



BIGHORN-DESERT VIEW WATER AGENCY

Our Mission - "To provide a high quality supply of water and reliable service to all customers at a fair and reasonable rate."

Planning/Legislative/Engineering Grant & Security Standing Committee Meeting Agenda

Committee Members: Vice President Corl-Lorono & Secretary Burkhart

**BOARD MEETING OFFICE
1720 N. CHEROKEE TR.
LANDERS, CALIFORNIA 92284**

**January 15, 2019
Time – 9:15 A.M.**

- 1. CALL TO ORDER**
- 2. PLEDGE OF ALLEGIANCE**
- 3. ROLL CALL**
- 4. APPROVAL OF AGENDA**

Discussion and Action Items - The Board of Directors and Staff will discuss the following items, and the Board will consider taking action, if so inclined. The Public is invited to comment on any item on the agenda during discussion of that item. When giving your public comment, please have your information prepared. If you wish to be identified for the record then please state your name. Due to time constraints, each member of the public will be allotted three minutes to provide their public comment.

5. Conference Call with Mojave Water Agency's Legal/Legislative and Public Information Committee

Committee to participate via teleconference for an update by the State Advocate of Issues at the State Level, as well as an update by the Federal Advocate of Issues at the Federal Level.

6. Participation in Community Water Systems Alliance thru Partnership with California Association of Mutual Water Companies at a Cost of No More than \$10,000 Per Year with an Additional \$10,000 Per Year (est.) for Travel to Sacramento, if Necessary

7. Status of Johnson Valley Monitoring Well Constructed in 2012

Information only: Staff will review the proposals received for evaluating the Johnson Valley monitoring well for further development as a groundwater supply.

8. Consent Items – The following items are expected to be routine and non-controversial and will be acted on by the Board at one time without discussion, unless a member of the Public or member of the Board requests that the item be held for discussion or further action.

a. PLEGS Committee Meeting Minutes, **October 16, 2018**

Recommended Action:

Approve as presented (Item a):

9. Public Comment Period

Any person may address the Board on any matter within the Agency's jurisdiction on items not appearing on this agenda.

When giving your public comment, please have your information prepared. If you wish to be identified for the record then please state your name. Due to time constraints, each member of the public will be allotted three minutes to provide their public comment. State Law prohibits the Board of Directors from discussing or taking action on items not included on the agenda.

10. Verbal Reports - Including Reports on Courses/Conferences/Meetings.

1. Committee Members' Comments/Reports
2. General Manager's Report

11. Adjournment

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted in the main lobby of the Bighorn-Desert View Water Agency, 622 S. Jemez Trail, Yucca Valley, CA not less than 72 hours if prior to a Regular meeting, date and time above; or in accordance with California Government Code Section 54956 this agenda has been posted not less than 24 hours if prior to a Special meeting, date and time above.

As a general rule, agenda reports or other written documentation have been prepared or organized with respect to each item of business listed on the agenda.

Copies of these materials and other disclosable public records in connection with an open session agenda item, are also on file with and available for inspection at the Office of the Agency Secretary, 622 S. Jemez Trail, Yucca Valley, California, during regular business hours, 8:00 A.M. to 4:30 P.M., Monday through Friday. If such writings are distributed to members of the Board of Directors on the day of a Board meeting, the writings will be available at the entrance to the Board of Directors meeting room at the Bighorn-Desert View Water Agency.

Internet: Once uploaded, agenda materials can also be viewed at www.bdvwa.org

Public Comments: You may wish to submit your comments in writing to assure that you are able to express yourself adequately. Per Government Code Section 54954.2, any person with a disability who requires a modification or accommodation, including auxiliary aids or services, in order to participate in the meeting, should contact the Board's Secretary at 760-364-2315 during Agency business hours.



LEGAL, LEGISLATIVE, AND PUBLIC INFORMATION COMMITTEE MEETING

AGENDA

Mojave Water Agency
Board Room
13846 Conference Center Drive
Apple Valley CA 92307

Teleconference Line 760-946-7044

January 15, 2019
9:30 a.m.

NO ACTION WILL BE TAKEN – STUDY SESSION ONLY

1. Approve Agenda
2. Approve Meeting Summary from the Legal, Legislative, and Public Information Committee Meeting of December 18, 2018
3. Update by State Advocate of Issues at the State Level (teleconference)
4. Update by Federal Advocate of Issues at the Federal Level (teleconference)
5. Public Information Update
6. General Manager's Report
7. Public Participation
8. Comments/Discussion Items for Next or Future Agendas
9. Adjournment

Pursuant to Government Code Section 54954.2(a), any request for a disability-related modification or accommodation, including auxiliary aids or services, that is sought in order to participate in the above-agendized public meeting, should be directed to the Agency's General Manager's office at (760) 946-7002 at least 24 hours prior to said meeting.

Committee meetings are now available on conference line 760-946-7044.

NOTE: Be sure to visit our Facebook page at:

<http://www.facebook.com/mojavewater>



LEGAL, LEGISLATIVE, AND PUBLIC INFORMATION COMMITTEE MEETING

APPROVED MEETING SUMMARY December 18, 2018

CALL TO ORDER:

Chairperson Richard Hall called the meeting to order at 9:30 a.m.

ATTENDANCE:

- + Committee – Chairperson Richard Hall, Director Thurston “Smitty” Smith, and Director Jeanette Hayhurst
- + Staff – General Manager Tom McCarthy, Director of Community Outreach and Cultural Relations Yvonne Hester, Executive Assistant Michelle Doyle and Administrative Assistant Arlynn Caasi
- + Consultants – State Advocates Carolyn Jensen and Ed Manning, KP Public Affairs; and Federal Advocates Drew Tatum, Jean Denton and Shavenor Winters, Innovative Federal Strategies LLC joined by teleconference
- + Others – Four guests were in the audience and one online

1. **Approve Agenda**

The Committee agreed upon the agenda as presented.

2. **Approve Meeting Summary from the Legal, Legislative, and Public Information Committee Meeting of November 20, 2018**

The Committee agreed upon the meeting summary as presented.

3. **Update by State Advocate of Issues at the State Level**

Ed Manning and Carolyn Jensen provided an update on legislative bills AB134, AB11, SB15, SB1, and SB45. Mr. Manning also spoke about the Regulatory update on the Bay Delta Water Quality Control Plan, California Water Plan 2018, and the Delta Stewardship Council.

4. **Update by Federal Advocate of Issues at the Federal Level**

Drew Tatum and Jean Denton provided an update on the Appropriations bills, election outcomes and the potential government shut down and its impact. They concluded with addressing questions from the Committee.

5. **Public Information Update**

Ms. Hester provided a PowerPoint presentation that included an update on the Innovators Water Summit, a review of Director Lowry’s Celebration of Service, and information on upcoming events that included the Essay Finals, ABC’s of Water, and the Water Summit.

6. **General Manager’s Report**

Mr. McCarthy thanked staff for their all their work with Director Lowry’s retirement celebrations. He also acknowledged Ed Manning’s discussion on the two phases of the

Water Quality Control Plan with Phase I moving forward and hopes that Phase II will be more developed with staff and DWR as it has more of an impact with contractors.

7. **Public Participation**

None.

8. **Comments/Discussion Items for Next or Future Agendas**

None.

9. **Adjournment**

Chairperson Hall adjourned the meeting at 10:11 a.m.

Submitted by: _____
Arlynn Caasi
Administrative Assistant

Attachments on-file:

Item No. 5 - Public Information Report – PowerPoint
Sign-in sheet



TO: Legal, Legislative and Public Information Committee
FROM: Ed Manning and Carolyn Jensen
RE: KP Public Affairs Agenda

1. Legislative Calendar

- January 7th: Governor Newsom sworn in and Legislature reconvenes
- February 22nd: Last day for bill introductions

2. State Budget Released

- Summary of Governor Newsom's first state budget

3. Regulatory Update

- CA Water Plan 2018 released
- SWRCB AB 401 LIRA Implementation proposal released

1/9/2019

MEMORANDUM

To: Legal, Legislative, and Public Information Committee

From: Letitia White, Jean Denton, Drew Tatum, Shavenor Winters

Date: December 31, 2018

Re: December Monthly Legislative Update

Government Shutdown Continues

As lawmakers were unable to reach an agreement on federal spending for the seven remaining appropriations bills prior to the expiration of the continuing resolution (CR), portions of the federal government started shutdown procedures on Friday, December 21.

While the Senate passed a “clean” CR on Wednesday, December 19 that would have funded agencies not covered by a full-year appropriations measure, the House took up and amended the measure to add \$5.7 billion in funding for President Donald Trump’s proposed border wall and over \$7 billion in supplemental funding for wildfire and hurricane disaster relief. After sending the legislation back to the Senate, the Senate was barely able to muster the simple majority necessary to proceed to the bill. Absent an agreement that would garner 60 votes, Senators agreed that no further votes would be taken until the House, Senate, and White House agreed to legislation that would fund the government.

President Trump hosted a meeting Saturday morning, December 22, on the status of government funding, but no Democrats participated. Late that afternoon, Vice President Mike Pence met with Senate Minority Leader Chuck Schumer (D-NY) at the request of the White House, but no consensus on a deal was reached. In a speech on the floor, Senator Schumer said that President Trump must abandon the wall in order to reopen the government.

It is our understanding that the Vice President put the full-year FY19 funding bills in the form of an omnibus on the table for negotiation during his conversation with Leader Schumer. Without reaching an agreement, both the House and Senate adjourned on Saturday, December 22 until after Christmas.

While the House and Senate held pro-forma sessions on Christmas Eve, leaders in the House on Wednesday, December 26 told lawmakers not to expect a vote on any budget deal before the Senate takes action. Congressional leaders left town over Christmas and President Trump made a surprise visit to troops stationed in Iraq, temporarily pausing negotiations until the House and Senate returned on Thursday, December 27.

However, after convening for a few moments, on Thursday, December 27 the Senate and House adjourned until Monday, December 31 as there appears to be no progress in resolving the partial government shutdown.

The Senate session on Monday will be pro forma, and it will then reconvene Wednesday, January 2 at 4pm. The new Congress is expected to convene on Thursday, January 3 at noon, meaning absent any meaningful progress in the negotiations on government spending, the partial shutdown will likely have to be resolved by the new Congress. That means one-quarter of the federal government, including the EPA and Interior Department, will remain unfunded as the dispute over President Trump's border wall persists.

The EPA had enough leftover money to stay open for the first week of the partial shutdown, Acting Administrator Andrew Wheeler told employees in an email. As the shutdown appears poised to move into its second week, Wheeler said the agency will begin shutdown procedures. Other cabinet agencies have offered further guidance to their employees, as some agencies can use non-appropriated funds to stay open for at least a short period of time. Additionally, employees deemed essential, which accounts for more than 50% of employees at impacted agencies, will continue to work even without an appropriations measure funding their agency.

The chart below shows which agencies are impacted by the government shutdown based on the appropriations bill that provides its funding.

As a reminder, all federal employees deemed essential from these agencies will continue to work for the duration of the shutdown and are unable to take leave. This includes employees who serve in national security positions including the Transportation Security Administration (TSA). In the past, Congress has provided back pay for furloughed employees in the funding mechanism used to reopen impacted by the shutdown.

