP.

#### *Develop Annual Water Budget for the Agricultural Water Supplier's Service Area*

To make AWMPs more effective as planning tools and to help water suppliers identify areas where water efficiency improvements can be made, the proposed updated AWMP requirements would require suppliers to include in their plans annual water budgets that account for inflows to and outflows from the water supplier's service area. Including water budgets as part of the AWMP provides the following benefits:

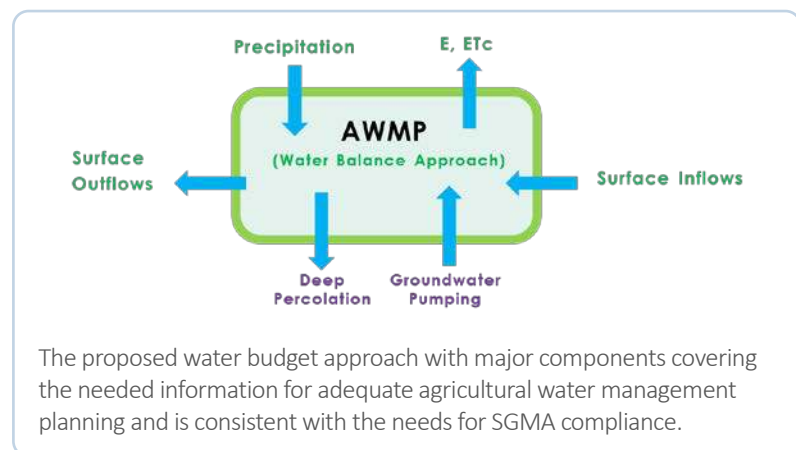
- Better quantifies the flows and uses of water within the supplier's service area and better estimates unmeasurable flows, such as deep percolation.

- Provides the data necessary to quantify water management efficiency within the service area.
- Helps identify and prioritize water loss.
- Aligns AWMP reporting with implementation of SGMA.

As a part of estimating water budget, water suppliers would be required to report all water inflow and outflow components from their service area. The water budget includes two components:

- **Water Budget Inflow.** This includes surface inflow, groundwater pumping in the service area (including private groundwater pumping), and effective precipitation.
- **Water Budget Outflow.** This includes surface outflow, deep percolation and evapotranspiration (E and ETC).<sup>15</sup>

Agricultural water suppliers are currently required (CWC Section 10826) to describe the quantity and quality of their water resources, water uses within the agricultural water supplier's service area, overall water budget, and water use efficiency information. However, the CWC does not currently



<sup>15</sup> Where E refers to evaporation and ETC refers to the evapotranspiration of crops. Evapotranspiration is the combined amount of water that enters the atmosphere by plant transpiration and surface evaporation.

require actual quantification of all components sufficient to develop a water budget.

To develop a service area water budget, the proposed revisions to the AWMP requirements would require agricultural water suppliers to quantify all currently reported components and to report on the quantity of two additional components: precipitation and private groundwater pumping.

The annual water budgets would be reported on a water year basis (beginning October 1 and ending September 31) to align with SGMA reporting requirements (CCR Section 350 et seq.).

The State, through the Agricultural Water Management Program or the Sustainable Groundwater Management program, may provide tools and resources to assist suppliers in developing and quantifying existing and new components.

#### *Identify Water Management Objectives and Implementation Plan*

The EO Agencies recommend an objective-based planning approach as part of the AWMP, in which water management objectives are identified along with actions to meet these objectives. From the water budget, agricultural water suppliers would identify and select supplier-specific water management objectives to improve water use efficiency or to meet other water management objectives. The proposed water budget approach would help agricultural water suppliers identify and prioritize water loss and identify ways to improve water system management.

In the AWMP, the supplier's objectives or intended results are identified (e.g., decrease percolation to saline ground, provide greater flexibility in irrigation deliveries), then specific efficient water management practices or measures are selected and implemented to achieve the results. Practices implemented to reduce water losses, improve water use efficiency, and attain other water management objectives would be included in an implementation plan as part of the overall AWMP.

#### *Quantify Measures to Increase Water Use Efficiency*

The proposed updates to the AWMP requirements would also require agricultural water suppliers to quantify the efficiency of agricultural water use within their service area. Agricultural water suppliers would choose the appropriate method(s) from amongst four efficiency quantification methods provided in the 2012 DWR report to the Legislature titled, "A Proposed Methodology for Quantifying the Efficiency of Agricultural Water Use." These methods can be used to calculate the ratio of beneficial water uses to amount of applied water and include the Crop Consumptive Use Fraction (CCUF), the Agronomic Water Use Fraction (AWUF), the Total Water Use Fraction (TWUF), and the Water Management Fraction (WMF). When choosing the appropriate water use fraction to determine water use efficiency, the agricultural water supplier needs to ensure that all water uses are taken into account including crop water use, agronomic water use, environmental water use, groundwater recharge, and recoverable surface flows.

The proposed water use fractions (described below) are practical methods for quantifying the efficiency of agricultural water use by irrigated agriculture and other beneficial uses that can help agricultural water suppliers evaluate current conditions and strategies for improving agricultural water management. All four methods described below are applicable for use at the basin- and supplier-scale. At the field-scale, only the first three methods are applicable.

##### **i. Crop Consumptive Use Fraction (CCUF)**

$$CCUF = ETAW / AW$$

**Evapotranspiration of Applied Water (ETAW)** is crop evapotranspiration minus the amount of precipitation evapotranspired by the crop.

**Applied Water (AW)** is the total volume of water that is applied within a boundary (e.g., field, supplier service area, or basin) in order

to meet the crop evapotranspiration, agronomic, and environmental uses from any source such as surface water (including tailwater<sup>16</sup> reuse), groundwater (public or private), and the initial soil moisture in the soil profile that is not from precipitation.

ii. **Agronomic Water Use Fraction (AWUF)**

$$AWUF = (ETAW + AU)/AW$$

**Agronomic Use (AU)** is the portion of applied water used for water management applications essential for crop production. Examples of essential water management applications include salinity management, frost control, and winter flooding for straw decomposition.

iii. **Total Water Use Fraction (TWF)**

$$TWUF = (ETAW + AU + EU)/AW$$

**Environmental Use (EU)** is the portion of applied water directed to environmental purposes, including water to produce and/or maintain wetlands, riparian, or terrestrial habitats.

iv. **Water Management Fraction**

$$WMF = (ETAW + RF)/AW$$

**Recoverable Flows (RF)** is the amount of water leaving a given area as surface flows to non-saline bodies or percolation to usable groundwater that is available for supply or reuse.

Components of these fractions may be empirical (measured or observed), modeled (calculated or estimated), or a combination, based on data availability and system complexity.

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<sup>16</sup> Tailwater refers to surface water runoff from a boundary. Tailwater may be captured and reused within (returned to) the boundary.

### *Develop a Drought Plan for Periods of Limited Supply*

The proposed updates to the AWMP requirements would also require agricultural water suppliers to include a Drought Plan. The Drought Plan should detail how the water supplier would prepare for droughts and manage water supplies and allocations during drought conditions. Some components or actions may require detailed review of conditions, policy changes, or long-term capital improvements. Additionally, as conditions change and new technology and knowledge becomes available, opportunities and constraints will change.

The Drought Plan should be prepared to provide adaptive management for and during periods of water shortages. Agricultural water suppliers would consider all items under each component and include a description of applicable items in their Drought Plan.

The Drought Plan would include a resilience component and an action plan, described below.

#### **Resilience Component**

The resilience component of the Drought Plan will include the following:

1. A description of what hydraulic levels or conditions (reservoir levels, stream flows, groundwater, snowpack etc.) are or should be monitored and measured to determine the water supply available and to identify levels of drought severity.
2. The supplier's policy or process for declaring a water shortage and for implementing the water shortage allocations and related actions.
3. A description and analysis of the agricultural water supplier's customers' vulnerability to drought (e.g., potential for crop idling, availability of multiple water sources and resilience of each source, existing water storage options).

4. A description of potential opportunities and constraints to improve drought resilience (e.g., improved groundwater or surface water storage potential, acres of permanent crops, environmental use requirements, overdrafted groundwater basin).
5. A description of actions implemented or planned for implementation to improve drought resilience (e.g., potential for improved on-farm water use efficiency measures, groundwater and surface water conjunctive use management, crop idling, and development of alternative supplies such as recycled water or tailwater reuse).
6. Discussion of the potential, if possible, for the supplier to obtain or use additional water supplies during drought conditions. These supplies could include transfers from another water agency or supplier, the use of recycled water and desalination of brackish groundwater or drainage water.
7. A description of the cost for implementing the resilience plan.

**Action Plan**

The Action Plan will include the following:

1. Allocation Policies – A description of the water shortage allocation policies as required by the Water Code. Water suppliers would describe their program or process for how water is allocated during a water shortage in the Drought Plan or attach a copy of their water shortage allocation policy to their AWMP.
2. Operational Adjustments – Changes in supplier water management and operations to respond to drought, including canal and reservoir operations and groundwater management.
3. Demand Management – Policies and incentives in addition to the water shortage allocation plan to lower on-farm water use.

4. Coordination and Collaboration – Include a description on how coordination and collaboration with other local suppliers, water agencies, or regional groups will be used in drought response.
5. Revenues and Expenditures – Describe how the drought and lower water allocations will affect the supplier’s revenues and expenditures.

*Extend Requirements to More Agricultural Water Suppliers*

The proposed updates to the AWMP requirements would extend the requirement for AWMPs to include agricultural water suppliers supplying water to more than 10,000 acres of irrigated land, excluding recycled water.

**3.4.4 Reporting, Compliance Assistance, and Enforcement**

*Reporting*

All agricultural water suppliers providing water supplies to 10,000 or more irrigated acres, excluding recycled water, would be required to prepare and adopt an AWMP on or before April 1, 2021, and every five years thereafter. Agricultural water suppliers would continue to be required to submit their plans to DWR within 30 days of adoption. A water supplier that provides both urban and agricultural supplies, and is subject to both UWMP and AWMP reporting, may satisfy the AWMP requirements by adopting an UWMP that accounts for its agricultural water use and meets both requirements.

Reclamation Reform Act and Central Valley Project water suppliers that submit water conservation plans to Reclamation may still submit those plans to DWR, along with supplemental information, including: a Drought Plan for all suppliers, and water measurement and volumetric pricing for those water suppliers providing water to 25,000 irrigated acres or more, excluding recycled water (CCR Section 597.1(a) and CWC Section 10608.48(b)).

AB 1404 (Statutes of 2007, Chapter 675) requires that all agricultural water suppliers supplying 2,000 acre-feet or more of surface water annually for agricultural purposes or serving 2,000 or more acres of agricultural land must submit an annual aggregated farm-gate delivery report to DWR. Per AB 1404, an agricultural water supplier will:

- Provide DWR with monthly or bimonthly aggregated farm-gate deliveries on an annual basis, along with information on their farm-gate measurement program or practices to document that they are using "Best Professional Practices;" or
- Provide DWR with information that documents that the implementation of a program or practices to measure farm-gate deliveries using Best Professional Practices is not locally cost effective.

For the purpose of aligning agricultural water supplier annual reporting with SGMA reporting requirements, EO Agencies recommend that the annual aggregated farm-gate delivery reporting requirements for agricultural water suppliers providing water to over 10,000 irrigated acres only, be replaced by the following:

*Agricultural water suppliers serving more than 10,000 acres of irrigated land, excluding recycled water, would submit an annual report for the prior year to DWR by April 1 of each year. The annual report should include the water budget inflow and outflow components for the preceding water year: surface inflow, supplier's groundwater pumping in the service area, effective precipitation, surface outflow, and deep percolation.*

When tools and resources are made available by the State, the annual report would also include private groundwater pumping in the service area and evapotranspiration.

### Compliance Assistance

DWR will assist agricultural water suppliers in several ways:

1. AWMP Guidebook – DWR would update the AWMP Guidebook to help agricultural water suppliers better understand the CWC AWMP requirements and assist them in developing an AWMP. The Guidebook would also describe how water conservation plans submitted to Reclamation can be supplemented to satisfy the CWC and Agricultural Water Measurement Regulation requirements.
2. AWMP Workshops – Prior to finalizing the AWMP Guidebook, DWR would release a draft and hold public workshops to give opportunity for stakeholders to comment on the draft guidelines. Additional workshops would be conducted after releasing the final Guidebook.
3. California Irrigation Management Information System – DWR would continue to support and update the California Irrigation Management Information System (CIMIS) to provide climate data and resources (e.g., precipitation, crop use coefficients) necessary for calculating components of the water budget and water use efficiency fractions.
4. Water Use Efficiency Calculator – DWR would make available the water use efficiency calculator being developed and tested by the University of California through Proposition 50 and Proposition 1 grants.