Spending Bill	Covered Agencies	
Agriculture-FDA	<ul style="list-style-type: none"> • FDA • Agriculture Department <ul style="list-style-type: none"> • Agricultural Marketing Service • Agricultural Research Service 	<ul style="list-style-type: none"> • Animal and Plant Health Inspection Service • Farm Service Agency • Food Safety and Inspection Service • Commodity Futures Trading Commission
Commerce-Justice-Science	<ul style="list-style-type: none"> • Commerce Department <ul style="list-style-type: none"> • Census Bureau • National Oceanic and Atmospheric Administration • Patent and Trademark Office 	<ul style="list-style-type: none"> • Justice Department <ul style="list-style-type: none"> • FBI • Drug Enforcement Administration • Bureau of Alcohol, Tobacco, Firearms & Explosives • NASA
Financial Services-General Government	<ul style="list-style-type: none"> • Treasury Department <ul style="list-style-type: none"> • Internal Revenue Service • Executive Office of the President • Federal judiciary • Federal Communications Commission 	<ul style="list-style-type: none"> • General Services Administration • Federal Trade Commission • Office of Personnel Management • Small Business Administration • Securities and Exchange Commission • U.S. Postal Service
Homeland Security	<ul style="list-style-type: none"> • Homeland Security Department <ul style="list-style-type: none"> • Customs and Border Protection • Coast Guard 	<ul style="list-style-type: none"> • Federal Emergency Management Agency • Transportation Security Administration • U.S. Immigration and Customs Enforcement
Interior-Environment	<ul style="list-style-type: none"> • Environmental Protection Agency • Interior Department <ul style="list-style-type: none"> • Bureau of Indian Affairs • Bureau of Land Management • National Park Service 	<ul style="list-style-type: none"> • U.S. Fish and Wildlife Service • U.S. Geological Survey • U.S. Forest Service • Indian Health Service • Smithsonian Institution
State-Foreign Operations	<ul style="list-style-type: none"> • State Department • Democracy Fund • Millennium Challenge Corporation 	<ul style="list-style-type: none"> • Peace Corps • U.S. Agency for Global Media • U.S. Agency for International Development
Transportation-HUD	<ul style="list-style-type: none"> • Transportation Department <ul style="list-style-type: none"> • Federal Aviation Administration • Federal Highway Administration • Federal Railroad Administration 	<ul style="list-style-type: none"> • Federal Transit Administration • Maritime Administration • Housing and Urban Development Department

Public Lands Bill on Hold Until Next Year

The Senate is poised to punt a public lands fight to January after Senator Mike Lee (R-UT) objected to the bill because of a fight over national monuments and the Antiquities Act.

Senator Lisa Murkowski (R-AK) and a bipartisan group of senators tried to get consent to move the package, which temporarily delayed passage of the short-term spending bill, but Senator Lee objected.

Senator Lee said he wanted two words "for Utah" to be included in the Antiquities Act, which would prevent a president from creating or expanding national monuments without state approval in Utah.

"This bill creates 1.3 million acres of wilderness, about half of which is in my state," Lee argued, referring to the lands package. "Coming from a state where two-thirds of the land is owned by

the federal government, where we cannot do anything without leave from the federal government, this hurts.”

Senator Lee added that he received the text of the lands package, which would also reauthorize the Land and Water Conservation Fund, at 10 a.m. on Wednesday, December 19 saying that he had tried to obtain an outline of the bill from the Committee, but could only get a summary from off the Hill.

"I've made what I consider a very reasonable offer, and I ask that it be accepted. It involves two words. I want the inclusion of two words to this bill, two words. Add the words 'for Utah' to the Antiquities Act," he said.

Senate Republican Whip John Cornyn (R-TX) said that in addition to Senator Lee, Senator Rand Paul (R-KY) has placed a hold on the land legislation which will prevent senators from passing the legislation by unanimous consent.

Senator Cory Gardner (R-CO) said they offered to give Senator Lee a vote on his amendment on Wednesday, but he rejected them. “I am pretty darn upset. ... We offered deal after deal after deal to try to get a deal arranged and made so that we could have a vote tonight,” Gardner said.

Sens. Murkowski and Cornyn said Senate Majority Leader Mitch McConnell (R-KY) and Senate Minority Leader Charles Schumer (D-NY) have agreed to give it a vote shortly after the upper chamber returns in January.

Senator Murkowski and Senator Maria Cantwell (D-WA) added that they were confident the Senate would pass the lands package next year, including reauthorization of the Land and Water Conservation Fund, noting that they believed a majority of the chamber supported.

“Green Infrastructure” Legislation Heads to President’s Desk

Cities and states would get more credit for the Environmental Protection Agency for installing natural stormwater runoff systems under legislation that has been passed by both the House and Senate.

The legislation, H.R. 7279, would require the EPA to give municipalities and states more credit for installing natural runoff collection methods when weighing whether to grant them stormwater permits.

Many cities, especially older cities in the Midwest and Northeast, have combined sewer systems that send stormwater runoff and sewage through the same system of pipes. As a result, heavy storms can cause raw sewage to overflow into lakes and rivers.

Some cities use natural run-off in stormwater projects to trap water and avoid polluting overflow by planting trees, restoring wetlands, building green roofs, or installing porous materials instead of pavement.

Incoming Committee Chairman 'hopeful' for Infrastructure Bill Next Year

The incoming chairman of the House Transportation and Infrastructure Committee said last week he's hopeful that the House will pass an infrastructure package early next year.

Representative Peter DeFazio (D-OR) said that a plan to overhaul the nation's infrastructure is at the top of the list for House Democrats, who will be in the majority starting in January.

"I'm hopeful that we can get a package together in the first months of this Congress," Representative DeFazio said, referring to the 116th Congress. "Hopefully get it done in the first six months because then you're really getting into...the presidential election. So if we can move a good package out of the House, expeditiously, I think the Senate is going to be hard-pressed not to follow on."

DeFazio said that while President Donald Trump has long pushed for an infrastructure measure, any real progress has been hindered by members of his own administration — namely former policy adviser D.J. Gribbin, who departed the administration in April.

"Unfortunately, his choice of staff stymied what I think he really wants to do," Representative DeFazio said.

He said an infrastructure overhaul that he's envisioning would improve transit options and help the U.S. control carbon emissions, citing the growing concerns around climate change.

"We need to make the transportation system greener, resilient and we have to fix what we have and built out the new options," he said. Progressive members of the incoming House Democratic Conference have called for the passage of a "Green New Deal," pushing their fellow Democrats to tie climate proposals to any new infrastructure bill.

President Trump's original infrastructure proposal, which was never acted on by Congress, called for policy changes and public-private partnerships that would have generated investments in infrastructure, but provided limited direct spending.

While Democrats and Republicans have cited infrastructure as an area of possible bipartisanship in the 116th Congress, the total funding and potential offsets have stymied efforts to craft a bipartisan bill in the past.

Higher Gas Tax Needed to Restore U.S. Highways

As much as \$70 billion annually will be needed over the next two decades to upgrade U.S. interstate highways, far above the \$25 billion now being spent, according to a report that proposes raising federal fuel taxes and allowing more tolling to help make up the difference.

The report, commissioned by Congress and released on Thursday, December 6 comes as President Trump and Democrats, taking control of the House of Representatives in January, vow to pursue major public-works legislation in 2019 -- but with no consensus on how to pay for it.

The report, issued by the National Academies of Sciences, Engineering, and Medicine concluded Congress should create a program modeled after the original interstate construction effort and increase U.S. fuel taxes -- currently at 18.4 cents a gallon for gasoline and 24.4 cents for diesel -- while allowing them to increase with inflation.

The authors didn't recommend an amount but said the gas tax would have to rise to almost 30 cents a gallon within 10 years, and the diesel levy to about 40 cents, to generate \$20 billion annually.

Other recommendations include lifting the current restriction on adding tolls to existing general-purpose interstates and preparing for new funding and financing mechanisms such as charging motorists per mile traveled (vehicle miles traveled) as well as accounting for the rise of automated vehicles and climate change.

As Democrats prepare to take the leadership reins in the House for the 116th Congress, a top House Democrat is proposing that the federal government sell 40-year bonds to capitalize a U.S. infrastructure bank. Representative John Yarmuth (D-KY), who is set to lead the House Budget Committee, said he plans to introduce legislation in January that would authorize the bond sales and create the infrastructure bank. He expects it could get rolled into a broader public works package that Democrats want to pass after taking control of the House in January.

Details are still being finalized, but the idea is to sell as much as \$300 billion of "Rebuild America Bonds" over time exclusively to public and private pension funds, with the revenue used to finance a national bank that would extend loans. It would be a big step toward financing work on roads, bridges and other aging infrastructure, amounting to nearly twice what states and local governments raise for new projects in the municipal bond market each year.

Meanwhile, Senate Minority Leader Chuck Schumer (D-NY) said any infrastructure bill will need to have policies and funding that help transition the U.S. to a clean-energy economy and mitigate risks from climate change in order for it to have the backing of Democrats in the chamber. "Real action on climate change has been stymied by the denialism of the president and too many Republicans in Congress," Schumer wrote in an op-ed in the Washington Post.

Schumer listed several policies Democrats want in an infrastructure bill, including: federal investments in battery storage research, permanent tax credits for electric vehicles and energy-efficient homes, and **increasing climate resilience of the electrical grid and water and wastewater systems.**

EPA Water Infrastructure

According to the EPA's Office of Inspector General (OIG), the agency's Water Infrastructure Finance and Innovation Act Program needs additional internal controls. The OIG conducted an audit of the program to determine whether the EPA has established effective internal controls for the WIFIA program.

A federal credit program administered by the EPA, the WIFIA program accelerates investment in water and wastewater infrastructure of national and regional significance by offering creditworthy borrowers secured (direct) loans and loan guarantees for up to 49 percent of eligible project costs.

The EPA did not prepare a comprehensive program risk assessment prior to establishing the WIFIA program. Further, the EPA did not develop program performance measures to fully identify and capture financial data and public health benefits to affected communities. Lastly, the report found that the EPA needs to strengthen its SharePoint access controls for the WIFIA program.

Using the basic information provided by the prospective borrowers, the EPA evaluates and selects which projects may be eligible for funding based on the weighted criteria established in the Notice of Funding Availability. Following project selection, the EPA invites the appropriate prospective borrowers to complete applications for loans. The EPA uses the application materials to underwrite the proposed WIFIA loans and to develop individual credit agreements with the prospective borrowers.

The report comes after the U.S. Environmental Protection Agency (EPA) announced in August 2018 that the Water Infrastructure Finance and Innovation Act (WIFIA) program has received a record 62 letters of interest requesting \$9.1 billion in credit assistance.

The report recommended that the Assistant Administrator for Water finalize a formal and comprehensive risk assessment for the Water Infrastructure Finance and Innovation Act program in accordance with the Office of Management and Budget.

EPA Unveils Replacement "Waters" Rule

The Trump administration has unveiled how it wants to replace a landmark Obama-era regulation that redefined which bodies of water are covered by federal pollution laws.

Wetlands that aren't directly connected to a larger river or stream would no longer be subject to federal protections, nor would ephemeral streams that flow only after a big rainstorm, according to the administration's proposal released December 11. Additionally, irrigation ditches would

also not be covered, a major point of contention during the Obama administration's 2015 attempt to clear up confusion about federal water jurisdiction.

The administration rolled out its proposal at EPA headquarters in Washington. The agency's acting administrator, Andrew Wheeler, said the new rule is based on the principle that landowners should "be able to tell for themselves whether they have a federal waterway or not without hiring outside consultants." Wheeler noted that there's no way of telling how many waterways would lose federal protection under this proposal compared to the Obama administration's version—he said the data just doesn't exist.

According to data developed by the Obama administration, this new Trump waters rule would cut 60 percent of the country's waterways from federal oversight, but Wheeler said his Democratic predecessors calculated those numbers incorrectly.

The effort is the first time since taking office that the Trump administration has moved beyond repealing the existing regulation, known as Waters of the U.S. or WOTUS, to replacing it with something new.

The original WOTUS rule was an attempt by the Obama administration to clarify whether federal anti-pollution laws applied to small or ephemeral bodies of water. It immediately drew condemnation from industry groups, especially agriculture, which worried the rule would extend federal authority over previously unregulated creeks and streams.

Under President Barack Obama, the EPA and the Army Corps of Engineers adopted the WOTUS rule in 2015. The Trump administration attempted to delay its compliance deadlines by several years while it worked on this new version. The delay effort was partially struck down in court, leading to widespread confusion about which bodies of water are subject to federal regulation.

A parallel effort by the Environmental Protection Agency and the Corps to formally rescind the Obama WOTUS rule is still in its draft version and hasn't been made final.

Farm Bill Agreement Reached, Legislation Signed

Negotiators reconciled differences in the House and Senate passed Farm Bills (H.R. 2). The most controversial element of the farm bill had been the different House and Senate approaches to food stamps, or the Supplemental Nutrition Assistance Program (SNAP).

The House Republicans' farm bill would have imposed more stringent work requirements for food stamps on older workers, those aged 49 to 59, as well as parents with children ages 6 to 12.

The final version of the farm bill made none of those changes. The bill was signed into law Thursday, December 20.

States Work Toward Colorado Deal

Western states are facing a late-January deadline to finalize a historic deal aimed at staving off a water crisis for the millions of people who depend on the Colorado River. If successful, Arizona, California and Nevada's collaboration would represent one of the most significant steps ever taken in the country to adapt to climate change — even as political leaders in the region avoid using the “C” term.

The latest federal forecasts paint a dire picture for the river. Declining water levels as Lake Mead, the reservoir supplying Arizona, Nevada and Southern California, are threatening to trigger mandatory distribution cuts. The states agreed to the principles of a plan to stave off that scenario more than three years ago, but have yet to finalize it. The Trump administration is now trying to push things along, and Bureau of Reclamation Commissioner Brenda Burman gave water managers till the end of January to finish up — or the Interior Department will intervene.

There's been surprisingly little debate over the idea that the West is facing a future with less water, even from staunchly Republican leaders in the region. Ted Kowalski, who previously served as Colorado's lead negotiator, said community leaders have tried to avoid the political divisiveness associated with climate change, but that there's no denying the region's conditions have been altered.

Flood Insurance Extension Signed by the President

With the continuing resolution, which carried a temporary extension of the flood insurance program through February 8, stalling on Capitol Hill, the House and Senate quickly passed a stand-alone bill that reauthorizes the program through May 31, 2019.

President Donald Trump signed the legislation on Friday, December 21.

Amid the partial government shutdown, lawmakers have said they do not believe the issuance of new insurance policies will be delayed.

Lawmakers have been divided over how to advance a long-term reauthorization bill in recent years, instead opting to pass short term extensions of the program.

Administration Shake Ups

President Trump announced on Saturday, December 8 that White House chief of staff John Kelly will leave his job by the end of the year, the latest and highest-profile move in a shake-up of Trump's team following Republican losses in November's midterm elections. Mick Mulvaney will serve as the Acting White House Chief of Staff at the end of the year, President Donald Trump announced in a tweet earlier this month.

Mr. Mulvaney will not resign as director of the Office of Management and Budget (OMB) while he is acting White House chief of staff. OMB Deputy Director Russ Vought will handle day-to-day operations for the office.

Interior Secretary Ryan Zinke is also set to depart the administration at the end of the year amid growing controversy over allegations that he violated ethics rules.

Secretary Zinke's personal conduct and management decisions have spurred at least 15 investigations, several of which have been closed.

The most serious one, which the Interior Department's acting inspector general referred to the Justice Department, focuses on whether the secretary used his office for personal gain in connection with a land deal he forged in Whitefish, Montana.

With Zinke's departure the Department, David Bernhardt, the deputy Interior secretary, could be named acting secretary until President Trump names and the Senate confirms a permanent nominee.

Mr. Bernhardt has been the point person on numerous major Interior initiatives, such as proposed changes to the Endangered Species Act and efforts to allow drilling in the Arctic National Wildlife Refuge. He is widely expected to continue similar policies as Zinke, though perhaps with a different tone.

Secretary Zinke's departure as head of the agency that oversees federal land, wildlife and American Indian relations comes as Democrats prepare to take over as the majority in the House, where they'll have subpoena power for investigations. Zinke has recently publicly feuded with Representative Raul Grijalva (D-AZ), who is expected to take over as Chairman of the House Natural Resources Committee in the 116th Congress. Grijalva has said he may still subpoena Zinke to appear before his committee to testify about the Department's involvement in shrinking national monuments during his tenure.

One possible replacement is the outgoing Chairman of the House Natural Resources Committee, Representative Rob Bishop (R-UT). Bishop is expected to be the ranking member in the 116th Congress, but according to the committee's spokeswoman, Bishop would be open to serving in the Trump Administration.

In additional changes to the Administration, Federal Energy Regulatory Commission nominee Bernard McNamee was sworn in as a Republican commissioner on Tuesday, December 11 at the agency's headquarters.

McNamee is the latest commissioner to join independent energy regulator, bringing it back to a full panel of five members. He was confirmed in a 50-49 Senate floor vote last week.

The highest profile departure announced during December is the upcoming resignation of Defense Secretary James Mattis. Mattis submitted his letter of resignation, effective at the end of February, after President Trump announced that he had ordered the withdrawal of troops from

Syria. Mattis noted that he had significant policy differences with President Trump in his resignation letter.

After the letter of resignation was released, President Trump announced that he was appointing Deputy Secretary of Defense Patrick Shanahan as Acting Secretary of Defense effective January 1, two months before Mattis had planned to step down. Members of Congress from both sides of the aisle expressed concern that Mattis was leaving the Defense Department, noting the bipartisan support he has on Capitol Hill.

Courts to Continue Normal Schedule in Shutdown

The Administrative Office of the United States Courts announced that the federal judiciary would continue normal operations through the partial government shutdown, relying on non-appropriated funds to remain open. Most proceedings and deadlines will occur as scheduled. In cases where an attorney from an Executive Branch agency is not working because of the shutdown, hearing and filing dates may be rescheduled.

As previously scheduled and due to upcoming holidays, the Court will be closed December 24, 25, and 31 and January 1.

Despite a partial shutdown of the federal government that began on December 22, 2018, the Judiciary remains open and can continue operations for approximately three weeks, through January 11, 2019, by using court fee balances and other funds not dependent on a new appropriation.

If the shutdown were to continue past three weeks and exhaust the federal Judiciary's resources, the courts would then operate under the terms of the Anti-Deficiency Act, which allows work to continue during a lapse in appropriations if it is necessary to support the exercise of Article III judicial powers. Under this scenario, each court and federal defender's office would determine the staffing resources necessary to support such work.

Court Allows Census Lawsuit to Continue

U.S. District Court for California's Northern District denied Trump administration's attempt to block lawsuit challenging the citizenship question in the 2020 census, California Attorney General Xavier Becerra said in a statement released in early December for the Northern District of California in *State of California, et al. v. Ross, et al.* to deny the Trump Administration's attempt to block a lawsuit challenging the citizenship question on the 2020 Census.

Criminal Justice Reform Bill Signed

After approval from Congress, President Donald Trump signed a bipartisan criminal justice reform bill into law. The bill, known as the First Step Act, would take modest steps to reform the

criminal justice system and ease prison sentences at the federal level. It would affect only the federal system — which, with about 181,000 imprisoned people, holds a small but significant fraction of the US jail and prison population of 2.1 million.

The original legislation that passed the House of Representatives in the spring made no effort to cut the length of prison sentences on the front end, although it did take some steps to encourage rehabilitation in prison that inmates could use, in effect, to reduce how long they're in prison. The Senate sponsors took issue with the bill's limited scope, and managed to add changes that will ease some prison sentences.

The bill makes retroactive the reforms enacted by the Fair Sentencing Act of 2010, which reduced the disparity between crack and powder cocaine sentences at the federal level. This could affect nearly 2,600 federal inmates, according to the Marshall Project.

The bill takes several steps to ease mandatory minimum sentences under federal law. It would expand the “safety valve” that judges can use to avoid handing down mandatory minimum sentences. It would ease a “three strikes” rule so people with three or more convictions, including for drug offenses, automatically get 25 years instead of life, among other changes. It would restrict the current practice of stacking gun charges against drug offenders to add possibly decades to prison sentences.

The bill increases “good time credits” that inmates can earn. Inmates who avoid a disciplinary record can currently get credits of up to 47 days per year incarcerated. The bill increases the cap to 54, allowing well-behaved inmates to cut their prison sentence by an additional week for each year they're incarcerated. The change applies retroactively, which could allow some prisoners — as many as 4,000 — to qualify for release soon after enactment.

The bill allows inmates to get “earned time credits” by participating in more vocational and rehabilitative programs. Those credits would allow them to be released early to halfway houses or home confinement.

Federal Legislation of Significance

Note that any legislation not passed before the 116th Congress convenes on Thursday, January 3, 2019 will have to be reintroduced to be considered in either chamber. No federal legislation carries from one Congress to another.

Bill Number	Sponsor	Title and/or Summary	Summary/Status
H.R. 8/ S.2800 (subsequently replaced by S.3021)	Rep. Bill Shuster(R-PA)/ Sen. John Barrasso (R-WY)	Water Resources Development Act/ America's Water Infrastructure Act of 2018 (America's Water Infrastructure Act of 2018)	The bill authorizes proposed U.S. Army Corps of Engineers civil works activities and provides reforms to the Corps. WARDA authorizes locally driven, but nationally vital, investments in the Nation's water resources infrastructure. It strengthens economic growth and competitiveness, helps move goods throughout the country and abroad, and protects our communities. The legislation passed the House on June 6, 2018 by a vote of 408 to 2. It was received in the Senate and placed on the Senate Legislative Calendar under General Orders. The Senate version of the bill, America's Water Infrastructure Act of 2018 was introduced in May 8, 2018. The legislation was marked and reported favorably out of committee on Tuesday, May 22, 2018. Senator Barrasso filed a written report to accompany the bill on July 10, 2018.
H.R.5895	Rep. Mike Simpson (R-ID)	Fiscal 2019 Energy and Water Development, Legislative Branch, and MilCon- VA Appropriations "Mimibus"	Since the Senate was unable to pass its own legislation, the House and Senate pre-conferenced legislation in a bipartisan manner, which was passed the House as a substitute amendment to S. 3021. It passed the Senate on October 10, 2018, and was signed by President Trump on October 23, 2018 (Public Law 115-270)
			Provides FY2019 appropriations for U.S. Army Corps of Engineers civil works projects, the Department of the Interior's Bureau of Reclamation, the Department of Energy (DOE), and independent agencies such as the Nuclear Regulatory Commission. The legislative branch section, would provide additional funds for the Office of Compliance for training and higher caseloads. The office handles workplace protection complaints for the legislative branch. It also would block the automatic cost-of-living increase for members of Congress. The legislation would also appropriate funding for military construction and the Department of Veteran's Affairs.