The EO Agencies further recommend that DWR, through the Agricultural Water Management Program or the Sustainable Groundwater Management Program, consider providing additional tools and resources to assist suppliers in quantifying water budget components pertaining to evapotranspiration of applied water and private groundwater pumping. Examples of these tools and resources include remote sensing for measurement of actual evapotranspiration, and



models or tools for calculating deep percolation to groundwater.

DWR will lead the compliance review for submitted plans, data, and information, which are due by April 1 starting in 2021. The compliance schedule is outlined below:

1. DWR will provide an updated list of agricultural water suppliers required to submit plans to CDFA and the Water Board by March 1, 2020, and every five years thereafter.
2. DWR will continue to review each plan for meeting the requirements, including the updated and new components, as they are received. However, DWR will expedite the review if an agricultural water supplier is seeking a State grant or loan with a specific deadline. DWR may coordinate with the Water Board and CDFA on the review.
3. DWR will inform the Water Board and CDFA of the plan submittal status and review status, and post the information on DWR's website for public reference.
4. If a plan has not been submitted by July 1, 2021, and every five years thereafter or is incomplete following review, DWR will notify the agricultural water supplier, and will work with the supplier to develop a plan for corrective actions and completing the plan.
5. If the agricultural water supplier fails to submit a plan by October 31, 2021, and every five years thereafter or does not submit a plan within the negotiated plan and schedule for completion, DWR will notify the Water Board and CDFA of non-compliance for enforcement actions.

### *Enforcement*

Water suppliers would continue to be required to have a current AWMP that has been reviewed by DWR and found to have addressed all the required elements to be eligible for State grant and loan funding.

The Water Board, in addressing agricultural suppliers that have not submitted AWMPs or have not revised AWMPs to correct identified deficiencies, may consider further enforcement actions including potential fines and civil penalties.

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# Chapter 4 – Implementing the Conservation Framework



*The heightened awareness of water scarcity and the severity of our current drought have prompted Californians to achieve new levels of conservation and resiliency. As proposed by the EO Agencies herein, the conservation framework provides the foundation needed to transform these emergency accomplishments into a long-term, sustainable water use practice for all Californians.*

## 4.1 Conservation as an Integral Part of Water Management

Conservation alone cannot ensure a long-term sustainable water supply and drought protection for all Californians; however, a deep-rooted conservation ethos is fundamental to changing individual and societal behaviors and making progress toward these desired outcomes.

Conservation and drought protection are but two of the focus areas of the Water Action Plan 2016 Update, along with integrated water management, Sacramento-San Joaquin Delta management, ecosystem restoration, storage, and flood protection. The Water Action Plan also calls for increasing operational and regulatory efficiencies and identifying sustainable, integrated financing opportunities.

The framework presented in this report is designed to be part of the broader, multi-faceted implementation of the Water Action Plan. The EO Agencies will continue to work collaboratively, while maintaining open and transparent dialogue and technical exchange throughout implementation.

## 4.2 Support for Framework Implementation

As described below, several components are critical to enabling implementation of the recommended framework outlined herein.

### 4.2.1 Legislation and Regulatory Rulemaking

Many recommendations of the EO Agencies will require new and/or expanded authorities to execute. For those recommendations that fall within the existing authorities of the EO Agencies, rulemaking processes may still be needed to formalize requirements.

For recommendations related to existing authorities, the EO Agencies will conduct rulemaking processes that provide opportunities for input and comment from stakeholders, interested parties, and the public.

For recommendations requiring new authorities, the EO Agencies will coordinate with the Governor's Office in seeking amendments to existing codes, and the Legislature, as appropriate. Anticipated code amendments to support framework implementation include the following:

- **Establish New Water Use Standards and Targets:** CWC sections 10610-10656 for UWMPs; a new section added to CWC to establish and implement standards and water use targets, with associated changes in CWC Section 10608 related to existing conservation requirements.
- **Strengthening Water Shortage Contingency Planning:** CWC sections 350-359 and California Government Code sections 8550-8551 regarding emergency declaration; CWC sections 10631, 10632, and 10635 for required information reporting.

- **Improve Drought Planning for Small Water Suppliers and Rural Communities:** To be determined through continued collaboration of the EO Agencies and stakeholders, potentially requiring new language in the CWC.
- **Strengthening Requirements for Agricultural Water Management:** CWC sections 10800-10845 for AWMPs.

#### 4.2.2 Continued Collaboration on Water Use Standard Development

In implementing this proposed conservation framework, the EO Agencies will establish water standards for implementation by 2021. Recognizing that water use efficiency is one component of sustainable water management, the EO Agencies will seek to balance the need for conservation with the need for water suppliers to continue investing in water supply portfolio diversification, including water reuse, desalination, storage and conjunctive use, stormwater capture, and sustainable groundwater use.

The EO Agencies will continue to collaborate with stakeholders and subject matter experts to ensure adequate progress is made in standard development and that the resulting standards will be implementable. For example, the need to establish a CII Technical Workgroup has already been identified through the current stakeholder engagement process. This workgroup will assist the EO Agencies with development of appropriate CII classifications and corresponding performance measures.

### 4.3 Implementation Considerations

The EO Agencies appreciate the long-term commitment and investment required by water suppliers throughout California in implementing the proposed long-term framework. To facilitate the success in implementation, the EO Agencies recognize the importance of the following considerations.

- **Coordination, Collaboration, and Advocacy:** The EO Agencies will continue to coordinate and collaborate to ensure that the framework is implemented as envisioned, providing improved drought protection for all communities and embodying water conservation in every aspect of our daily lives.

The extraordinary conservation accomplished during the current drought was attributable in part to a strong, persistent, and active campaign and outreach led by the EO Agencies to promote conservation, combined with mandatory conservation requirements imposed by the Water Board. Active messaging and outreach efforts on conservation by the EO Agencies and suppliers will provide strong support to water suppliers in their efforts to promote conservation. Water use education and advocacy must continue after the drought emergency is lifted.

- **Water Rates and Proposition 218:** The EO Agencies recognize that State financial assistance, when available, will never be sufficient for water suppliers to implement all necessary actions to comply with the requirements outlined in the framework. It will be important that water suppliers have the ability to generate funding for their investment needs and stabilized revenue for steady improvements.

The EO Agencies acknowledge the expressed challenges by water suppliers in generating sufficient local funding to support continued conservation effort and other needed investment due to potential limitations of existing law and regulations such as Proposition 218. While the framework does not contain requirements on rate structures, the EO Agencies encourage water suppliers to adopt conservation-oriented water rates and/or use a rate stabilization reserve fund to better manage revenue fluctuations that

occur during droughts or other unexpected conditions. Each water supplier should customize its rate structure with full consideration of its cost of service and with long-term financial sustainability as the goal.





- **Coordination with Land Use Agencies and Other Jurisdictions:** The EO Agencies recognize that land use agencies (i.e., cities and counties) have direct responsibilities and jurisdictions over zoning and land development, landscape requirements, and various ministerial and discretionary permits that can positively influence direct conservation and complementary actions as well as advocacy by water suppliers. Where appropriate, the EO Agencies may facilitate communications and collaboration throughout implementation.

## 4.4 Implementation Schedule

The schedule for implementation of the proposed actions and recommendations identified in Chapters 2 and 3 is summarized in Figure 4-1.

Any new and/or expanded authorities required for framework implementation may be addressed during the 2017 and 2018 legislative sessions. Note that the implementation process outlined in the proposed framework is subject to change based on updated information, or subsequent legislation and rulemaking.

Figure 4-1. Anticipated Implementation Timeline for EO Directives

Executive Order Items	Timeline for Actions and Implementation					
	2017	2018	2019	2020	2021	Beyond
 <b>Using Water More Wisely</b>						
<b>Emergency Conservation Regulations (EO Item 1)</b>						
Conservation Requirements	█					
<b>New Water Use Targets (EO Items 2 and 6)</b>						
Data, Legislative Action, & Rulemaking	█	█	█	█		
Targets Reporting		█	█	█	█	
Full Compliance Achieved						2025
<b>Permanent Monthly Reporting (EO Item 3)</b>						
Rulemaking	█					
 <b>Eliminating Water Waste</b>						
<b>Water Use Prohibitions (EO Item 4)</b>						
Rulemaking	█					
<b>Minimizing Water Loss (EO Items 5 and 6)</b>						
Annual Water Loss Audits		█	█	█	█	█
Water Loss Rulemaking	█	█	█	█		
<b>Innovative Water Loss &amp; Control Technologies (EO Item 7)</b>						
Scope Development	█					
Pre-rulemaking Activities & Rulemaking		█	█	█		
 <b>Strengthening Local Drought Resilience</b>						
<b>Water Shortage Contingency Plans (EO Items 8, 9, and 6)</b>						
Legislative Action & Rulemaking	█	█	█	█		
Requirements in Effect				█	█	█
<b>Drought Contingency Planning for Small Water Suppliers &amp; Rural Communities (EO Item 10)</b>						
Development schedule to be determined	█					
 <b>Improving Agricultural Efficiency and Drought Planning</b>						
<b>Strengthened Agricultural Water Management Plan requirements (EO Items 11, 12, 13, 6)</b>						
Guidelines development, Legislative Action & Rulemaking	█	█	█			
Reporting requirements				█	█	█

# ATTACHMENT A:

## Executive Order B-37-16

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# Executive Department

State of California

## EXECUTIVE ORDER B-37-16 MAKING WATER CONSERVATION A CALIFORNIA WAY OF LIFE

**WHEREAS** California has suffered through a severe multi-year drought that has threatened the water supplies of communities and residents, devastated agricultural production in many areas, and harmed fish, animals and their environmental habitats; and

**WHEREAS** Californians responded to the drought by conserving water at unprecedented levels, reducing water use in communities by 23.9% between June 2015 and March 2016 and saving enough water during this period to provide 6.5 million Californians with water for one year; and

**WHEREAS** severe drought conditions persist in many areas of the state despite recent winter precipitation, with limited drinking water supplies in some communities, diminished water for agricultural production and environmental habitat, and severely-depleted groundwater basins; and

**WHEREAS** drought conditions may persist in some parts of the state into 2017 and beyond, as warmer winter temperatures driven by climate change reduce water supply held in mountain snowpack and result in drier soil conditions; and

**WHEREAS** these ongoing drought conditions and our changing climate require California to move beyond temporary emergency drought measures and adopt permanent changes to use water more wisely and to prepare for more frequent and persistent periods of limited water supply; and

**WHEREAS** increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change; and

**WHEREAS** these activities are prioritized in the California Water Action Plan, which calls for concrete, measurable actions that "Make Conservation a California Way of Life" and "Manage and Prepare for Dry Periods" in order to improve use of water in our state.

**NOW, THEREFORE, I, EDMUND G. BROWN JR.,** Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular California Government Code sections 8567 and 8571, do hereby issue this Executive Order, effective immediately.

**IT IS HEREBY ORDERED THAT:**

The orders and provisions contained in my January 17, 2014 Emergency Proclamation, my April 25, 2014 Emergency Proclamation, Executive Orders B-26-14, B-28-14, B-29-15, and B-36-15 remain in full force and in effect except as modified herein.

State agencies shall update temporary emergency water restrictions and transition to permanent, long-term improvements in water use by taking the following actions.

**USE WATER MORE WISELY**

1. The State Water Resources Control Board (Water Board) shall, as soon as practicable, adjust emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions across the state. To prepare for the possibility of another dry winter, the Water Board shall also develop, by January 2017, a proposal to achieve a mandatory reduction in potable urban water usage that builds off of the mandatory 25% reduction called for in Executive Order B-29-15 and lessons learned through 2016.
2. The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010).) These water use targets shall be customized to the unique conditions of each water agency, shall generate more statewide water conservation than existing requirements, and shall be based on strengthened standards for:
  - a. Indoor residential per capita water use;
  - b. Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data;
  - c. Commercial, industrial, and institutional water use; and
  - d. Water lost through leaks.

The Department and Water Board shall consult with urban water suppliers, local governments, environmental groups, and other partners to develop these water use targets and shall publicly issue a proposed draft framework by January 10, 2017.

3. The Department and the Water Board shall permanently require urban water suppliers to issue a monthly report on their water usage, amount of conservation achieved, and any enforcement efforts.

## **ELIMINATE WATER WASTE**

4. The Water Board shall permanently prohibit practices that waste potable water, such as:
  - Hosing off sidewalks, driveways and other hardscapes;
  - Washing automobiles with hoses not equipped with a shut-off nozzle;
  - Using non-recirculated water in a fountain or other decorative water feature;
  - Watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and
  - Irrigating ornamental turf on public street medians.
5. The Water Board and the Department shall direct actions to minimize water system leaks that waste large amounts of water. The Water Board, after funding projects to address health and safety, shall use loans from the Drinking Water State Revolving Fund to prioritize local projects that reduce leaks and other water system losses.
6. The Water Board and the Department shall direct urban and agricultural water suppliers to accelerate their data collection, improve water system management, and prioritize capital projects to reduce water waste. The California Public Utilities Commission shall order investor-owned water utilities to accelerate work to minimize leaks.
7. The California Energy Commission shall certify innovative water conservation and water loss detection and control technologies that also increase energy efficiency.

## **STRENGTHEN LOCAL DROUGHT RESILIENCE**

8. The Department shall strengthen requirements for urban Water Shortage Contingency Plans, which urban water agencies are required to maintain. These updated requirements shall include adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. While remaining customized according to local conditions, the updated requirements shall also create common statewide standards so that these plans can be quickly utilized during this and any future droughts.
9. The Department shall consult with urban water suppliers, local governments, environmental groups, and other partners to update requirements for Water Shortage Contingency Plans. The updated draft requirements shall be publicly released by January 10, 2017.

10. For areas not covered by a Water Shortage Contingency Plan, the Department shall work with counties to facilitate improved drought planning for small water suppliers and rural communities.

### **IMPROVE AGRICULTURAL WATER USE EFFICIENCY AND DROUGHT PLANNING**

11. The Department shall work with the California Department of Food and Agriculture to update existing requirements for Agricultural Water Management Plans to ensure that these plans identify and quantify measures to increase water efficiency in their service area and to adequately plan for periods of limited water supply.
12. The Department shall permanently require the completion of Agricultural Water Management Plans by water suppliers with over 10,000 irrigated acres of land.
13. The Department, together with the California Department of Food and Agriculture, shall consult with agricultural water suppliers, local governments, agricultural producers, environmental groups, and other partners to update requirements for Agricultural Water Management Plans. The updated draft requirements shall be publicly released by January 10, 2017.

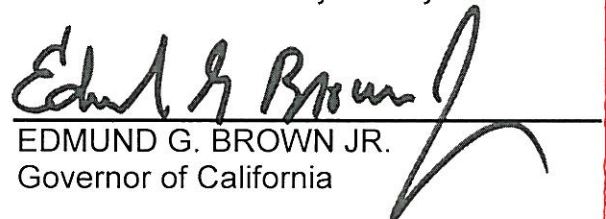
The Department, Water Board and California Public Utilities Commission shall develop methods to ensure compliance with the provisions of this Executive Order, including technical and financial assistance, agency oversight, and, if necessary, enforcement action by the Water Board to address non-compliant water suppliers.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

**I FURTHER DIRECT** that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this order.



**IN WITNESS WHEREOF** I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 9th day of May 2016.

  
EDMUND G. BROWN JR.  
Governor of California

**ATTEST:**

  
ALEX PADILLA  
Secretary of State

# ATTACHMENT B:

## Public Outreach and Stakeholder Engagement

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On May 9, 2016 Governor Edmund G. Brown Jr. issued Executive Order B-37-16 directing State Agencies to establish a long-term framework for water conservation and drought planning that builds on the conservation accomplished during the historical drought and implementation of the Governor’s Water Action Plan. The named agencies include DWR, Water Board, CPUC, CDFA, and CEC (collectively, the EO Agencies). The full text of the EO can be found at the Governor’s Office Website, <https://www.gov.ca.gov/docs/5.9.16 Attested Drought Order.pdf>, or in Attachment A to this report.

The EO Agencies have developed a collaborative program to formulate the long-term framework for water conservation and drought planning called for by the EO with extensive public outreach and stakeholder engagement. In addition to public input throughout the process, the EO Agencies formed the Urban Advisory Group and Agricultural Advisory Group to provide input into the framework development. These advisory groups represent urban and agricultural water suppliers, local governments, professional associations, academics, environmental advocacy groups, and other interested parties. The framework development, associated public outreach and stakeholder engagement process, and public comments received are available at DWR’s website, <http://www.water.ca.gov/wateruseefficiency/conservation/>.

The following provides a list of public outreach and stakeholder engagement meetings throughout the process in developing the report (in chronological order) after the issuance of the EO on May 9, 2016.

Date	Event	Location
June 3, 2016	Listening Session #1 for the Directives of Executive Order B-37-16	Sacramento, CA
June 6, 2016	Listening Session #2 for the Urban Directives of Executive Order B-37-16	Los Angeles, CA
June 7, 2016	Listening Session #2 for the Listening Session Agricultural and County Drought Planning Directives of Executive Order B-37-16	Tulare, CA
August 15, 2016	EO B-37-16 Urban Advisory Group Meeting #1	Sacramento, CA
August 25, 2016	EO B-37-16 Agricultural Advisory Group Meeting #1	Sacramento, CA
August 31, 2016	EO B-37-16 Water Shortage Contingency Planning Workshop #1	Sacramento, CA
September 1, 2016	EO B-37-16 Water Shortage Contingency Planning Workshop #2	Fountain Valley, CA
September 6, 2016	EO B-37-16 Long-Term Water Use Targets Workshop #1	Oakland, CA
September 8, 2016	EO B-37-16 Long-Term Water Use Targets Workshop #2	Los Angeles, CA
September 19 and 20, 2016	EO B-37-16 Urban Advisory Group Meeting #2	Los Angeles, CA
September 26, 2016	EO B-37-16 Agricultural Advisory Group Meeting #2	Madera, CA

<b>Date</b>	<b>Event</b>	<b>Location</b>
October 3, 2016	EO B-37-16 Water Shortage Contingency Planning Technical Workshop #2	Sacramento, CA
October 5, 2016	State Water Resources Control Board Workshop on EO B-37-16 and Implementation	Sacramento, CA
October 11, 2016	CEC Staff Workshop Innovative Water Conservation and Water Loss Detection and Control Technologies	Sacramento, CA
October 13, 2016	EO B-37-16 Water Shortage Contingency Planning Workshop – Focus on Drought Planning for Small Water Suppliers and Rural Communities	Sacramento, CA
October 18, 2016	EO B-37-16 Agricultural Advisory Group Meeting #3	Sacramento, CA
October 20, 2016	EO B-37-16 Urban Advisory Group Meeting #3	Sacramento, CA
December 7, 2016	EO B -37-16 Agricultural Advisory Group and Urban Advisory Group Public Draft Report Meeting	Sacramento, CA

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : COST-OF-LIVING ADJUSTMENT TO SALARY SCHEDULE, RETIREE  
INSURANCE BENEFITS AND DIRECTORS' COMPENSATION

STATUS : Action Item

REPORT DATE : December 05, 2016

PREPARED BY : Susan K. Sohal, Accounting Supervisor  
Hilary M. Straus, General Manager

### **OBJECTIVE:**

1. Consider amending District Policy No. 4101.A1 to include a Cost-of-Living Adjustment to the District's Salary Schedule effective January 01, 2017;
2. Consider amending District Policy No. 4831, Insurance Benefits for Retirees Retiring After March 19, 1996 for consistency with the amended Salary Schedule and other proposed revisions; and
3. Provide direction to staff regarding a Cost-of-Living Adjustment for Compensation of the Board of Directors.

### **BACKGROUND AND ANALYSIS:**

#### *Cost-of-Living Adjustment to District Salary Schedule*

District Human Resources Policy No. 4102, Salary Cost of Living Adjustments COLA (Attachment 1) provides for considering a Cost-of-Living Adjustment (COLA) to the District's salary schedule upon recommendation by the General Manager and approval by the Board of Directors. The consumer price index for all urban west consumers (CPI-U) has increased by 2.3 percent for the twelve-month period ending in October 2016 (Attachment 2) received from the U.S. Department of Labor. This is the baseline that the District uses annually in determining the COLA.

Included with this report is the current Salary Schedule Policy No. 4101.A1 (Attachment 3), and a proposed amended Salary Schedule that includes salary range adjustments that reflect the recommended 2.3 percent increase. The amended schedule shows salary ranges based upon hourly rates and a calculated average monthly rate based upon the hourly rate. Dollar amounts on the schedule are rounded to the nearest whole cent or dollar as applicable. The District's 2017 budget provided for a combined increase of up to 4.5 percent in merit adjustments of salary and Cost of Living Adjustments (COLA). The effective date of the amended policy will be January 09, 2017, which is the start of the first full bi-weekly pay period in 2017.

#### *Retiree Insurance Benefits*

District Human Resources Policy No. 4831 Insurance Benefits for Retirees Retiring After March 19, 1996 provides that the amount of District financial participation in retiree health insurance set forth in the policy will be amended annually in the amount of the percent change in the CPI-U referenced above. A copy of Policy No. 4831 (Attachment 4) with the monthly amounts amended by a 2.3 percent increase is included with this report.

Cost-of-Living Adjustment for Directors' Compensation

The Board of Directors approved Ordinance No. 01-2008 (Attachment 5) on January 8, 2008 setting Directors' compensation at \$145.00 per day for attending Board meetings and other Board-sanctioned functions. This amount is still in effect today. Under this Ordinance and District Board of Directors and Officers Policy 2040 (Attachment 6), changes in compensation of Directors requires approval of the Board of Directors (adoption of a new ordinance adjusting the compensation) during an Open Session at a Regular Meeting held at least 60 days prior to the effective date of the change.

A 2.3 percent COLA increase in Directors' compensation would result in an increase of \$3.34 in the daily compensation rate, making the rate \$148.34.

Although not previously approved, the cumulative effect of CPI-U changes since the date of the Board's most recent increase is as follows:

2008 Directors' Compensation Rate	\$145.00
2009 COLA (October 2008 CPI-U), +3.3%	\$149.79
2010 COLA (October 2009 CPI-U), -0.3%	\$149.34
2011 COLA (October 2010 CPI-U), +0.6%	\$150.24
2012 COLA (October 2011 CPI-U), +3.4%	\$155.35
2013 COLA (October 2012 CPI-U), +2.5%	\$159.23
2014 COLA (October 2013 CPI-U), +0.9%	\$160.66
2015 COLA (October 2014 CPI-U), +2.0%	\$163.87
2016 COLA (October 2015 CPI-U), +1.1%	\$165.67
2017 COLA (October 2015 CPI-U), +2.3%	\$169.48

If the Board wishes to consider adopting an increase in Director's compensation, a new ordinance will need to be prepared for consideration at a future Board meeting. If adopted, the ordinance would go into effect 60 days following adoption, pursuant to provisions of the State Water Code.

**RECOMMENDATION:**

1. Amend District Policy No. 4101.A1 Salary Schedule (Attachment 1) as presented to include a +2.3 percent Cost-of-Living Adjustment to the District's Salary Schedule effective January 09, 2016; and
2. Amend District Policy 4831 Insurance Benefits for Retirees Retiring After March 19, 1996 (Attachment 4) as presented to include a +2.3 percent Cost-of-Living Adjustment to the monthly insurance benefit amount for retirees to reflect said adjustments in the CPI-U; and
3. Provide direction to staff regarding a Cost-of-Living Adjustment for Compensation of the Board of Directors (Attachment 6).

**ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_



**Attachments:**

- 1) Policy No. 4102 – Salary Cost of Living Adjustments COLA
- 2) Consumer Price Index, October 2016
- 3) Policy No. 4101.A1 – Salary Schedule
- 4) Policy No. 4831 – Retiree Insurance Benefits
- 5) Ordinance No. 01-008 – Director’s Compensation
- 6) Policy No. 2040 – District Board of Directors and Officers

Attachment 1

Policy No. 4102 Salary Cost of Living  
Adjustments COLA

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : SALARY COST OF LIVING ADJUSTMENTS (COLA)  
POLICY NUMBER : 4102  
DATE ADOPTED : JUNE 3, 1992  
DATE AMENDED : DECEMBER 8, 2009  
AMENDMENTS : (1) OCTOBER 17, 1995; (2) MAY 3, 1999; (3) DECEMBER 8, 2003;  
(4) DECEMBER 14, 2004; (5) DECEMBER 13, 2005; (6) DECEMBER 12, 2006  
(7) JANUARY 13, 2009

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4102.00                    SALARY COST OF LIVING ADJUSTMENTS (COLA)

The Cost of Living Adjustment (COLA) is reviewed on an annual basis by the General Manager. Any recommendations for COLA adjustments are then submitted to the District's Board of Directors for review and final approval.

The Consumer Price Index for All Urban West Consumers (CPI-U) is to be used as a guideline. The current salary schedule will typically be reviewed in December and the salary ranges amended by a COLA as necessary, effective January 1 of each year to reflect the CPI-U percentage change for all urban west consumers during the latest twelve month reporting period (typically October to October). Cost of Living Adjustments are to be applied regardless of position within a salary range.