H.R. 6147	Rep. Ken Calvert (R-CA)	Fiscal 2019 Interior-Environment, Financial Services Appropriations "Minibus"	<p>The legislation was passed in both the House and the Senate and was conferenced to reconcile discrepancies. It became Public Law (PL-115-244) on September 21, 2018.</p> <p>The legislation includes funding for the Department of the Interior, the Environmental Protection Agency (EPA), the Forest Service, the Indian Health Service, and various independent and related agencies. These funds are targeted to important investments in the nation's natural resources, including \$3.4 billion for the Department of the Interior and U.S. Forest Service to prevent and combat devastating wildfires.</p> <p>The legislation also contains several policy provisions Republicans say will "rein in unnecessary regulations at the EPA and other agencies." The Financial Services bill would provide funding for the United States Department of the Treasury, as we all as the United States federal courts, the Executive Office of the President of the United States,</p> <p>The legislation was passed in both the House and Senate and both chambers are conferencing together in order to reconcile discrepancies between each chamber's version. Since the final conference report has not been finalized, the agencies funded by the legislation was funded by a continuing resolution that expired on December 21, 2018.</p> <p>Agencies funded by this bill are currently experiencing a partial government shutdown. "Essential" employees continue to work during the shutdown, but will not receive pay until government funding is passed.</p> <p>The legislation would establish a trust fund to provide for adequate funding for water and sewer infrastructure, and for other purposes.</p> <p>The bill was referred to the Subcommittee on Commodity Exchanges, Energy, and Credit on Tuesday, May 22, 2018 and no further action has been taken.</p> <p>The legislation was referred to the House Committee on Ways and Means on Tuesday, February 13, 2018 and no further action has been taken.</p> <p>The legislation would amend the Water Infrastructure Finance and Innovation Act of 2014 to provide to State infrastructure financing authorities additional opportunities to receive loans under that Act to support drinking water and clean</p>
H.R. 5609	Rep. Keith Ellison (D-MN)	Water Affordability, Transparency, Equity, and Reliability Act of 2018	
H.R. 5003	Rep. Randy Hultgren (R-IL)	To amend the Internal Revenue Code of 1986 to reinstate advance refunding bonds	
H.R.4902/ S. 2364	Rep. John Katko (R-NY)/ Sen. John Boozman (R-WY)	Securing Required Funding for Water Infrastructure Now Act	

			<p>water State revolving funds to deliver water infrastructure to communities across the United States.</p> <p>The bill was referred to the Subcommittee on Water Resources and Environment on January 31, 2018, and the Subcommittee on Environment on February 2, 2018. No further action has been taken.</p> <p>The Senate version of the bill, which would amend WIFIA in the same manner, was introduced on Tuesday, January 30, 2018 and was referred to the Committee on Environment and Public Works.</p> <p>This measure is designed to spur investments in water project development across the nation by supplementing federal funding of water infrastructure projects — including wastewater treatment, flood control and storm water management — with long-term, low-cost loans and loan guarantees, reauthorize and amend the Water Infrastructure Finance and Innovation Act of 2014, and double the Environmental Protection Agency’s fiscal year 19 WIFIA authorization to \$90 million and extend the program for five years, through 2024.</p> <p>The legislation was introduced Tuesday, January 23, 2018 was referred to the Committee on Environment and Public Works.</p>
S.2329	Sen. John Hoeven (R-ND)	Water Infrastructure Finance and Innovation Reauthorization Act of 2018	<p>H.R. 4492 is a companion bill to S.2329 and would spur investments in water project development across the nation by supplementing federal funding of water infrastructure projects.</p> <p>This bill was introduced Thursday, November 30, 2017, and was referred to the Subcommittee on Water Resources and Environment, and the Subcommittee on the Environment.</p> <p>The legislation would assist water agencies with the expansion, planning, designing, and building of water recycling plants and modernizing water infrastructure by making changes to the WIIN Act Title XVI water recycling and reuse program by removing the requirement of funding projects that are in drought or disaster areas, increasing the authorization from \$50 million to \$500 million, making the program permanent rather than sun-setting in 2021, and taking away the requirement that the projects need to be designated in an appropriations legislation.</p> <p>The bill was introduced on Tuesday, February 27, 2018, and was referred to the Subcommittee on Water Resources and Environment, and the Subcommittee on Water, Power, and Oceans.</p>
H.R.4492	Rep. Brian Mast (R-FL)	Water Infrastructure Finance and Innovation Reauthorization Act of 2017	
H.R. 5127	Rep. Grace Napolitano (D-CA)	Water Recycling Investment and Improvement Act	

H.R. 3711	Reps. Lamar Smith (R-TX)/Ken Calvert (R-CA) /Bob Goodlatte (R-VA)	Legal Workforce Act	<p>A bill that would require all U.S. employers to use the E-Verify electronic employment verification system. The requirement would be phased over a two-year period, starting with the largest employers. The agriculture industry would have an additional six months (or 30 months total) to come into compliance.</p> <p>H.R. 3711 was referred to the Committee on the Judiciary, and in addition to the Committees on Ways and Means, and Education and the Workforce on Friday, September 8th. On Wednesday, September 27th, H.R.3711 was referred to Judiciary Subcommittee on Immigration and Border Security. Judiciary Committee Consideration and Mark-up Session was held on Wednesday, October 25th. H.R. 3711 was ordered and reported (amended) by the yeas and nays: 20-10 on October 25, 2017.</p>
H.R. 23	Rep. David Valadao (R-CA)	Gaining Responsibility on Water Act of 2017	<p>Among other things the legislation would require regulators to comply with the Bay-Delta Accord and make changes to the state's Central Valley and State Water projects and streamline permitting processes. The bill included provisions from multiple other bills previously passed by the House that sought to increase the flow of water to areas of California that have experienced drought over the past five years. The measure was referred to the House Committee on Natural Resources and the Committee on Agriculture.</p> <p>By a vote of 230-190, the House passed H.R. 23, as amended, on July 12, 2017. H.R. 23 was received in Senate, read twice and referred to the Committee on Energy and Natural Resources on July 18, 2017.</p>
H.R. 4/ S.1405 (replaced by H.R.302)	Rep. Bill Shuster (R-PA)/ Sen. John Thune (R-SD)	FAA Reauthorization Act of 2018/ Federal Aviation Administration Reauthorization Act of 2017	<p>Among other issues this legislation would reauthorize the Federal Aviation Administration for five years. Among other things the FAA reauthorization funds aviation programs, Airport Planning and Development and Noise Compatibility Planning and Programs and authorizes FAA's Airport Improvement Program (AIP) account at \$3.350 billion annually for each of fiscal years 2018-2023.</p> <p>By a vote of 393 - 13, the House passed H.R.4. The Senate has received the bill and placed it on the Senate Legislative Calendar under General Orders but will likely vote to maintain the legislation through a short-term extension through October 7.</p> <p>The Senate version of the bill was favorably reported out of the Committee on Commerce, Science, and Transportation on May 5, 2018 and was then placed on the Senate Legislative Calendar.</p> <p>Since the Senate was unable to pass its own legislation, the House and Senate pre-conferred legislation in a bipartisan manner, which was passed the House as a</p>

H.R. 1663	Rep. Grace Napolitano (D-CA) / Rep. Rob Wittman (R-VA)	Water Resources Research Amendments Act	<p>message / substitute amendment to H.R. 302. The Senate passed a short-term reauthorization that was passed by the House that allowed for an additional week to pass the 5-year authorization. H.R. 302 was passed by the Senate 93-6 on October 3, 2018. It was signed by President Trump on October 4, 2018 and became Public Law 115-254.</p> <p>This legislation would extend a Federal-State partnership aimed at addressing state and regional water problems, promoting distribution and application of research results, and providing training and practical experience for water-related scientists and engineers. H.R. 1663 would authorize \$9,000,000 annually over five years for grants to water resources research institutes and require two-to-one matching with non-federal funds. It would also promote exploration of new ideas, expand research to reduce energy consumption, and bolster reporting and accountability requirements.</p>
H.R. 497/ S.357	Rep. Paul Cook (R-CA)/ Sen. Dianne Feinstein (D-CA)	Santa Ana River Wash Plan Land Exchange Act	<p>The bill has been introduced in the House Committee on Natural Resources and referred to the Subcommittee on Water, Power and Oceans on March 27, 2017.</p> <p>This bill directs the Department of the Interior: (1) to quitclaim to the San Bernardino Valley Water Conservation District in California approximately 327 acres of identified federal land administered by the Bureau of Land Management, and (2) in exchange for such land, to accept from the Conservation District a conveyance of approximately 310 acres of its land.</p> <p>On April 27th H.R. 497 passed through the House Natural Resources Committee by unanimous consent and was scheduled for the House Floor Consideration on June 2nd.</p> <p>This bill was passed by the House on June 27th by a vote of 424-0. The bill was referred to the Senate Committee on Energy and Natural Resources on June 28th and no further action has been taken.</p> <p>The Senate Environment and Public Works Committee held a hearing on S. 357 on July 26, 2017. On May 15, 2018 the Senate Committee on Energy and Natural Resources ordered H.R. 497 to be reported without amendment favorably.</p> <p>On August 15, 2018 Senator Murkowski from the Senate Committee on Energy and Natural Resources filed a written report to accompany H.R. 497.</p>