Unless otherwise directed by the Board of Directors, individual employee salaries shall increase by the same percentage amount as the COLA adopted by the Board of Directors, but individual employee salaries will not be reduced by a decrease in the COLA.

4102.10                    Salary Survey

In the event that the District's salary schedule is amended due to a salary survey (see Policy 4101), amendment of the current salary schedule by a COLA will not apply.

4102.20                    COLA for Reclassified Employees

Salary Cost of Living Adjustments for employees that are reclassified are addressed in the District's Reclassification Policy (see Policy 4130).

4102.30                    COLA for Part-Time and Temporary Employees

Hourly wage rates for Part-Time Employees and Temporary Employees hired directly by the District will not be amended due to a salary cost of living adjustment.

4102.40                    COLA for Temporary Personnel

Hourly wage rates for Temporary Personnel working for the District through an employment service will not be amended due to a salary cost of living adjustment.

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Attachment 2  
Consumer Price Index, October 2016

# CONSUMER PRICE INDEXES PACIFIC CITIES AND U. S. CITY AVERAGE

**October 2016**

## ALL ITEMS INDEXES

(1982-84=100 unless otherwise noted)

MONTHLY DATA	All Urban Consumers (CPI-U)						Urban Wage Earners and Clerical Workers (CPI-W)					
	Indexes			Percent Change			Indexes			Percent Change		
				Year ending	1 Month ending					Year ending	1 Month ending	
	Oct 2015	Sep 2016	Oct 2016	Sep 2016	Oct 2016	Oct 2016	Oct 2015	Sep 2016	Oct 2016	Sep 2016	Oct 2016	Oct 2016
U. S. City Average.....	237.838	241.428	241.729	1.5	1.6	0.1	232.373	235.495	235.732	1.2	1.4	0.1
(1967=100).....	712.458	723.210	724.113	-	-	-	692.167	701.467	702.172	-	-	-
Los Angeles-Riverside-Orange Co.....	245.812	250.145	251.098	1.9	2.2	0.4	237.472	240.851	241.932	1.5	1.9	0.4
(1967=100).....	726.237	739.038	741.855	-	-	-	701.801	711.788	714.984	-	-	-
West .....	244.341	249.234	249.897	2.0	2.3	0.3	236.728	241.052	241.744	1.7	2.1	0.3
(Dec. 1977 = 100) .....	394.963	402.873	403.945	-	-	-	380.882	387.839	388.953	-	-	-
West – A*.....	250.362	255.975	256.771	2.4	2.6	0.3	241.060	245.778	246.569	1.9	2.3	0.3
(Dec. 1977 = 100) .....	408.250	417.403	418.702	-	-	-	390.230	397.866	399.147	-	-	-
West – B/C**(Dec. 1996=100).....	144.379	146.130	146.328	1.1	1.3	0.1	143.771	145.726	145.974	1.1	1.5	0.2

BI-MONTHLY DATA	All Urban Consumers (CPI-U)						Urban Wage Earners and Clerical Workers (CPI-W)					
	Indexes			Percent Change			Indexes			Percent Change		
				Year ending	2 Months ending					Year ending	2 Months ending	
	Oct 2015	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Oct 2016	Oct 2015	Aug 2016	Oct 2016	Aug 2016	Oct 2016	Oct 2016
San Francisco-Oakland-San Jose.....	261.019	267.853 <sup>R</sup>	270.306	3.1 <sup>R</sup>	3.6	0.9	256.107	262.326 <sup>R</sup>	264.026	2.4 <sup>R</sup>	3.1	0.6
(1967=100).....	802.446	823.455 <sup>R</sup>	830.996	-	-	-	779.868	798.803 <sup>R</sup>	803.982	-	-	-
Seattle-Tacoma-Bremerton.....	250.831	256.907	256.941	2.1	2.4	0.0	246.307	252.393	252.639	2.0	2.6	0.1
(1967=100).....	764.629	783.154	783.256	-	-	-	730.547	748.598	749.328	-	-	-

\* A = 1,500,000 population and over

\*\* B/C = less than 1,500,000 population

Dash (-) = Not Available.

R = Revised

Release date Nov. 17, 2016. The next monthly releases are scheduled for Dec. 15, 2016. The next bi-monthly releases are scheduled for Jan. 18, 2017.

Please note: Customers can receive hotline information by calling the BLS West Region Information Office: (415) 625-2270.

**This card is available on the day of release by electronic distribution. Just go to [www.bls.gov/bls/list.htm](http://www.bls.gov/bls/list.htm) and sign up for the free on-line delivery service. For questions, please contact us at [BLInfoSF@BLS.GOV](mailto:BLInfoSF@BLS.GOV) or (415) 625-2270.**

## Attachment 3

# Policy 4101.A1 - Salary Schedule

CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

POLICY TYPE : HUMAN RESOURCES  
 POLICY TITLE : COMPENSATION-ATTACHMENT 1: SALARY SCHEDULE  
 POLICY NUMBER : 4101.A1  
 DATE ADOPTED : JANUARY 1, 1994  
 DATE AMENDED : ~~NOVEMBER 03, 2016~~ DECEMBER 13, 2016  
 DATE EFFECTIVE : ~~NOVEMBER 03, 2016~~ JANUARY 09, 2016  
 AMENDMENTS : (1) 01/01/95; (2) 05/24/95; (3) 01/02/96; (4) 01/07/97; (5) 01/06/98; (6) 06/02/98; (7) 10/06/98;  
 (8) 01/05/99; (9) 05/03/99; (10) 01/04/00; (11) 01/02/01; (12) 03/06/01; (13) 01/08/02 (14) 01/07/03; (15) 10/07/03;  
 (16) 12/08/03; (17) 12/14/04; (18) 12/13/05; (19) 03/01/06; (20) 12/12/06; (21) 12/11/07; (22) 04/14/09; (23) 12/08/09; (24)  
 12/14/10 (25) 05/10/10; (26) 07/12/11; (27) 12/13/11; (28) 04/10/12; (29) 12/11/12; (30) 01/14/14; (31) 8/12/14;(32)12/9/14;  
 (33)12/8/15;(34) 1/11/16; (35) 3/24/16; (36) 5/10/16; (37) 9/13/16; (38) 11/03/16

JOB TITLE / JOB CLASS	HOURLY AND MONTHLY* SALARY RANGE							
	2016 Base Hourly	2017 Base Hourly	2016 Base Monthly	2017 Base Monthly	2016 Max. Hourly	2017 Max. Hourly	2016 Max. Monthly	2017 Max. Monthly
<b><u>Organizational Leadership</u></b>								
General Manager (E)	<del>74.19</del>	75.90	<del>12,860.00</del>	13,156.00	<del>100.16</del>	102.47	<del>17,361.00</del>	17,761.47
Assistant General Manager (E)	<del>62.13</del>	63.56	<del>10,769.27</del>	11,017.07	<del>83.88</del>	85.81	<del>14,538.51</del>	14,873.73
<b><u>Accounting Series</u></b>								
Finance Manager/Administrative Services Manager (E)	<del>56.48</del>	57.78	<del>9,790.24</del>	10,015.20	<del>76.25</del>	78.01	<del>13,216.83</del>	13,521.73
Accounting Supervisor/Principal Accountant (E)	<del>41.37</del>	42.33	<del>7,170.80</del>	7,337.20	<del>55.85</del>	57.14	<del>9,680.67</del>	9,904.27
Senior Accountant	<del>35.4</del>	36.22	<del>6,136.30</del>	6,278.13	<del>47.79</del>	48.89	<del>8,284.00</del>	8,474.27
Accountant	<del>32.18</del>	32.93	<del>5,578.45</del>	5,707.87	<del>43.45</del>	44.45	<del>7,530.91</del>	7,704.67
<b><u>Customer Service Series</u></b>								
Senior Customer Services Specialist	<del>30.78</del>	31.49	<del>5,335.62</del>	5,458.27	<del>41.56</del>	42.52	<del>7,203.09</del>	7,370.13
Customer Service Specialist	<del>27.82</del>	28.46	<del>4,822.07</del>	4,933.07	<del>37.56</del>	38.43	<del>6,509.80</del>	6,661.20
Customer Service Technician II	<del>25.29</del>	25.88	<del>4,383.70</del>	4,485.87	<del>34.14</del>	34.93	<del>5,918.00</del>	6,054.53
Customer Service Technician I	<del>22.99</del>	23.52	<del>3,985.19</del>	4,076.80	<del>31.04</del>	31.76	<del>5,380.00</del>	5,505.07
Customer Service Representative	<del>21.05</del>	21.54	<del>3,648.89</del>	3,733.60	<del>28.42</del>	29.08	<del>4,926.00</del>	5,040.53
<b><u>Engineering Technical Series</u></b>								
Project Manager (E)	<del>44.59</del>	45.62	<del>7,728.93</del>	7,907.47	<del>60.19</del>	61.58	<del>10,432.93</del>	10,673.87
Engineering Supervisor/Principal GIS Specialist (E)	<del>34.73</del>	35.53	<del>6,019.19</del>	6,158.53	<del>46.88</del>	47.96	<del>8,125.90</del>	8,313.07
Engineering/GIS Specialist	<del>30.2</del>	30.90	<del>5,234.07</del>	5,356.00	<del>40.77</del>	41.71	<del>7,066.00</del>	7,229.73
Engineering/GIS Technician	<del>27.45</del>	28.09	<del>4,758.25</del>	4,868.93	<del>37.06</del>	37.92	<del>6,423.64</del>	6,572.80
Engineering Aide	<del>23.87</del>	24.42	<del>4,137.61</del>	4,232.80	<del>32.23</del>	32.98	<del>5,585.77</del>	5,716.53
<b><u>Construction Inspection Series</u></b>								
Construction Inspection Supervisor/Principal Construction Inspector (E)	<del>36.26</del>	37.10	<del>6,285.81</del>	6,430.67	<del>48.96</del>	50.09	<del>8,485.85</del>	8,682.27
Senior Construction Inspector	<del>31.53</del>	32.26	<del>5,465.93</del>	5,591.73	<del>42.57</del>	43.55	<del>7,379.00</del>	7,548.67

Construction Inspector	<del>28.67</del>	29.33	<del>4,969.02</del>	5,083.87	<del>38.7</del>	39.60	<del>6,708.18</del>	6,864.00
<b><u>Engineering Series</u></b>								
Engineering Manager/District Engineer (E)	<del>62.13</del>	63.56	<del>10,769.27</del>	11,017.07	<del>83.88</del>	85.81	<del>14,538.51</del>	14,873.73
Principal Civil Engineer (E)	<del>56.48</del>	57.78	<del>9,790.24</del>	10,015.20	<del>76.25</del>	78.01	<del>13,216.83</del>	13,521.73
Senior Civil Engineer (E)	<del>51.35</del>	52.54	<del>8,900.22</del>	9,106.93	<del>69.32</del>	70.92	<del>12,015.30</del>	12,292.80
Associate Civil Engineer	<del>46.68</del>	47.76	<del>8,091.11</del>	8,278.40	<del>63.02</del>	64.47	<del>10,923.00</del>	11,174.80
Assistant Civil Engineer	<del>40.59</del>	41.53	<del>7,035.75</del>	7,198.53	<del>54.8</del>	56.07	<del>9,498.26</del>	9,718.80
Assistant Engineer	<del>32.42</del>	33.17	<del>5,619.46</del>	5,749.47	<del>43.84</del>	44.85	<del>7,598.93</del>	7,774.00
<b><u>Management Services (MS) Series</u></b>								
Senior MS Supervisor/Chief Board Clerk (E)	<del>40.89</del>	41.84	<del>7,087.42</del>	7,252.27	<del>55.2</del>	56.47	<del>9,568.02</del>	9,788.13
Management Services Supervisor/Chief Board Clerk (E)	<del>38.94</del>	39.84	<del>6,749.93</del>	6,905.60	<del>52.57</del>	53.78	<del>9,112.40</del>	9,321.87
Senior Management Services Specialist	<del>33.86</del>	34.64	<del>5,869.50</del>	6,004.27	<del>45.71</del>	46.77	<del>7,923.83</del>	8,106.80
Management Services Specialist	<del>30.78</del>	31.49	<del>5,335.91</del>	5,458.27	<del>41.56</del>	42.52	<del>7,203.48</del>	7,370.13
Management Services Technician	<del>27.99</del>	28.64	<del>4,850.83</del>	4,964.27	<del>37.78</del>	38.65	<del>6,548.62</del>	6,699.33
<b><u>Water Distribution Series</u></b>								
Operations Manager (E)	<del>56.48</del>	57.78	<del>9,790.24</del>	10,015.20	<del>76.25</del>	78.01	<del>13,216.83</del>	13,521.73
Water Distribution Supervisor (E)	<del>42.84</del>	43.83	<del>7,424.92</del>	7,597.20	<del>57.83</del>	59.17	<del>10,023.64</del>	10,256.13
Assistant Water Distribution Supervisor	<del>36.62</del>	37.47	<del>6,348.33</del>	6,494.80	<del>49.44</del>	50.58	<del>8,570.25</del>	8,767.20
Water Distribution Lead Worker/Operator	<del>31.85</del>	32.59	<del>5,520.29</del>	5,648.93	<del>42.99</del>	43.98	<del>7,452.39</del>	7,623.20
Water Distribution Operator II	<del>28.95</del>	29.62	<del>5,018.44</del>	5,134.13	<del>39.09</del>	39.99	<del>6,774.90</del>	6,931.60
Water Distribution Operator I	<del>26.32</del>	26.93	<del>4,562.22</del>	4,667.87	<del>35.53</del>	36.35	<del>6,159.00</del>	6,300.67
Water Distribution Worker	<del>19</del>	19.44	<del>3,292.59</del>	3,369.60	<del>25.64</del>	26.23	<del>4,445.00</del>	4,546.53
<b><u>Operations Specialist Series</u></b>								
Principal Operations Specialist	<del>42.84</del>	43.83	<del>7,424.92</del>	7,597.20	<del>57.83</del>	59.17	<del>10,023.64</del>	10,256.13
Senior Operations Specialist	<del>38.94</del>	39.84	<del>6,749.93</del>	6,905.60	<del>52.57</del>	53.78	<del>9,112.40</del>	9,321.87
Operations Specialist	<del>33.44</del>	34.21	<del>5,796.30</del>	5,929.73	<del>45.14</del>	46.18	<del>7,825.01</del>	8,004.53
Operations Technician	<del>30.4</del>	31.10	<del>5,269.37</del>	5,390.67	<del>41.04</del>	41.99	<del>7,113.65</del>	7,278.27
<b><u>Water Efficiency Series</u></b>								
Water Efficiency Supervisor (E)	<del>33.55</del>	34.33	<del>5,815.44</del>	5,950.53	<del>45.29</del>	46.34	<del>7,850.84</del>	8,032.27
Senior Water Efficiency Specialist	<del>29.17</del>	29.85	<del>5,056.90</del>	5,174.00	<del>39.39</del>	40.30	<del>6,826.82</del>	6,985.33
Water Efficiency Specialist	<del>26.52</del>	27.13	<del>4,597.19</del>	4,702.53	<del>35.81</del>	36.64	<del>6,206.20</del>	6,350.93
Water Efficiency Technician	<del>24.11</del>	24.67	<del>4,179.26</del>	4,276.13	<del>32.55</del>	33.30	<del>5,642.00</del>	5,772.00
<b><u>Water Resources Series</u></b>								
Water Resources Supervisor/Chief Operator (E)	<del>42.84</del>	43.83	<del>7,424.92</del>	7,597.20	<del>57.83</del>	59.17	<del>10,023.64</del>	10,256.13
Water Resources Specialist	<del>30.44</del>	31.15	<del>5,276.74</del>	5,399.33	<del>41.1</del>	42.05	<del>7,123.60</del>	7,288.67
Water Resources Technician	<del>27.68</del>	28.32	<del>4,797.04</del>	4,908.80	<del>37.36</del>	38.22	<del>6,476.00</del>	6,624.80
<b><u>Miscellaneous Series</u></b>								
Intern	<del>11</del>	11.26	<del>1,907.00</del>	1,951.73	<del>22</del>	22.51	<del>3,813.00</del>	3,901.73

(E) = Exempt

\*Monthly Salaries are average monthly compensation over a 12-month period based on the Hourly Salary Range.



Attachment 4

Policy 4831 – Retiree Insurance Benefits

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : INSURANCE BENEFITS FOR RETIREES RETIRING AFTER  
MARCH 19, 1996  
POLICY NUMBER : 4831  
DATE ADOPTED : MARCH 19, 1996  
DATE AMENDED : ~~DECEMBER 08, 2015~~ DECEMBER 13, 2016  
DATE EFFECTIVE : JANUARY 01, 2016 JANUARY 01, 2017  
AMENDMENTS : (1) JANUARY 16, 2001; (2) JANUARY 8, 2002; (3) JANUARY 7, 2003;  
(4) JANUARY 1, 2004; (5) FEBRUARY 10, 2004; (6) DECEMBER 13, 2005;  
(7) DECEMBER 12, 2006; (8) DECEMBER 11, 2007; (9) JANUARY 13, 2009;  
(10) DECEMBER 8, 2009 (11) DECEMBER 14, 2010; (12) DECEMBER 13, 2011;  
(13) DECEMBER 11, 2012; (14) DECEMBER 10, 2013; (15) DECEMBER 9, 2014;  
(16) DECEMBER 08, 2015

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4831.00                    INSURANCE BENEFITS FOR RETIREES

Citrus Heights Water District will participate in the cost of health, dental and vision insurance coverage for retired employees and their qualified spouse, registered domestic partner, and dependents based upon length of employment with the District.

4831.10                    LENGTH OF EMPLOYMENT AND ELIGIBILITY

For the purpose of calculating the length of employment to determine the District's participation in the cost of insurance benefits for retirees, total employment calculated/credited by PERS as years of service as an employee of Citrus Heights Water District shall be the basis and shall not include credit for years of service attributed to accrued sick leave or credit for purchased years of service time. Such employment shall be cumulative and need not be continuous. No credit will be provided for employment with the District in a Temporary capacity.

Employees must have been employed by the District for a minimum of twenty (20.00) years to qualify for benefits under this Policy. Employees retiring from the District with less than twenty (20.00) years of service do not qualify for benefits under this Policy.

4831.20                    APPLICATION OF POLICY

This policy shall apply to employees retiring from the District following the date of its adoption, March 19, 1996.

Insurance benefits afforded to employees that retired prior to the adoption of this policy shall continue to be governed by the policies, terms, or conditions existing at the time of said prior retirements (see Policy 4830).

4831.30

QUALIFICATION OF SPOUSE/REGISTERED DOMESTIC PARTNER/DEPENDENTS

The spouse, registered domestic partner and/or dependents of the employee as of the date of retirement from the District are eligible to participate in the benefits of this Policy. A spouse, registered domestic partner and/or dependents added after retirement are not eligible for participation. Qualified dependent children are eligible to participate up to the age limits as defined by state and/or federal health care regulations.

4831.40

SELECTION OF BENEFITS

A retiree can choose either to obtain health, dental and vision insurance on their own for themselves and their qualified dependents or, at the time of retirement, the retiree and each dependent covered under the District’s insurance plans, while the retiree was on active status, will be offered the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) option to continue health insurance coverage under the “qualifying event” provision as set forth in the law.

Retirees or their surviving dependents, as defined in Section 4831.30 of this policy, shall be eligible to receive reimbursement from the District in an amount not to exceed the maximum District financial participation shown in Section 4831.50 of this Policy. Reimbursement shall be made only upon presentation of written proof of coverage and proof of payment in a form acceptable to the District. Written proof of coverage must be provided to the Human Resources Department at the beginning of each calendar year before any reimbursement will be issued for the remainder of that year.

4831.50

DISTRICT PARTICIPATION

The District's financial participation under this Policy is dependent upon the length of employment with the District as follows:

<u>Length of Employment</u>	<u>Maximum Monthly District Participation</u>
20.00 years	<del>\$321.00</del> \$328.00
25.00 years	<del>\$361.00</del> \$369.00
30.00 years	<del>\$402.00</del> \$411.00

No credit, cash back refund, or other consideration will be provided for any unused portion of the maximum District participation.

The Maximum Monthly District Participation shall be amended as of and effective January 1 of each year by the percent change in the Consumer Price Index for All Urban West Consumers (CPI-U) during the latest twelve month reporting period (typically October to October) unless otherwise determined by the Board of Directors. Said amendments shall be rounded up to the nearest whole dollar amount.

Unless otherwise directed by the Board of Directors, the monthly amount of reimbursement received by eligible retirees will be increased by any increase pursuant to the paragraph above, but will not be

reduced by a decrease in the Maximum Monthly District Participation amount.

The District shall report contributions and make withholdings from contributions in accordance with applicable requirements of the Internal Revenue Service, the California State Franchise Tax Board and any and all other legal requirements. Retirees bear sole responsibility for the tax consequences of District contributions.

4831.85                    DEATH OF RETIREE

In the event of a retiree's death, a surviving qualified spouse, registered domestic partner, and/or dependents may choose to continue to participate in the benefits of this Policy. A spouse that remarries or a registered domestic partner that enters into another domestic partnership or marries is no longer eligible for participation.

4831.86                    DEATH OF QUALIFIED EMPLOYEE

In the event of the death, prior to retirement, of a District employee who otherwise has met the length of employment requirements necessary to qualify for insurance benefits for retirees, the surviving spouse, registered domestic partner and/or dependents may choose to participate in the benefits under the terms of this Policy.

4831.90                    AMENDMENTS

The District reserves the right to amend or discontinue this Policy at its sole discretion at any time.

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## Attachment 5

### Ordinance No. 01-2008 – Director's Compensation

CITRUS HEIGHTS WATER DISTRICT  
ORDINANCE NO. 01-2008  
FIXING THE COMPENSATION OF THE BOARD OF DIRECTORS

BE IT ORDAINED by the Board of Directors of CITRUS HEIGHTS WATER DISTRICT as follows:

SECTION 1

Pursuant to the provisions of the State of California Water Code Section 20200 et seq., each Director of the District shall receive the sum of One Hundred Forty Dollars (\$145.00) per day, not exceeding ten days in any calendar month, for sitting on the Board or acting under its orders.

SECTION 2

In addition to the compensation provided for in Section 1 hereof, each Director shall be entitled to receive actual and necessary expenses when acting under the orders of the Board, subject to those policies and procedures for expenses adopted by Board of Directors.

SECTION 3

Changes in the compensation of Directors shall require the approval of the Board of Directors during an Open Session at a Regular Meeting of the Board of Directors held at least 60 days prior to the effective date of the change in compensation. Review of this Ordinance shall be performed annually during an Open Session at a Regular Meeting of the Board of Directors, concurrent with the annual review of the Salary Schedule for District employees.

SECTION 4


Pursuant to the provisions of State of California Water Code Section 20204 et seq., this ordinance shall become effective sixty (60) days from the date of its adoption.

PASSED AND ADOPTED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT this 8th day of January 2008 by the following vote:

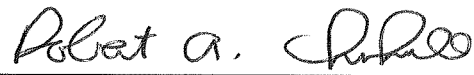
AYES:	Directors:	Dains, Dion, Rose
AYES:	Directors:	None
NOES:	Directors:	None
ABSENT:	Directors:	None

SEAL



  
JOSEPH M. DION, President  
Board of Directors  
Citrus Heights Water District

ATTEST:

  
ROBERT A. CHURCHILL, Secretary  
Citrus Heights Water District

## Attachment 6

### Policy 2040 District Board of Directors and Officers

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : BOARD OF DIRECTORS AND OFFICERS  
POLICY TITLE : COMPENSATION AND REIMBURSEMENT FOR DIRECTORS  
AND OFFICERS  
POLICY NUMBER : 2040  
DATE ADOPTED : MARCH 7, 1995  
DATE AMENDED : SEPTEMBER 14, 2004  
AMENDMENTS :

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2040.00      DIRECTOR'S COMPENSATION

Each member of the Board of Directors, upon submittal of a monthly "Statement of Meetings Attended & Claim for Director's Compensation" (See attachment 2040.A2) to the District Secretary, shall be entitled to receive compensation, in a dollar amount as specified by Citrus Heights Water District Ordinance Fixing the Compensation of the Board of Directors, per day or partial day for attendance at meetings of the Board and District related functions. Compensation will be limited to a total of ten (10) days in any calendar month.

Changes in the compensation of Board members shall require the approval of the Board during an Open Session at a Regular Meeting of the Board of Directors held at least 60 days prior to the effective date of the change in compensation (see Water Code Section 20204 et seq. and Policy No. 2100).

Review of the Ordinance Fixing the Compensation of the Board of Directors shall be performed annually during an Open Session at a Regular Meeting of the Board of Directors, concurrent with the annual review of the Salary Schedule for District employees.

2040.10      Officer's Compensation

The Board appointed District Secretary, District Treasurer, and District Assessor/Collector shall not be compensated for their duties as District Officers.

2040.20      Reimbursement

District Officers and each member of the Board of Directors shall be entitled to reimbursement for actual and necessary expenses incurred in performance of their duties required or authorized by the Board. Reimbursements shall be subject to written documentation and shall be limited to imposed maximums (i.e.: meal expenses, travel expenses, etc.).