S. 32 / H.R. 857	Sen. Dianne Feinstein (D-CA) / Rep. Paul Cook (R-CA)	California Desert Protection and Recreation Act / California Off-Road Recreation and Conservation Act	<p>House and Senate staff included this bill in a bipartisan, bicameral legislative lands package that the Senate attempted to pass on Thursday, December 20. Due to an objection to a unanimous consent request, the legislation is now expected to be considered at the beginning of the 116th Congress.</p> <p>This bill would designate wilderness in the California desert and protect lands for recreation, wildlife and tourism. Aspects of the bill include:</p> <ul style="list-style-type: none"> • Mandate study and protection of Native American cultural trails along the Colorado River. • Designate 230,000 acres of additional wilderness area between the Avawatz Mountains near Death Valley to Imperial County’s Milpitas Wash. • Add 43,000 acres to Death Valley and Joshua Tree national parks. • Create a 75,000-plus acre special management area at Imperial County’s Vinagre Wash. • Designate Inyo County’s Alabama Hills as a National Scenic Area. • Prohibit new mining claims on 10,000 acres in Imperial County considered sacred by the Quechan Tribe. <p>Additionally, the bill protects 140,000 acres of existing off-road vehicle riding areas from mining, energy development, military base expansion or other decisions that would close them to vehicle use.</p> <p>The Senate Committee on Energy and Natural Resources, Subcommittee on Public Lands, Forests and Mining held a hearing on S.32 on July 26, 2017. On October 2, 2018 the Committee on Energy and Natural Resources ordered S. 32 to be reported with an amendment in nature of a substitute favorably. On December 6, 2018 S. 32 was placed on the Senate Calendar.</p> <p>H.R. 857, California Off-Road Recreation and Conservation Act, is a similar bill and largely aims to address similar issues. As the House has passed Congressman Cook’s bill, staff from the House and Senate are attempting to work on a path forward. The Senate received the bill and on October 2, 2018 the Committee on Energy and Natural Resources ordered H.R. 857 to be reported with an amendment in nature of a substitute favorably.</p> <p>House and Senate staff included this bill in a bipartisan, bicameral legislative lands package that the Senate attempted to pass on Thursday, December 20. Due to an objection to a unanimous consent request, the legislation is now expected to be considered at the beginning of the 116th Congress.</p>
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H.R. 2510	Rep. Peter DeFazio (D-OR)	Water Quality Protection and Job Creation Act of 2017	<p>This bill would amend the Federal Water Pollution Control Act to authorize appropriations for State water pollution control revolving funds.</p> <p>This bill was introduced on May 19, 2017 and was referred to the Subcommittee on Water Resources and Environment.</p> <p>This bill would allow water project sponsors the opportunity to use an expedited permitting process for new or expanded surface non-federal storage facilities through the Bureau of Reclamation, which would be the lead and central agency coordinating the review process.</p> <p>The House Natural Resources Committee approved the bill by a vote of 24-16 on April 27. The House Rules Committee on June 20th dictated final amendments for passage on the House Floor; this bill passed the House on June 22 by a vote of 233-180. H.R. 1654 was referred to the Senate Committee on Energy and Natural Resources on June 26 and no further action has been taken.</p> <p>This bill would allow for the provision of information and resources to fully use decentralized wastewater systems in the United States to provide affordable wastewater recycling and treatment.</p> <p>This bill was introduced on September 13, 2018 and referred to the Subcommittee on Water Resources and Environment (Transportation and Infrastructure) on September 14, 2018. It was referred to the Subcommittee on Commodity Exchanges, Energy, and Credit (Agriculture) on October 22, 2018.</p> <p>This bill would require Community Development Block Grant recipients to develop a strategy to support inclusive zoning policies and would allow for a credit to support housing affordability.</p> <p>This is an identical bill that was introduced in both the House and the Senate. The Senate version was introduced on August 1, 2018 and referred to the Committee on Finance. The House version was introduced on October 9, 2018 and was referred to the Committees on Ways and Means and Financial Services.</p> <p>This bill requires the Surface Transportation Board (STB) to develop a timeline and plan to implement the recommendations of the Inspector General of the Department of Transportation in Report No. FI2018002 concerning information security. The STB must report annually to the House Committee on Transportation and Infrastructure and the Senate Committee on Commerce on progress in implementing the recommendations until the implementation is complete.</p>
H.R. 1654	Rep. Tom McClintock (R-CA)	Water Supply Permitting Coordination Act	
H.R. 6804	Rep. Brian Babin (R-TX) / Rep. Terri Sewell (D-AL)	Onsite Wastewater Recycling Efficiency Act	
S. 3342 / H.R. 7050	Sen. Cory Booker (D-NJ) / Rep. Jim Clyburn (D-SC)	Housing, Opportunity, Mobility, and Equity Act of 2018	
H.R. 4921	Rep. Paul Mitchell (R-MI)	STB Information Security Improvement Act	

			<p>This bill was passed by the House as a voice vote on April 10, 2018 and passed in the Senate on October 1, 2018. It was signed by President Trump on October 16, 2018 and became Public Law 115-269.</p>
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**BIGHORN-DESERT VIEW WATER AGENCY STANDING COMMITTEE
PLANNING/LEGISLATIVE/ENGINEERING/GRANTS/SECURITY
AGENDA ITEM SUBMITTAL**

Meeting Date: January 15, 2019

To: PLEGS Committee Members

Budgeted: No

Budgeted Amount: \$10,000 Alliance
\$10,000 Associated Travel (est)

From: Marina D. West

General Counsel Approval: N/A

CEQA Compliance: N/A

Subject: Participation in Community Water Systems Alliance thru Partnership with California Association of Mutual Water Companies at a Cost of No More than \$10,000 Per Year with an Additional \$10,000 Per Year (est.) for Travel to Sacramento, if Necessary

SUMMARY

The California Association of Mutual Water Companies (CalMutuals) was founded in November 2013 primarily to serve the role to advocate, empower, train and network with mutual water companies. Recently CalMutuals embarked on a new mission to develop a "Community Water Systems Alliance" which would organize and advocate for special districts, county water districts, community service districts and cities that are "well run and operated while serving disadvantaged communities and other populations that entail revenue limitations, such as seniors" alongside CA mutual water companies.

The main reasons why Bighorn-Desert View Water Agency should participate at this time include: BDVWA is a Severely Disadvantaged Community, BDVWA is a "well run" small water system as evidenced by good water quality as well as sound financial practices, and BDVWA lacks the ability to self-advocate for misinformed legislation such as that coming in the form of a "water tax" and/or "low income rate assistance".

Mr. Adan Ortega, Executive Director of CalMutuals, will present the concept to the Committee and answer any questions regarding the program goals and objectives.

RECOMMENDATION

Make recommendation to Staff regarding participation in the CalMutuals Community Water Systems Alliance for a minimum period of two years at a cost not to exceed \$10,000 per year with an additional \$10,000 per year (est) for travel to Sacramento to testify about the affect the new laws will have on Agency operations.

BACKGROUND/ANALYSIS

At this time there are two existing bills that affect Agency operations: AB401 (Dodd) Low-Income Water Rate Assistance Program and SB998 (Dodd) Discontinuance of Residential Water Service. These are the first two pieces of legislation derived from AB685 (Eng)

While the legislature returned to session on January 7th, two critical reports have been released for public comment with tight deadlines the first week of February. The first is the State Water Resources Control Board AB401 (Dodd) Low Income Water Rate Assistance Program – this draft report to the legislature outlines options for how the program could be funded and administered. Deadline for comments is February 1, 2019. The second report is from the Office of Environmental Health Hazard Assessment (OEHHA). This is the Draft Framework and Tool for Evaluating Progress on the Human Right to Water. This report addresses water quality, access to water and affordability in the metric for evaluating progress in providing water to all. Deadline for comments is February 4, 2019.

Attached to this staff report are the following documents:

- Bill text for AB685 (Eng) State Water Policy; Human Right to Water
 - Office of Environmental Health Hazard Assessment January 2019 Draft Report: A Framework and Tool for Evaluating California’s Progress in Achieving The Human Right to Water
- Bill text for AB401 (Dodd) Low-Income Water Rate Assistance Program
 - State Water Resources Control Board January 2019 Draft Report: Options for Implementation of a Statewide Low-Income Water Rate Assistance Program
- Bill text for SB998 (Dodd) Discontinuation of Residential Water Service: Urban and Community Water Systems
 - “SB998 (Dodd) and the Quest for Water Affordability” PowerPoint Presentation by Adan Ortega, Executive Director, CalMutuals.
- CalMutuals Report of December 3, 2018 Outlining Community Water System Alliance purpose, framework and operation.
- CalMutuals Draft Memorandum of Understanding for participation in the Community Water System Alliance.

Mr. Adan Ortega, Executive Director of CalMutuals, will present the concept to the Committee and answer any questions regarding the program goals and objectives.

PRIOR RELEVANT BOARD ACTION(S)

None

Assembly Bill No. 685

CHAPTER 524

An act to add Section 106.3 to the Water Code, relating to water.

[Approved by Governor September 25, 2012. Filed with
Secretary of State September 25, 2012.]

LEGISLATIVE COUNSEL'S DIGEST

AB 685, Eng. State water policy.

Existing law establishes various state water policies, including the policy that the use of water for domestic purposes is the highest use of water.

This bill would declare that it is the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. The bill would require all relevant state agencies, including the Department of Water Resources, the State Water Resources Control Board, and the State Department of Public Health, to consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and grant criteria are pertinent to the uses of water described above.

The people of the State of California do enact as follows:

SECTION 1. Section 106.3 is added to the Water Code, to read:

106.3. (a) It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

(b) All relevant state agencies, including the department, the state board, and the State Department of Public Health, shall consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section.

(c) This section does not expand any obligation of the state to provide water or to require the expenditure of additional resources to develop water infrastructure beyond the obligations that may exist pursuant to subdivision (b).

(d) This section shall not apply to water supplies for new development.

(e) The implementation of this section shall not infringe on the rights or responsibilities of any public water system.

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A FRAMEWORK AND TOOL FOR EVALUATING CALIFORNIA'S PROGRESS IN ACHIEVING THE HUMAN RIGHT TO WATER

JANUARY 2019 DRAFT

Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

Contributors

This report was prepared by the Office of Environmental Health Hazard Assessment (OEHHA), within the California Environmental Protection Agency (CalEPA).

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Table of Contents

Abbreviations	iii
Introduction	1
Framework and Tool: Approach and Overview	4
Approach to Building a Framework	4
Framework Overview	4
A Holistic View of Water Systems	7
Component 1: Water Quality	9
Water Quality and Its Subcomponents	9
Methods	10
Exposure Subcomponent	13
Non-Compliance Subcomponent	16
A Composite View of Water Quality	17
Component 2: Water Accessibility	18
Water Accessibility and Its Subcomponents	18
Physical Vulnerability Subcomponent.....	19
Institutional Vulnerability Subcomponent.....	20
A Composite View of Water Accessibility	21
Component 3: Water Affordability	23
A Holistic View of Water Systems: Applications and Cases	31
Applications.....	31
Hypothetical Case Studies	34
Summary	38
Conclusions and Next Steps	40
Appendices	41
Works Cited	44

Abbreviations

AL	Action Level
AB 685	Assembly Bill No. 685
CPT	County Poverty Threshold
CWS	Community Water System
DBCP	1,3-Dibromo-3-chloropropane
DAC	Disadvantaged Communities
JMP	Joint Monitoring Program
LCR	Lead and Copper Rule
MCL	Maximum Contaminant Level
MHI	Median Household Income
MTBE	Methyl tertiary butyl ether
OEHHA	Office of Environmental Health Hazard Assessment
PCE	Perchloroethylene
PHG	Public Health Goal
SDAC	Severely Disadvantaged Community
TMF	Technical, managerial, and financial capacity
TCR	Total Coliform Rule
TTHM	Total Trihalomethanes
TCE	Trichloroethylene
1,2,3-TCP	1,2,3-Trichloropropane
UN	United Nations
UNICEF	United Nations Children's Fund
UN CESCR	United Nations Committee on Economic, Social, and Cultural Rights
US EPA	US Environmental Protection Agency
WHO	World Health Organization



Introduction

Reliable access to safe and affordable water is fundamental to human health and well-being. Yet many factors can limit people's access to this essential resource. These factors include groundwater and surface water source contamination, aging infrastructure, unaffordable rates, and, at times, unreliable water service. Drought and climate change also dramatically affect water quality, availability, and affordability.