2040.30      Approval

Reimbursement pursuant to Section 2040.20 for actual and necessary expenses to the Directors and Officers shall be reviewed and approved monthly by the Board of Directors as part of their review of the Treasurer's report and accounts payable.

2040.90      Reporting



An annual report shall be prepared by the Treasurer quantifying meeting attendance, compensation, and expenses for members of the Board of Directors and District Officers.

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# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : HUMAN RESOURCES POLICY AMENDMENTS  
 STATUS : Action Item  
 REPORT DATE : December 07, 2016  
 PREPARED BY : Susan K. Sohal, Accounting Supervisor  
 Hilary M. Straus, General Manager

### **OBJECTIVE:**

Consider approving an amendment to the following District Human Resources Policy: Policy 4101.A2.01 – Other Compensation.

### **BACKGROUND AND ANALYSIS:**

Pursuant to District Policy 4101.A2.01 (copy attached), Non-Exempt Regular Employees are authorized to receive other compensation when qualified as a certified Water System Operator and Water Treatment Operator by the State Water Resources Control Board.

The District's FLSA (Fair Labor Standards Act) Exempt status has been historically assigned to Department Heads (Senior Management). District Policy 4101.A2.01 Other Compensation authorizes non-exempt employee compensation to receive certification pay when qualified as a Certified California State Water Distribution System Operator and/or Certified California State Water Treatment Operators. Recently, non-department heads (Senior Management) employees have entered into an Employment Agreements with the District and have been converted to FLSA Exempt status. Currently, policy does not authorize the other compensation, provided by the District, to FLSA exempt employees. Certification Pay is compensation reportable for the purposes of calculating the CalPERS (California Public Employee's Retirement System) pension benefit for the Tier 1 and Tier 2 (Classic) Employees.

Proposed amendments to Policy 4101.A2.01, accompanying this staff report, would include FLSA exempt employees, non-department heads, to receive compensation for Certification Pay in addition to their regular compensation.

### **RECOMMENDATION:**

Approve the proposed amendment to the following District Human Resources Policy: Policy 4101.A2.01 – Other Compensation

### **ACTION:**

Moved by Director \_\_\_\_\_, Seconded by Director \_\_\_\_\_, Carried \_\_\_\_\_

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CITRUS HEIGHTS WATER DISTRICT  
POLICIES AND PROCEDURES MANUAL

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POLICY TYPE : HUMAN RESOURCES  
POLICY TITLE : COMPENSATION-ATTACHMENT 2: OTHER COMPENSATION  
POLICY NUMBER : 4101.A2  
DATE ADOPTED : JUNE 1, 1995  
DATE AMENDED : ~~MAY 10, 2016~~ DECEMBER 13, 2016  
DATE EFFECTIVE : ~~MAY 10, 2016~~ DECEMBER 14, 2016  
AMENDMENTS : (1) JANUARY 2, 1996; (2) SEPTEMBER 15, 1998; (3) DECEMBER 7, 1999;  
(4) JANUARY 2, 2001; (5) MARCH 6, 2001; (6) OCTOBER 7, 2003;  
(7) DECEMBER 8, 2003; (8) DECEMBER 13, 2005; (9) OCTOBER 14, 2008;  
(10) APRIL 13, 2010; (11) AUGUST 11, 2015; (12) NOVEMBER 10, 2015; (13) JANUARY  
1, 2016; (14) MAY 10, 2016

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4101.A2.01            NON-EXEMPT REGULAR EMPLOYEES

In addition to ~~other hourly~~ salary compensation received, FLSA (Fair Labor Standards Act) exempt, who are not department heads (Senior Management), and non-exempt Regular Employees (see Policy 4001) are authorized to receive the following compensation:

Certified California State Water Distribution System Operators (see Policy 4401)

Grade	D1	\$ 20.00 / month
Grade	D2	\$ 40.00 / month
Grade	D3	\$ 60.00 / month
Grade	D4	\$ 80.00 / month
Grade	D5	\$100.00 / month

Certified California State Water Treatment Operators (see Policy 4401)

Grade	T1	\$ 20.00 / month
Grade	T2	\$ 40.00 / month
Grade	T3	\$ 60.00 / month
Grade	T4	\$ 80.00 / month
Grade	T5	\$100.00 / month

Standby Duty (see Policy 4120)

Regular Work Days	\$ 30.00 / day
Friday	\$ 75.00 / day
Saturday	\$ 75.00 / day
Sunday	\$ 75.00 / day
District Holidays	\$ 30.00 / day

4101.A2.02            PART-TIME EMPLOYEES

The following standard hourly wage rate range for Part-Time Employees (see Policy 4001) is:

California Minimum Wage to \$ 22.50 / hour

4101.A2.03            TEMPORARY EMPLOYEES

The following standard hourly wage rate range for Temporary Employees (see Policy 4001) is:

California Minimum Wage to \$ 22.50 / hour

4101.A2.04            OUT-OF-CLASS PAY

At times, the District needs to temporarily assign an existing employee to perform a more complex level of work or additional work in a higher, equivalent or subordinate position. This need may arise due to a vacancy created by an extended leave, resignation or retirement.

In order to qualify for Out-of-Class Pay, an employee must be assigned in writing by the General Manager or General Manager's Designee to perform the duties of another job classification due to a temporary vacancy extending for a period of more than eight (8) consecutive working days, holidays excluded. Assigned employees will be compensated at a five percent (5%) increase of their current hourly rate of pay in recognition of the increased responsibilities and additional workload. This Out-of-Class rate of pay increase is temporary in nature and will remain in effect until the assignment is complete.

The maximum duration of the temporary assignment is one year. If the need arises to extend the assignment past one year, written justification must be provided by the General Manager and filed in the employee's personnel file. This written justification must include the completion date of the temporary assignment. This Policy section pertains to all positions that report to and/or are subordinate to the General Manager.

4101.A2.05            PERSONAL CELLULAR TELEPHONE REIMBURSEMENT

District Department Managers will receive a monthly stipend in the amount of \$30 to use District sanctioned personal cellular telephones. This stipend will be paid through payroll quarterly. If an employee obtains or currently has a plan that exceeds the monthly stipend, Citrus Heights Water District will not be liable for the cost difference. The device remains the property of the employee who is responsible for all repairs or replacement of the device.

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# CITRUS HEIGHTS WATER DISTRICT

## PROJECT MANAGER'S REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

SUBJECT : PROJECT MANAGER'S REPORT  
 STATUS : Information Item  
 REPORT DATE : December 6, 2016  
 PREPARED BY : Paul A. Dietrich, Project Manager

Significant assignments and activities for the Project Manager (PM) and District engineering, construction inspection, and geographical information system maintenance staff are summarized below. I will be available at the meeting to answer questions and/or provide additional details.

*New values or projects noted in bold italics*

### **PM-1 ACCEPTED WATER SYSTEMS**

Recent additions to the District's water distribution system that were constructed by independent State Licensed contractors on behalf of private developers / owners, inspected by the District and formally accepted:

<u>Project</u>	<u>Count</u>	<u>Facilities</u>	<u>Value</u>
<b><i>Citrus Heights City Hall 6350 Fountain Square Dr (2015-54)</i></b>	<b><i>1,187 l.f. 37 l.f. 177 l.f. 3 4 2 5 1 1 1 1</i></b>	<b><i>8-Inch DIP Water Main 8-Inch PVC Water Main 6-Inch DIP Water Main 8-Inch Gate Valve 6-Inch Gate Valve 6-Inch Post Indicator Valve Steamer Fire Hydrant 2-Inch Metered Water Service 1 ½-Inch Metered Water Service 2-Inch Blow-off 1-Inch Air Vacuum Valve</i></b>	<b><i>\$155,300.00</i></b>
<b><i>Bearpaw Expansion Commercial Building 7524 Old Auburn Rd (2015-59)</i></b>	<b><i>12 l.f. 1 1</i></b>	<b><i>8-Inch DIP Water Main 8-Inch Gate Valve 6-Inch Post Indicator Valve</i></b>	<b><i>\$10,000.00</i></b>
<b><i>Sunrise Mall Parking Lot 6198 Sunrise Blvd (2016-50)</i></b>	<b><i>1</i></b>	<b><i>2-Inch Metered Irrigation Service</i></b>	<b><i>\$6,000.00</i></b>

### **PM-2 PROJECTS UNDER CONSTRUCTION BY PRIVATE DEVELOPERS**

Water distribution system facilities currently under construction by independent State Licensed contractors on behalf of private developers / owners requiring District inspection:

<u>Project</u>	<u>Location</u>	<u>Status</u>
Northridge Grove 47 Condominiums (2013-59)	5555 Mariposa Ave	85% Complete
<i>Commercial Building Remodel (2016-51)</i>	<i>5414-50 Sunrise Blvd</i>	<i>Pre-Construction Meeting 12/1/16</i>

### **PM-3 CONTRACTOR / DEVELOPER PROJECTS PENDING CONSTRUCTION**

<u>Project</u>	<u>Location</u>	<u>Status</u>
Louis-Orlando Bus Transfer Point (2015-66)	Louis Ln @ Orlando Ave	Plans Signed 2/4/16
Meier Estates 7 Lot Subdivision (2015-68)	North Sims Way	Plans Signed 5/23/16
Dignity Health Building (2015-55)	7115 Greenback Ln	Plans Signed 6/8/16
<i>3 Lot Residential (2015-67)</i>	<i>5648-96 San Juan Ave</i>	<i>Plans Signed 11/14/16</i>

### **PM-4 PROPOSED DISTRICT CAPITAL IMPROVEMENT PROJECTS**

Project Plans and Contracts currently under review and development by the Engineering Department:

<u>Project</u>	<u>Location</u>	<u>Status</u>
Fair Way Intertie with City of Roseville (2011-01)	9955 Fair Way	Agreement – 99% Plans – 100% Cost Estimate – 100%
Blossom Hill Dr Intertie with City of Roseville (2012-09)	Blossom Hill Dr at 1100 Main Sail Cir	Agreement – 99% Plans – 100% Cost Estimate – 100%

<u>Project</u>	<u>Location</u>	<u>Status</u>
Crestmont Ave Intertie with City of Roseville (2012-10)	Crestmont Ave at 8199 Bonnie Oak Way	Agreement – 99% Plans – 100% Cost Estimate – 100%
Corporation Yard Improvements Phase 1 Domenichelli and Associates, Inc. (2015-02)	6230 Sylvan Road	<b><i>Trees Trimmed and Cleared. City Review Underway.</i></b>
<b><i>Operations Building Remodel (2017-33)</i></b>	<b><i>6230 Sylvan Road</i></b>	<b><i>Recommendation for Architectural Services at 1/10/16 Meeting.</i></b>
<b><i>Mesa Verde High School 14-Inch Transmission Main Bennett Engineering, Inc. (2015-36)</i></b>	<b><i>Northwest Corner of Property</i></b>	<b><i>Easement Complete. Tree Trimming and Clearing 12/27 and 12/28.</i></b>
Highland Ave & Rosa Vista Ln 8” Water Mains Warren Consulting Engineers (2015-33)	Highland Ave at Rosa Vista Ln	Reviewing 30% Submittal

**PM-5 PROJECTS CONTRACTED BY CITRUS HEIGHTS WATER DISTRICT**

Capital Improvement Projects currently under construction by Citrus Heights Water District contractors requiring coordination and inspection by the District:

None

**PM-6 CITY OF CITRUS HEIGHTS PROJECTS**

City of Citrus Heights Projects requiring coordination and inspection by the District:

None

**CITRUS HEIGHTS WATER DISTRICT**  
**OPERATIONS MANAGER'S REPORT TO BOARD OF DIRECTORS**  
**DECEMBER 13, 2016 REGULAR MEETING**

SUBJECT : Operations Manager's Report  
 STATUS : Information Item  
 REPORT DATE : November 30, 2016

Facilities Maintenance	Completed WO's			Completed WO's	
	Current Mth	Year to Date		Current Mth	Year to Date
Backflow Maintenance		1	Meter Register Replacement	21	183
Blow Off Maintenance		44	Meter Repair/Test/Maintenance		7
Hydrant Maintenance	49	168	Pot Hole Work		10
Leak Investigation		6	Water Service repair/locate	1	21
Mainline Repair/Maintenance		17	Valve, Mainline Maintenance	91	1,186
Meter Box Maintenance	8	45	Valve Box Maintenance	4	13

CIP Projects	Completed WO's		YTD Quantity			YTD Financial Impact		
	Current Mth	Year to Date	Budget	Ft/ Each	Under (Over)	Total Cost to date	Budget	Under (Over)
2016-10 Water Mainline		2	100	28	72	\$ 14,613.00	\$ 28,465.00	\$ 13,852.00
2016-11 Water Valves		18	25	ea	7	\$ 104,688.00	\$ 91,281.00	\$ (13,407.00)
2016-12 Water Services	27	273	555	ea	282	\$ 685,835.00	\$ 757,685.00	\$ 71,850.00
2016-13 Water Meters	43	146	91	ea	(55)	\$ 80,246.00	\$ 53,158.00	\$ (27,088.00)
2016-14 Fire Hydrants		13	32	ea	19	\$ 80,093.00	\$ 147,092.00	\$ 66,999.00
2016-33 Limerick Way, Galway Ct, Tipperary Way, Dublin Way		29	-	1044	(1,044)	\$ 240,788.00	\$ 350,000.00	\$ 109,212.00

**Water Quality**

*Water Analysis Report: Bacteriological testing has met all California Department of Public Health requirements. 72 samples were collected with no positive results.*



**CITRUS HEIGHTS WATER DISTRICT**  
**OPERATIONS MANAGER'S REPORT TO BOARD OF DIRECTORS**  
**DECEMBER 13, 2016 REGULAR BOARD MEETING**

SUBJECT : 2016 WATER SUPPLY - PURCHASED & PRODUCED  
 STATUS : Information Item  
 REPORT DATE : December 6, 2016  
 PREPARED BY : Brian M. Hensley, Water Resources Supervisor

**OBJECTIVE:**

Report on annual water supply including comparison with prior years and current 5 - 10% voluntary reduction directive.