In California, nearly 300 communities rely on water sources that contain elevated levels of arsenic, which can cause cancer, birth defects, and heart disease, among other health effects. Other Californians depend on small water systems and domestic wells impacted by contaminants like nitrate, which can likewise cause detrimental health outcomes.¹ Across the state, contaminated water sources disproportionately burden low-income communities and communities of color, further stressing some of the state's most vulnerable populations. Developing tools and policy solutions to address water quality problems, avoid water scarcity and shutoffs, and improve the technical, managerial, and financial capacity of our water systems is therefore increasingly critical.

In 2012, with the enactment of Assembly Bill (AB) 685 (Eng, Chapter 524, Statutes of 2012), California became the first state to declare that every human being in our state has a right to clean, safe, affordable, and accessible water adequate for human consumption and sanitary purposes. The legislation instructed all relevant state agencies, including the State Water Resources Control Board (State Water Board, or Board), to consider the human right to water when revising, adopting, or establishing policies, regulations, and grant criteria pertinent to water uses. The State Water Board strives to protect the quality, accessibility, and affordability of California's water by developing and enforcing environmental and drinking water standards, tracking comprehensive water quality data, and administering water conservation programs, among various other efforts. In 2016, the Board adopted a Human Right to Water Resolution² making the human right to water, as defined in AB 685, a primary consideration and priority

¹ Harter, et al. (2012), "Addressing Nitrate in California's Drinking Water with a Focus on Tulare Lake Basin and Salinas Valley Groundwater: Report for the State Water Board Report to the Legislature," University of California, Davis, July 2012.

² State Water Board. Human Right to Water Resolution. Available at URL: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/rs2016_0010.pdf.

across all of the state and regional boards' programs (State Water Resources Control Board Resolution No. 2016-0010).

Recently, the Board enlisted the expertise of the Office of Environmental Health Hazard Assessment (OEHHA) to develop a framework for evaluating the quality, accessibility, and affordability of the state's domestic water supply. Once populated with data, the framework described in this report can be used as a tool to track changes and needs across the state's community water systems and across the framework's three principal analytic components – water quality, accessibility, and affordability. This marks the first state-led effort to develop a conceptual framework and method for assessing the status of the state's water systems in the context of AB 685 and tracking progress in achieving the statute's broad policy goals. Other related efforts focus on one aspect of water service, or present results at a single point in time. This framework and tool will uniquely offer information that can be viewed over time, at the state or system-level, across all three principal components of the State's human right to water.

With input and additional data, the framework and tool will be further developed and refined. For example, the current framework and tool would specifically analyze water quality, accessibility, and affordability, at the community water system level, over time. At this stage, it does not include state small water systems, or private wells. However, with additional information, the tool's indicators and the framework can include these systems, and, coupled with data from the State Water Board's existing databases, the tool can provide critical data points to inform a variety of policy decisions.

While OEHHA's proposed framework and tool looks at three components of domestic water supply across the State's public water systems, the State Water Board also is developing a separate report that focuses on affordability challenges and potential solutions for low-income households, pursuant to AB 401 (Dodd, Chapter 662, Statutes of 2015). The report will consider concepts such as low-income rate assistance and rate design changes. The Board's draft AB 401 report therefore covers some of the same ground as OEHHA's framework, but begins a more detailed discussion of what a low-income rate assistance program could look like, and what factors the state should consider in developing a successful program model. OEHHA encourages all stakeholders and members of the public to review and provide comments on the State Board's draft report.

In the long term, ensuring that California's human right to water is realized will require funding, technical assistance, and policy changes, and basic information on the availability of water, including a method to monitor, track, and assess the adequacy of water access, quality, and affordability across the state, as proposed in this report. OEHHA's draft framework outlines a systematic approach for developing and applying a set of indicators to characterize progress toward achieving this right, and it complements the State Water Board's more specific

evaluation of policy options to address the burden that rising water rates place on low-income families.

This draft report first presents an overview of the framework and tool. Next, it introduces each of the three components—water quality, water accessibility and water affordability—along with the indicators that comprise each component. The report then explains how the tool might work, walking readers through a series of hypothetical cases with supporting visual information. Finally, following a brief conclusion, the draft report includes a number of appendices that review various technical aspects of the discussion. OEHHA welcomes, and looks forward to receiving the public’s input on this draft document.



Framework and Tool: Approach and Overview

Approach to Building a Framework

In developing this framework and tool, OEHHA drew on existing international approaches to tracking the human right to water, most importantly those of the World Health Organization and the United Nations' Joint Monitoring Program (WHO and UNICEF 2017b). OEHHA adapted these approaches to develop a framework and specific indicators that address the conditions and needs of California.³ These efforts are also intended to complement and build upon the work of the State Water Board and other agencies to ensure the quality, accessibility, and affordability of California's domestic water supply.⁴

The goals are to:

- 1) Reflect core, California-specific objectives for safe, clean, affordable, and accessible water that is adequate for human consumption, cooking, and sanitary purposes for all state residents.
- 2) Create a system of indicators of water quality, accessibility and affordability that can be examined individually or in groups to allow for a nuanced understanding of key domestic water issues.
- 3) Develop a working data set and analytic framework to which indicators can be added, or in which indicators can be refined, based on public input, policy needs and data availability.
- 4) Outline an approach to evaluate trends in the provision of clean, safe, accessible and affordable drinking water to all Californians, and assess progress over time.

Framework Overview

Assessing the overall adequacy of the provision of water means taking into account the following three objectives:

Water Quality: The water supplied to California residents should be safe to use. This means that it should be free from harmful bacteria and other pathogens, and that the

³ OEHHA followed Holst Jensen et al.'s (2014) methodology for developing the framework for the screening tool, while drawing on international tracking efforts such as the United Nations' Joint Monitoring Program (UNICEF 2017).

⁴ Domestic water supply refers to water that is used for indoor and outdoor household purposes such as drinking, cooking, bathing, etc.

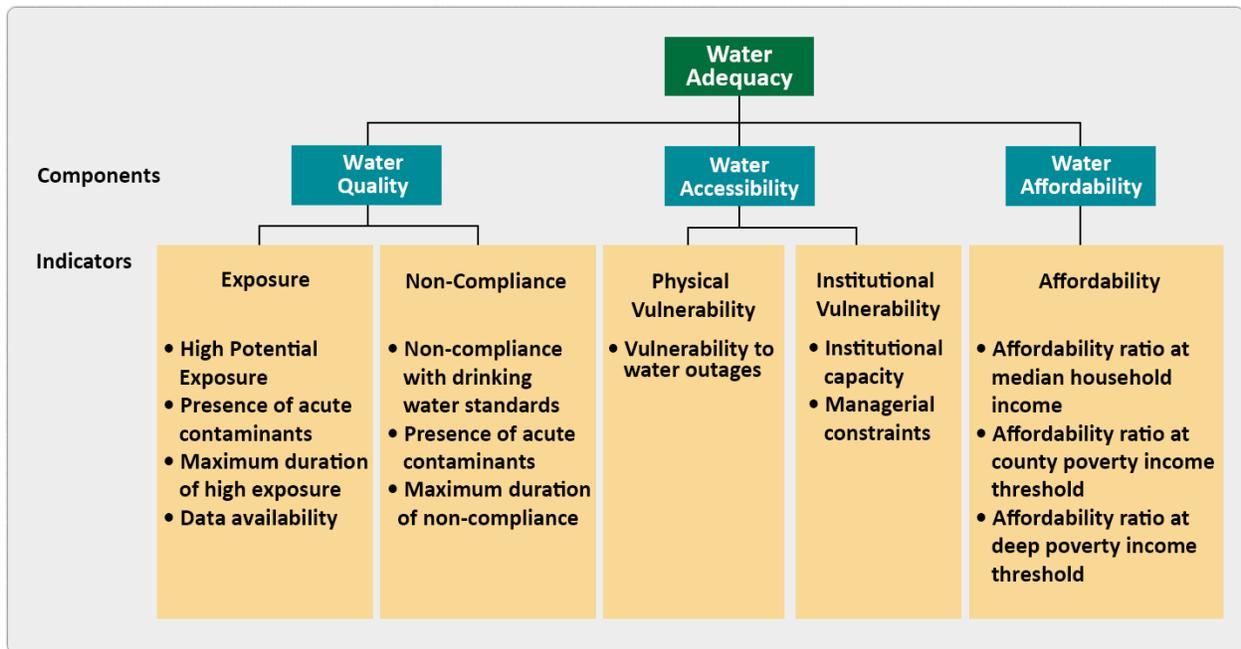
levels of chemical contaminants such as solvents and pesticides, heavy metals, and radioactivity should not pose significant public health risks.

Water Accessibility: Water should be easily accessible in sufficient and continuous amounts to meet everyday household needs. For example, it should be available for drinking, preparing food, bathing, clothes washing, household cleaning, and toilet use.

Water Affordability: Water to meet household needs should be affordable, taking into consideration the amount of the household water bill, after accounting for other demands on income, and the direct and indirect costs associated with obtaining access to the water.

The framework uses indicators to characterize the three components. A total of 13 indicators are used to measure water quality, accessibility, and affordability for community water systems. These are represented in Figure 1. Each indicator has been chosen based on current data availability, data coverage and data quality. Other indicators that have not been included due to data limitations may be added or refined in future versions, as improvements in data collection permit (see Appendix, Table A1).

Figure 1. Proposed framework. Components are indicated in blue boxes. In each yellow box, subcomponent names are indicated at the top, followed by individual bulleted indicators.



Unit of Analysis

This first version of this framework and tool analyzes community water systems. These are defined as public water systems that serve at least 15 year-round service connections, or regularly serve at least 25 yearlong residents (Health and Safety Code Section 116275). Future versions of this framework and the associated tool may include other entities such as schools, and communities served by non-public water systems (e.g., those that have private domestic wells).

Time Period

This framework focuses on data from the most recent time period available across each dataset. However, it also offers a long-term view of water quality indicators, from 2008 to 2016 (for more information on this point, see the section of this report entitled Time Period, under Component 1: Water Quality). Data for all other indicators is intended to be from 2016, or as close to 2016 as possible.

Indicator Selection and Scoring

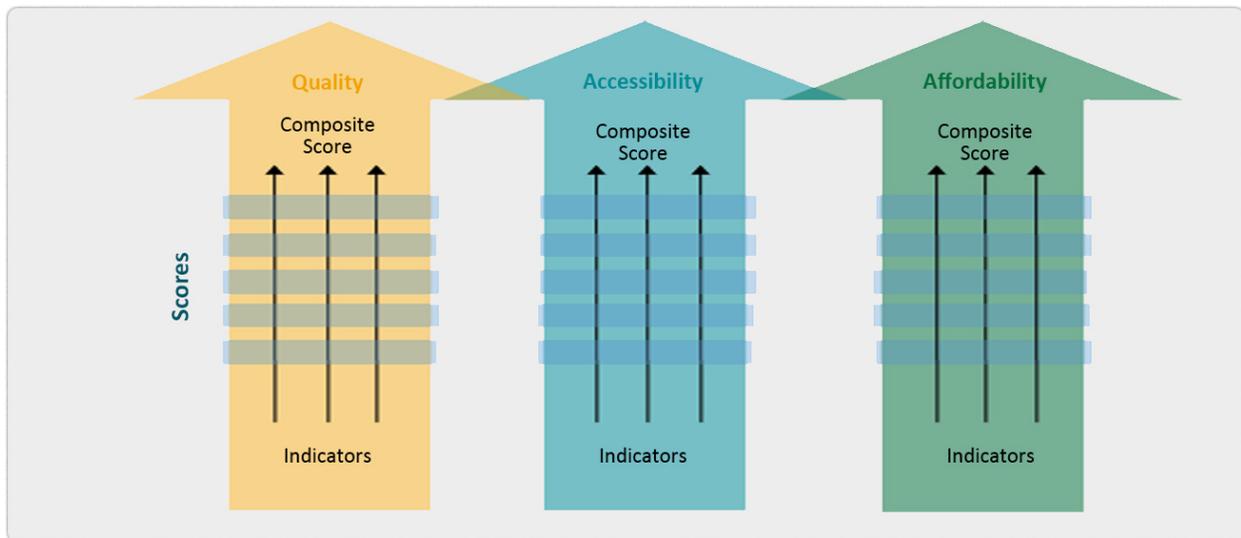
To create indicators for each component, we:

- Assess sources of data for quality, coverage, and availability.
- Select data for the relevant time period that is high quality, provides broad coverage, and is publicly available.

As shown conceptually in Figure 2, we then:

- Calculate each indicator value.
- Assign scores to each indicator, with higher values given to systems that perform favorably in the area that the indicator represents, and lower values given to systems that perform less favorably. This results, for example, in a higher score for better water quality, and a lower score for poorer water quality.
- Develop a composite scoring approach for each component, so that individual water systems have an overall score for water quality, accessibility and affordability based on the indicators that comprise each component.

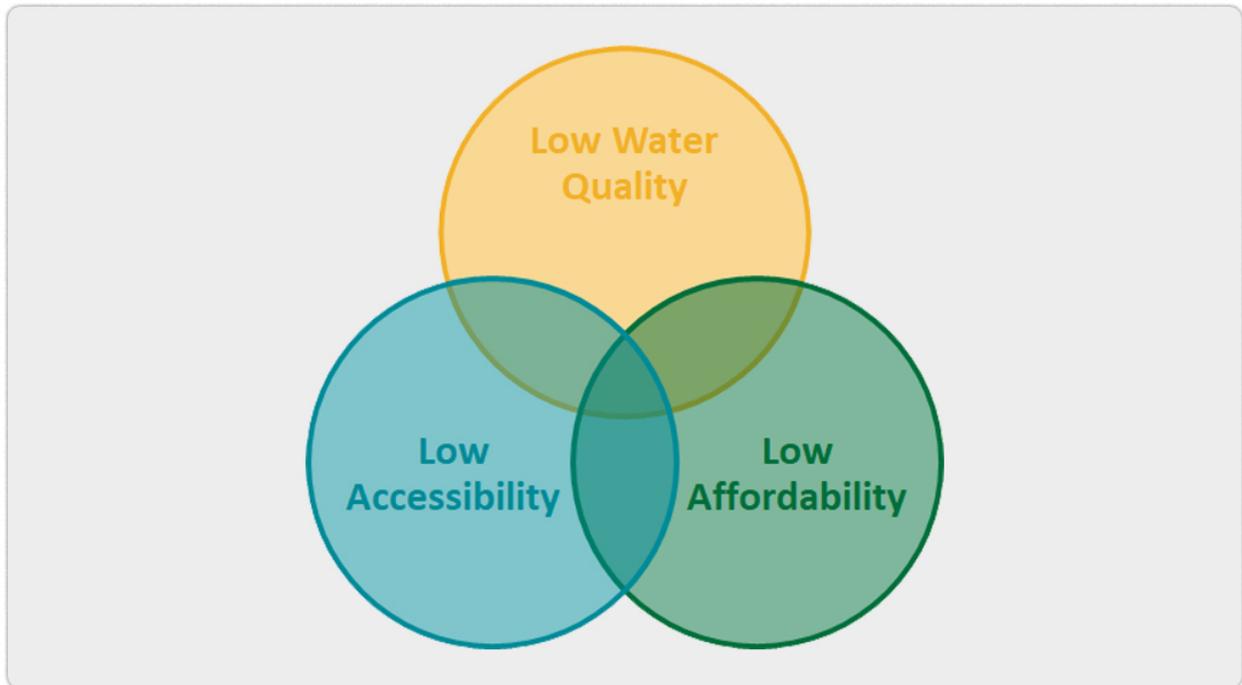
Figure 2. Conceptual view of the proposed framework and tool. The framework is composed of three core components, with indicators assigned to each component. Higher indicator scores reflect better water quality, accessibility or affordability.



A Holistic View of Water Systems

While individual indicators associated with each the framework’s three components provide useful information, decision-makers may wish to assess water systems across components, to better understand the relationship between various water delivery and service characteristics. For this purpose, it is valuable to use the three composite component scores for a given system, to illustrate a system’s overall status. Such a cross-component view can allow users to understand how a system’s water quality, accessibility and affordability might relate to each other, as demonstrated conceptually in Figure 3, which is further elaborated upon later in the report (see Figure 9). The cross-component view offered by this framework can help identify water systems and regions that may need a more in-depth evaluation of water challenges. Periodic updating of the indicators will also illuminate broad trends and progress over time.

Figure 3. Conceptual view of how multiple challenges can affect individual water systems. The proposed framework and tool allow users to view overall trends for each human right to water component—quality, accessibility, affordability—while also comparing the overall status of a water system across these three components.



Finally, while a cross-component view yields valuable information, it is important to also recognize that each of the three components alone, and their associated indicators, offer important data and scores that are useful for planning and shaping policy solutions to local water system challenges. A holistic view of an individual or set of water systems should not replace a more specifically tailored view that might facilitate the development of an appropriate solution to a particular system-level challenge. For example, a system with unsafe drinking water needs an immediate remedy to address water quality, regardless of whether the supply is plentiful, and the rates are low. In other words, a system's deficiencies in any given single component should not be outweighed or downplayed by more favorable performance in the other components.



Component 1: Water Quality

Water Quality and Its Subcomponents

Clean water that is safe to drink is essential to human health. Although domestic water supplies in California are some of the safest by international standards, not everyone in the state enjoys the same level of water quality.

In this framework, water quality is evaluated in two basic ways, using two subcomponents:

- A “contaminant exposure” subcomponent measures the extent of exposure to chemical and microbiological contaminants in the drinking water.
- A “non-compliance” subcomponent measures the extent to which a water system fails to comply with primary drinking water standards.⁵

Each of the water quality subcomponents provides different kinds of critical information in evaluating the quality of the water provided by the system. Non-compliance status is determined by whether a water system adheres to drinking water regulatory standards (as determined by Maximum Contaminant Levels [MCL]). These standards are based on a combination of public health, technical feasibility, and economic considerations.

Compliance status offers important information about how successfully water systems are meeting established goals. However, measuring compliance alone may not capture the precise public health implications of exposure to drinking water contaminants because compliance with most regulatory standards is determined by whether a system’s individual water sources meet these standards at the well or the site of a surface water intake.⁶ Exposure levels, on the other hand, are determined by water quality at the tap. Exposure levels therefore differ from compliance status, and it is important to quantify them separately.

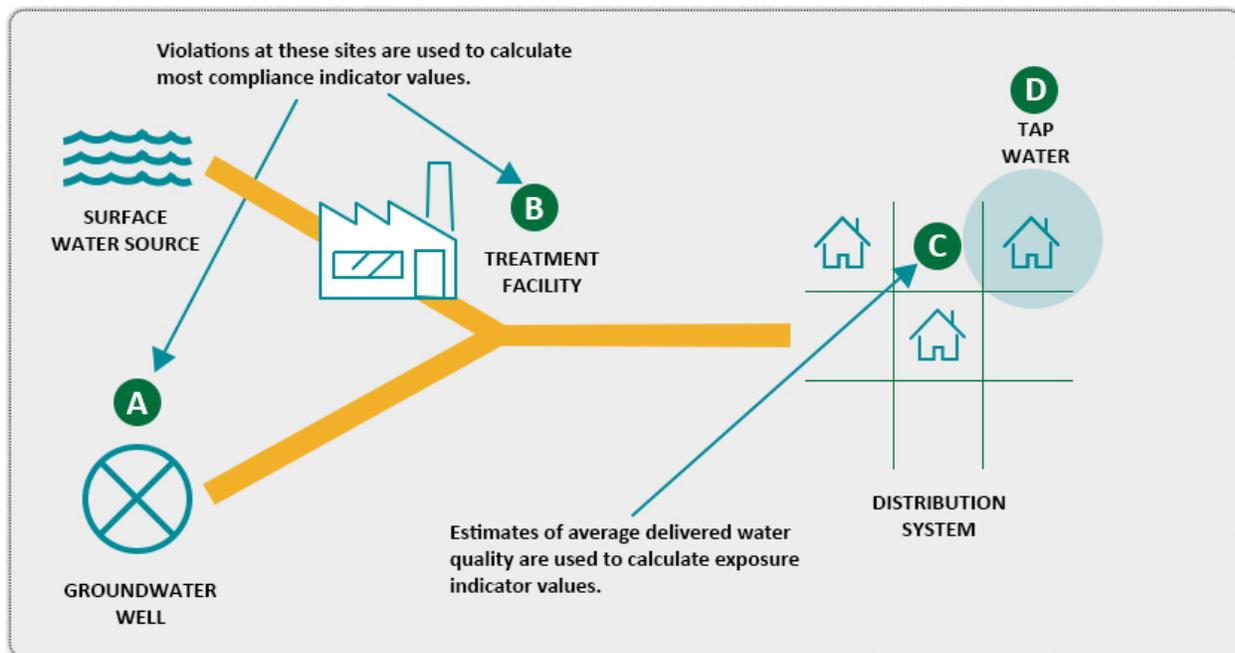
Figure 4 serves to make these various points. Here, a hypothetical community water system is shown to have a surface water source and a groundwater source. Generally, compliance with regulatory standards is assessed at the site of a groundwater well (A) and/or at the treatment facility (B). MCL violations issued at these locations are used to calculate the framework’s compliance indicator values. Point C represents points in the system where average delivered water quality is calculated; this measurement is used to calculate the framework’s exposure

⁵ Most human right to water efforts, such as the United Nations’ Joint Monitoring Program, only evaluate water quality in relation to compliance with regulatory standards.

⁶ Exceptions include samples for the Total Coliform Rule (TCR), the Lead and Copper Rule (LCR) and the Disinfectants/Disinfection Byproducts Rule (DBPR). For example, compliance for TCR is determined using water samples taken from the distribution system.

indicators, and represents an estimate of tap water quality at Point D.⁷

Figure 4. Diagram of a hypothetical community water system. Generally, compliance with regulatory standards is assessed at the site of a groundwater well (A) and/or at the treatment facility (B). MCL violations issued at these locations are used to calculate the framework's compliance indicator values.* Point C represents points in the system where average delivered water quality is calculated; this measurement is used to calculate the framework's exposure indicators and represents an estimate of tap water quality at Point D.



* MCL violations for the Total Coliform Rule (TCR) and the Lead and Copper Rule (LCR) occur within the distribution system.