Month	2013	2014	2015	2016				Year-to-Date Comparison to 2013	
	acre feet			Surface Water Purchased	Ground Water Produced	Total Water Monthly	Total Water Annual	acre feet	%
	acre feet			acre feet				acre feet	%
Jan	602.52	602.39	570.05	463.53	76.07	539.60	539.60	-62.92	-10.4%
Feb	606.36	450.96	511.52	387.51	97.02	484.53	1,024.13	-184.75	-15.3%
Mar	819.55	612.20	725.95	442.62	74.94	517.56	1,541.69	-486.74	-24.0%
Apr	1,029.73	737.30	761.02	609.95	67.86	677.81	2,219.50	-838.66	-27.4%
May	1,603.43	1,190.07	869.08	882.03	97.46	979.49	3,198.99	-1,462.60	-31.4%
Jun	1,816.73	1,548.66	1,065.10	1,270.95	72.81	1,343.76	4,542.75	-1,935.57	-29.9%
Jul	2,059.21	1,622.10	1,184.95	1,418.32	126.25	1,544.57	6,087.32	-2,450.21	-28.7%
Aug	1,924.28	1,477.49	1,188.18	1,456.87	122.93	1,579.80	7,667.12	-2,794.69	-26.7%
Sep	1,509.82	1,275.11	1,069.78	1,161.21	96.70	1,257.91	8,925.03	-3,046.60	-25.4%
Oct	1,297.42	1,030.74	918.67	708.13	132.67	840.80	9,765.83	-3,503.22	-26.4%
Nov	911.55	682.48	589.6	416.22	145.60	561.82	10,327.65	-3,852.95	-27.2%
Dec	700.94	563.15	519.57						
<b>Total</b>	14,881.54	11,792.65	9,973.47	9,217.34 89.25%	1,110.31 10.75%	10,327.65	10,327.65		

# CITRUS HEIGHTS WATER DISTRICT

## DISTRICT STAFF REPORT TO BOARD OF DIRECTORS DECEMBER 13, 2016 REGULAR MEETING

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SUBJECT : SURFACE WATER SUPPLY  
STATUS : Information Item  
REPORT DATE : December 7, 2016  
PREPARED BY : David M. Gordon, Operations Manager

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**OBJECTIVE:**

Receive status report on surface water supplies available to the District.

**BACKGROUND AND ANALYSIS:**

As of midnight on December 6, 2016, storage in Folsom Lake was at 463,794 acre-feet, 47 percent of the total capacity of 977,000 acre-feet. This is about 99 percent of historical average for this date. This represents an increase in storage of 102,363 acre-feet in the past month.

The District's total water use during the month of November 2016 (561.82 acre-feet) was 38.4% below that of November 2013 (911.55 acre-feet).

CHWD continues to assist with preserving surface water supplies in the Lake by operating its groundwater wells. All District wells (Bonita, Mitchell Farms, Palm, Skycrest, Sylvan and Sunrise) remain operational and are being operated on a rotational, or as-needed, basis.

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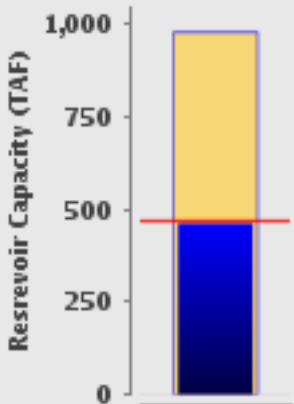


# Reservoir Conditions - Folsom Lake



## Folsom Lake Conditions

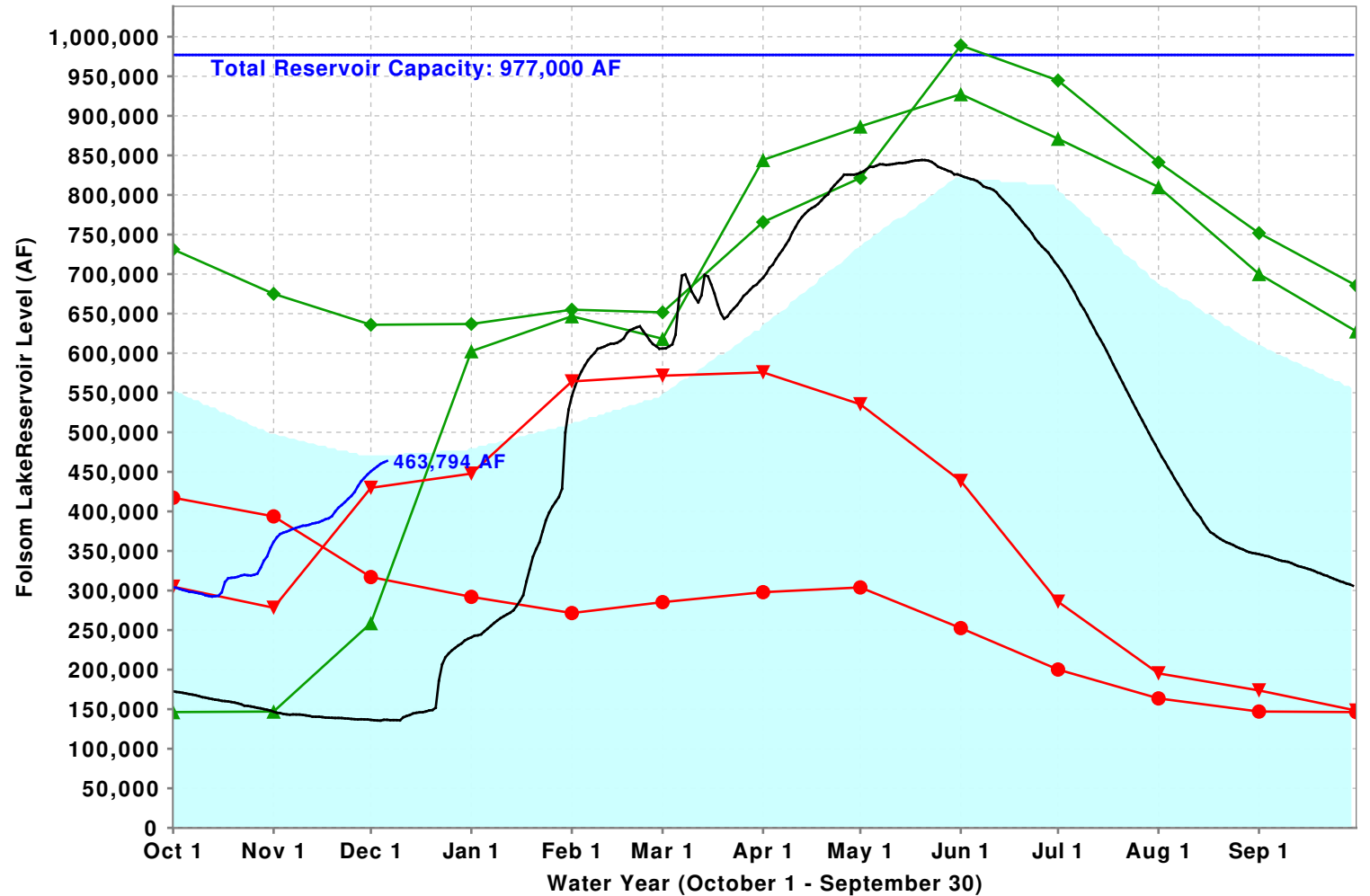
(as of Midnight - December 6, 2016)



Current Level: 463,794 AF

47% (Total Capacity) | 99% (Historical Avg.)

Folsom Lake Levels: Various Past Water Years and Current Water Year, Ending At Midnight December 6, 2016



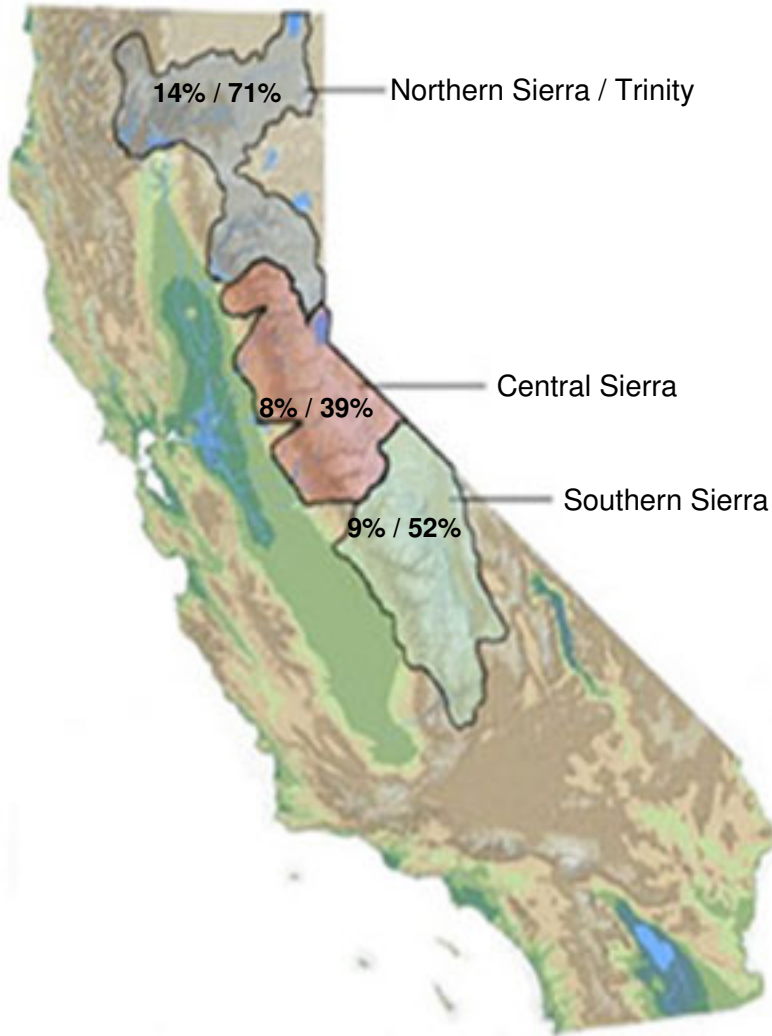
■ Historical Average 
 — Total Reservoir Capacity 
 ● 1976-1977 (Driest) 
 ▲ 1977-1978 
 ◆ 1982-1983 (Wettest) 
 — 2015-2016 
 ▼ 2014-2015 
 — Current: 2016-2017



# Statewide Summary of Snow Water Content

## Current Regional Snowpack from Automated Snow Sensors

% of April 1 Average / % of Normal for This Date



NORTH	
Data as of December 7, 2016	
Number of Stations Reporting	32
Average snow water equivalent (Inches)	4.1
Percent of April 1 Average (%)	14
Percent of normal for this date (%)	71

CENTRAL	
Data as of December 7, 2016	
Number of Stations Reporting	45
Average snow water equivalent (Inches)	2.5
Percent of April 1 Average (%)	8
Percent of normal for this date (%)	39

SOUTH	
Data as of December 7, 2016	
Number of Stations Reporting	32
Average snow water equivalent (Inches)	2.3
Percent of April 1 Average (%)	9
Percent of normal for this date (%)	52

STATE	
Data as of December 7, 2016	
Number of Stations Reporting	109
Average snow water equivalent (Inches)	2.9
Percent of April 1 Average (%)	10
Percent of normal for this date (%)	51

**Statewide Average: 10% / 51%**

Data as of December 7, 2016

# CITRUS HEIGHTS WATER DISTRICT

## MANAGEMENT SERVICES REPORT TO BOARD OF DIRECTORS NOVEMBER 8, 2016 REGULAR MEETING

SUBJECT : EMPLOYEE RECOGNITION  
 STATUS : Information Item  
 REPORT DATE : December 7, 2016  
 PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

The following District employees were recognized for superior attendance, outstanding customer service and quality of work during the month of November 2016.

### Administration & Water Demand Management Department

<u>Name</u>	<u>Attendance</u>	<u>Customer Service</u>	<u>Work Quality</u>
Brady Chambers	Yes	On November 15 <sup>th</sup> , the son/executor of the estate at 6200 Wedgefield Way came up to Brady's window. The gentleman asked for 3 years history of bill, late penalties, and misc. fee's. The gentleman was very happy with Brady's patience with helping him understand the history of the account in very great detail.	For attending the November 16 <sup>th</sup> Prop 218 Public Rate hearing.
Kelly Drake	Yes		
Dana Mellado	Yes	On 11/28/16 during Shut offs. Dana took a challenging customer, with a recent death in the family, about to be shut off, and helping he resolve her account issues with kindness and professionalism.	For attending the November 16 <sup>th</sup> Prop 218 Public Rate hearing.
Rex Meurer	No		
Beth Shockley	Yes		For doing an amazing job with the planning and set up of Bob's retirement party.
Desiree Smith	Yes		For attending the November 16 <sup>th</sup> Prop 218 Public Rate hearing.
Lisa Smoot	Yes	Lisa is being nominated for taking time with Lincoln who was going	Lisa spent time during the Board Clerk conference to help Alberto

<u>Name</u>	<u>Attendance</u>	<u>Customer Service</u>	<u>Work Quality</u>
		to stop disability on one of our employees before the doctors release date. Lisa spent a lot of time and endless emails to Lincoln and individuals wife trying to rectify the problem. In the end Lisa was able to get the individual his due benefits. Lisa was very diligent in getting this rectified for this employee.	out with payroll as there were a few issues he needed help with. Lisa did this on her own time (lunch) hour along with time during the conference. (Honorable) – For doing an amazing job with the planning and set up of Bob’s retirement party.
Susan Sohal	No		For her hard work on the Budget and Rate Hearing. (Honorable) – For preparing the amazing slide show for Bob’s retirement party.
Alberto Preciado	Yes		For attending the November 16 <sup>th</sup> Prop 218 Public Rate hearing.

### **Project Management/Engineering**

Missy Pieri	Yes		For participating in the Rate Hearing Presentation on 11/15/16.
John Spinella	Yes		On Saturday 11/5/16, John volunteered to provide inspection for 7.0 overtime hours at the 5555 Mariposa Project. This allowed the Skycrest Elementary School to be shut-down.
Borey Swing	Yes		On 11/15/16, Borey provided a map showing the locations all Prop 218 Response Letters.

### **Operations Department**

<u>Name</u>	<u>Attendance</u>	<u>Customer Service</u>	<u>Work Quality</u>
James Buford	Yes		
Robyn Evans	Yes	For all of her internal customer service towards changing the GM’s office setup.	Breakfast for the 11/3/16 Rewards and Recognition Event. (Honorable) Assistance with Bob’s Retirement Party.
Jim Ferro			For assisting with the GM’s office move-in and move-out.

<u>Name</u>	<u>Attendance</u>	<u>Customer Service</u>	<u>Work Quality</u>
Jarret Flink	Yes		
Gil Garcia		<p>1) 11/15/16: Assisted Kelly Drake with converting the “Colony Creek Apartments” from touch read to radio read meters (38 total)</p> <p>2) 11/28/16: Thank you call from Manager at Sierra Ridge Apartments (7434 Auburn Oaks Ct.) for fast and thorough service re: leak investigation</p>	For assisting with the GM’s office move-in and move-out.
Brian Hensley	Yes		
Dan Hesse	Yes		
Rick Jimenez	Yes	11/15/16: Assisted Kelly Drake with converting the “Colony Creek Apartments” from touch read to radio read meters (38 total)	For assisting with the GM’s office move-in and move-out.
Mike Mariedth		<p>1) 11/15/16: Assisted Kelly Drake with converting the “Colony Creek Apartments” from touch read to radio read meters (38 total)</p> <p>2) 11/28/16: Thank you call from Manager at Sierra Ridge Apartments (7434 Auburn Oaks Ct.) for fast and thorough service re: leak investigation</p>	11/18/16: For assisting with the set up and decorating of Bob’s retirement party.
Chris Nichols		11/9/16: Customer Judy Williams at 7008 Gardenvine Ave. called to thank Chris for his assistance for some water pressure issues	
Nick Spiers			For assisting with the GM’s office move-in and move-out.
Jason Tupper			11/18/16: For assisting with the set up and decorating of Bob’s retirement party.

# CITRUS HEIGHTS WATER DISTRICT

## CHIEF BOARD CLERKS REPORT TO BOARD OF DIRECTORS NOVEMBER 8, 2016 REGULAR MEETING

SUBJECT : LONG RANGE BOARD AGENDA  
 STATUS : Information Item  
 REPORT DATE : December 7, 2016  
 PREPARED BY : Lisa Smoot, Management Services Supervisor/Chief Board Clerk

In an effort to plan workloads and schedules, Executive staff has been maintaining a Long Range Board Agenda, and the November update is provided below. Please let Chief Board Clerk Smoot know if you have any questions or comments.

<b>CITRUS HEIGHTS WATER DISTRICT LONG RANGE AGENDA</b>				
<b>MEETING DATE</b>	<b>AGENDA</b>	<b>ITEM DESCRIPTION</b>	<b>ASSIGNED</b>	<b>AGENDA ITEM</b>
<b>UPCOMING</b>				
<b>January 10, 2017</b>				
<b>January 10, 2017</b>	<b>Quarterly</b>	Strategic Planning Update (Schedule June Meeting)	<b>Smoot/Straus</b>	Old Business I/D
<b>January 10, 2017</b>	<b>Annual</b>	CIP Presentation (re-write policy)	<b>Dietrich/Gordon/Straus/Sohal/Pieri</b>	New Business A
<b>January 10, 2017</b>		State Water Board - Conservation Regulations Update	<b>Meurer</b>	Presentation
<b>January 10, 2017</b>		Award of Contract - Operations Building	<b>Dietrich</b>	A
<b>January 10, 2017</b>		Dress Code Policy Update	<b>Smoot</b>	Consent
<b>February 14, 2017</b>				
<b>February 14, 2017</b>		IIPP Updates	<b>Drake/Gordon</b>	New Business/Action
		1. Confined Space Entry Program		
		2. Respirator Program		
<b>February 14, 2017</b>	<b>Annual</b>	Investment of District Funds	<b>Sohal/Legal Counsel</b>	A
<b>February 14, 2017</b>		Update Retention Schedule	<b>Smoot</b>	A
<b>February 14, 2017</b>		State Water Board - Conservation Regulations Update	<b>Meurer</b>	Presentation
<b>March 14, 2017</b>				
<b>March 14, 2017</b>		Study Session - District Wide Meter Replacement	<b>Meurer</b>	Presentation
<b>March 14, 2017</b>		Audit Review	<b>Sohal</b>	



<b>March 14, 2017</b>		General On Call Contracting Services	<b>Gordon</b>	A
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<b>MEETING DATE</b>	<b>AGENDA</b>	<b>ITEM DESCRIPTION</b>	<b>ASSIGNED</b>	<b>AGENDA ITEM</b>
<b>UPCOMING</b>				
<b>April 11, 2017</b>				
<b>Apr-17</b>		Award of Contract - General Counsel	<b>Straus</b>	A
<b>FUTURE SCHEDULED REPORTS</b>				
<b>Jun-17</b>	<b>Annual</b>	Strategic Planning Meeting	<b>Straus</b>	D
<b>Jun-17</b>		CIP Adoption	<b>Dietrich/Gordon/ Straus/Sohal/Pieri</b>	A
<b>Jul-17</b>	<b>Annual</b>	Finance Corporation, Confirm & Appoint Officers of the Finance Corp., Status of Finance Corp.	<b>Sohal</b>	
<b>Aug-17</b>	<b>Annual</b>	Budget Rate Model Workshop	<b>Sohal</b>	I/D
<b>Sep-17</b>	<b>Annual</b>	Refined Budget Options/Prop 218 Direction	<b>Sohal/Straus</b>	I/D
<b>Oct-17</b>	<b>Annual</b>	Request For Public Hearings - Budget	<b>Sohal</b>	A
<b>Nov-17</b>	<b>Annual</b>	Operating and Capital Budgets	<b>Straus/Dietrich/Gordon</b>	P/A
		Water Rates, Charges & Fees	<b>Straus/Sohal/Pieri</b>	
		Capacity Fees	<b>Straus/Sohal/Pieri</b>	
		Water Shortage Charges	<b>Straus/Sohal/Pieri</b>	
		Confined Space Entry Program	<b>Drake/Gordon</b>	
<b>Dec-17</b>	<b>Annual</b>	Committee Assignments	<b>Smoot</b>	A
<b>Dec-17</b>	<b>Annual</b>	District Officers	<b>Smoot</b>	A
<b>Dec-17</b>	<b>Annual</b>	Selection of President and Vice President	<b>Smoot</b>	A
<b>Sep-19</b>	<b>Every 3 Years</b>	Public Health Goals	<b>Hensley</b>	A
<b>Oct-18</b>	<b>Every 2 Years</b>	Conflict of Interest	<b>Smoot</b>	A
<b>Oct-20</b>		100 Year Celebration		
<b>Feb-18</b>	<b>Annual</b>	Investment of District Funds	<b>Sohal/Legal Counsel</b>	A
<b>Mar-18</b>	<b>Annual</b>	Audit Review	<b>Sohal</b>	



YOUR BEST PROTECTION

## ACWA JPIA

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### President

E.G. "Jerry" Gladbach

### Vice President

Tom Cuquet

### Chief Executive Officer

Walter "Andy" Sells

### Executive Committee

Tom Cuquet

David Drake

E.G. "Jerry" Gladbach

Brent Hastey

David T. Hodgkin

W.D. "Bill" Knutson

Melody A. McDonald

Charles W. Muse

J. Bruce Rupp

December 6, 2016

Robert A. Churchill  
Citrus Heights Water District  
P.O. Box 286  
Citrus Heights, CA 95611-0286

Dear Robert:

Each year at Fall Conference, the JPIA recognizes members that have a Loss Ratio of 20% or less in either of the Liability, Property, or Workers' Compensation programs (loss ratio = total losses / total premiums).

The members with this distinction receive the "**President's Special Recognition Award**" certificate for each Program that they qualify in.

The JPIA is extremely pleased to present Citrus Heights Water District with this special recognition and commends the District on the hard work in reducing claims.

Congratulations to you, your staff, Board, and District. Keep up the good work!

The JPIA wishes you the best in 2017.

Sincerely,

Walter "Andy" Sells  
Chief Executive Officer

Enclosure: President's Special Recognition Award(s)

# *President's Special Recognition Award*

*The President of the  
ACWA JPIA  
hereby gives Special Recognition to*

## *Citrus Heights Water District*

*for achieving a low ratio of "Paid Claims and Case Reserves" to "Deposit Premiums"  
in the Property Program for the period 04/01/2012 - 03/31/2015  
announced at the Board of Directors' Meeting in Anaheim.*

*E. G. Jerry Gladbach*

**E. G. "Jerry" Gladbach, President**



**November 28, 2016**

# *President's Special Recognition Award*

*The President of the  
ACWA JPIA  
hereby gives Special Recognition to*

## *Citrus Heights Water District*

*for achieving a low ratio of "Paid Claims and Case Reserves" to "Deposit Premiums"  
in the Workers' Compensation Program for the period 07/01/2012 - 06/30/2015  
announced at the Board of Directors' Meeting in Anaheim.*

*E. G. "Jerry" Gladbach*

**E. G. "Jerry" Gladbach, President**



**November 28, 2016**



**CITRUS  
HEIGHTS  
WATER  
DISTRICT**

## MEMORANDUM

**To:** Board of Directors  
**From:** Hilary Straus, General Manager  
**Date:** December 13, 2016  
**Subject:** 2016 ACWA Fall Conference Update

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General Manager Straus, Operational Manager Gordon and Accounting Supervisor Sohal will provide a summary of sessions attended at the 2016 Association of California Water Agencies (ACWA) Fall 2016 conference. Session topics included water technical, policy and legal issues (including water conservation), organizational development topics and finance/rate setting topics.