Methods

Time Period

Indicators related to water quality for the initial version of the tool will be drawn from a nine-year period from 2008 to 2016. This time period covers the most recent data available, while still including three consecutive compliance periods.⁸ This is more effective than simply showing water quality for the most recent year, since not all systems may be required to report monitoring data within this shorter time frame. Using the nine-year compliance cycle also

⁷ Data about water quality at the tap, and hence about exposure, are not widely available. To compensate for this, the average water quality of delivered water can represent potential exposure. This is the best way available to accurately capture information about water quality before water enters the household distribution system (Balazs et al. 2011; OEHHA 2017).

⁸ US EPA guidelines govern the monitoring and reporting of drinking water quality over three-year compliance periods, within nine-year compliance cycles (US EPA 2004). In order to include the most recent data, our study period spans the second and third compliance periods of the 2002-2010 compliance cycle (i.e., 2005-2010), and the first compliance period of the 2011-2019 compliance cycle (i.e., 2011-2013).

provides a cumulative view of how water systems have performed with regard to water quality.

Contaminants Selected

The proposed water quality indicators are based on exposure levels and compliance for a set of drinking water contaminants. Each contaminant was selected based on whether there was significant coverage of water quality sampling data for the specified contaminant in the Water Quality Monitoring database across water systems in the 9-year time period between 2008 and 2016. Specifically, contaminants for which at least 80% of community water systems in the state reported at least one monitoring sample were included. These 14 contaminants are:

Arsenic, barium, benzene, cadmium, carbon tetrachloride, lead, mercury, methyl tertiary butyl ether (MTBE), nitrate, perchloroethylene (PCE), perchlorate, trichloroethylene (TCE), toluene, and xylene (See Table 1).⁹

Contaminants associated with significant health effects but for which less than 80% of water systems had samples, or for which there are a significant number of MCL violations, were deemed to be “high priority” and were also selected. These four additional contaminants are:

1,2-dibromo-3-chloropropane (DBCP), 1,2,3-trichloropropane (1,2,3-TCP), total trihalomethanes (TTHM) and uranium (See Table 1).¹⁰

⁹ While radium-226 and radium-228 (radioactive breakdown products of uranium) meet the criteria for inclusion, an assessment is underway regarding how best to include sampling data for these contaminants. Thus, the current framework does not currently include these contaminants.

¹⁰ The presence of hexavalent chromium is a serious health concern, but this chemical is not currently in the framework because it does not have an MCL (State Water Board 2017).

Table 1. List of 19 contaminants currently included in the proposed framework and tool. The table indicates whether the contaminant was used for the water quality indicators, and the percentage of systems statewide that had samples for this contaminant. A water system is said to have coverage when there is at least one water quality monitoring sample for this system in the period from 2008 to 2016.

Contaminant	Measure Used in Water Quality Indicators		Percent of Systems with Water Quality Monitoring Data
	Exposure	Compliance	
Arsenic	Yes	Yes	95%
Barium	Yes	Yes	95%
Benzene	Yes	Yes	93%
Cadmium	Yes	Yes	95%
Carbon tetrachloride	Yes	Yes	93%
Dibromochloropropane (DBCP)	Yes	Yes	59%
Lead [†]	Yes	No	95%
Mercury	Yes	Yes	95%
Methyl tertiary butyl ether (MTBE)	Yes	Yes	93%
Nitrate	Yes	Yes	97%
Perchloroethylene (PCE)	Yes	Yes	92%
Perchlorate	Yes	Yes	96%
Trichloroethylene (TCE)	Yes	Yes	92%
1,2,3-Trichloropropane (1,2,3-TCP) [†]	Yes	No	63%
Toluene	Yes	Yes	92%
Total Coliform [†]	Yes	Yes	Not available
Total Trihalomethanes (TTHM)	Yes	Yes	74%
Uranium	Yes	Yes	45%
Xylene	Yes	Yes	92%

[†] Adjustments: For lead, the average of the 90th percentile sample results resulting from Lead and Copper Rule (LCR) monitoring is used. For 1,2,3-TCP, the 2017 MCL level is used as the threshold against which to assess potential exposure. For total coliform, MCL violations are used to approximate potential exposure.

Exposure Subcomponent

Approach

OEHHA developed four exposure indicators that measure:

1. The nature of contaminant concentrations (“high potential exposure”).
2. Whether contaminants are acutely toxic.
3. The duration of high potential exposure.
4. The availability of monitoring data.

In generating these indicators, average delivered water quality for each contaminant is used to represent exposure to drinking water contaminants at the tap.¹¹ This draws on the approach used in CalEnviroScreen to calculate annual, time-weighted average concentrations per contaminant (OEHHA 2017). A contaminant’s MCL is used as a benchmark against which to compare measured concentration levels. Potential exposure—measured as the annual average concentration of delivered water quality—is considered to be high if the annual average water concentration of a contaminant is at or above the MCL. Potential exposure is considered not to be high if it is below the MCL. Indicating that a potential exposure is not high under this approach is not intended to suggest that there is no health risk for a contaminant. OEHHA’s Public Health Goals (PHG) for drinking water are the benchmark used to determine health risks from exposure to contaminants. However, it is not practical to use the PHGs as a threshold for this indicator, as the detection limit for many contaminants is well above the corresponding PHG.

Depending on the indicator, contaminant-specific adjustments are made:

- For 1,2,3-TCP, the 2017 MCL is used as a relevant threshold for *exposure-related* indicators, although the MCL was adopted after 2016, the last year of this study’s time period.
- For lead, the data is used in two ways. First, tap water sampling results for the 90th percentile of samples (as per the Lead and Copper Rule [LCR]) are used to calculate the *exposure indicator*. This data is used instead of average delivered water quality estimates, as is done for other contaminants. Lead levels are then assessed against lead’s Action Level (rather than an MCL). Therefore, we compare the average of these 90th percentile results to lead’s Action Level.¹²
- Total coliform counts are monitored regularly. However, sample results for total coliform are not presently included in the state’s public electronic water quality

¹¹ This approach was originally used in the CalEnviroScreen methodology developed by OEHHA (OEHHA 2017).

¹² Lead does not have a Maximum Contaminant Level. Instead, 90th percentile sampling results are compared to an Action Level (Lead and Copper Rule; Title 17, California Code of Regulations, section 64673).

monitoring databases.¹³ Here, we propose using MCL violations of the Total Coliform Rule (TCR) to represent potential high exposure events, instead of the average contaminant concentration, as is done for other contaminants. Thus, MCL violations of the TCR are used to calculate both exposure and compliance indicators.¹⁴

Indicators



Water Quality Indicator 1: High Potential Exposure

This indicator evaluates the number of contaminants with high potential exposure levels. We define *high potential exposure* as a situation in which a system's average annual contaminant concentration is at or above the MCL for the contaminant at least once during the study period. This indicator then counts the number of contaminants whose average annual concentrations have been at or above the MCL during the study period. As shown in Table 1, this indicator assesses average annual contaminant concentrations relative to the MCL or relevant benchmark for 18 of the 19 contaminants of interest, and uses TCR MCL violations to represent high potential exposure for TCR.

As noted in the previous section, with the exception of lead and total coliform, we quantify *high potential exposure* by comparing the average annual concentrations of contaminants for the water system to the relevant MCL. For total coliform, given a lack of bacteriological sampling results, MCL violations serve to represent potential exposure. For lead, concentrations from samples representing the 90th percentile were compared against lead's Action Level. This results in a measure of potential high exposure for lead that is different than the measure for potential high exposure used for other contaminants (i.e., other contaminants use the average quality of delivered water across the system compared to the MCL). However, given lead's toxicity, and the fact that LCR sampling data is the best available lead concentration data, we include this measure.



Water Quality Indicator 2: Presence of Acute Contaminants

This indicator assesses if any of the contaminants for which there was high potential exposure are *acute contaminants* as defined by regulatory standards. Here, *acute risk* refers to a situation in which there is the potential for a contaminant or disinfectant residual to cause acute health effects (i.e., death or illness) as a result of a single period of exposure measured in seconds, minutes, hours, or days (Health and Safety Code section 64400). Among the

¹³ TCR results are sent as hardcopies by laboratories directly to the State Water Board District Offices and Local Primacy Agencies. Compliance decisions are made manually, and any resulting information about violations is then entered into the Safe Drinking Water Information System database.

¹⁴ Future versions of this framework and tool may include new measures of bacteriological contamination to reflect the implementation of the recently revised TCR.

contaminants regulated in California, the following are considered acute or semi-acute for the purpose of Tier 1 Public Notice: nitrate, nitrite, or nitrate plus nitrite, perchlorate, and E. coli/fecal coliform (Health and Safety Code section 64463.1a).¹⁵



Water Quality Indicator 3: Maximum Duration of High Potential Exposure

This indicator measures the duration of high potential exposure for each of the 19 contaminants by summing the number of years for which a contaminant had high potential exposure (from 2008 to 2016). It then selects the maximum duration of high potential exposure, across all contaminants, during the nine-year study period (2008-2016). In contrast to Indicator 1, which captures how many systems have had any high-contaminant concentrations, this indicator focuses on the recurring nature of contamination. Accordingly, it is meant to highlight systems that show an ongoing contamination problem. Capturing this recurring exposure is important, especially when such exposure involves contaminants whose health effects are associated with chronic exposure. Furthermore, regardless of whether a contaminant is chronic or not, a long duration of potential high exposure can also signal that a system may need additional resources or support to remedy contamination.



Water Quality Indicator 4: Data Availability

Water quality monitoring is essential not only to ensure compliance with drinking water standards, but also to ensure that water systems and their customers have adequate information to develop appropriate responses. While Monitoring and Reporting violations capture instances of a water system not adhering to monitoring and reporting requirements (Title 22, California Code of Regulations, Section 60098), Indicator 4 measures how much data on water quality is available in current water sampling databases. It is used to estimate the adequacy of information with respect to a system's water quality.

In particular, this indicator evaluates the extent of system water quality sampling data for 14 contaminants for which a system must have conducted water quality monitoring. Depending on the contaminant, a system would need to sample at least once in the nine-year time period, in at least three separate years, or in all nine years, depending on the contaminant. According to the US EPA's Standardized Monitoring Framework (US EPA 2004), the following 11 contaminants should be sampled at least once, and should have at least one data sample for this nine-year time period: arsenic, barium, cadmium, mercury, benzene, MTBE, carbon tetrachloride, toluene, TCE, PCE, and xylene. Two contaminants—lead and perchlorate—should be sampled at least three times, and have at least three samples.¹⁶ Nitrate and total coliform

¹⁵ Chlorine dioxide is also an acute contaminant, but is not included in this framework.

¹⁶ According to monitoring regulations, sampling for these contaminants must actually occur once in each compliance period. However, for the purposes of this report (and based on guidance we received from the State

must be sampled in each of the study period's nine years. However, because monitoring results for total coliform are not included in state water quality monitoring databases, total coliform is not included in this indicator. Thus, excluding total coliform, 14 contaminants are included in this indicator.

Non-Compliance Subcomponent

Approach

The framework's non-compliance indicators capture regulatory non-compliance with drinking water standards that can be associated with occasional (or ongoing) increases in contaminant concentrations *at the source level*.¹⁷ As noted above, compliance with most regulatory standards is determined by whether a system's individual water sources meet regulatory standards (these measurements typically occur at the well or the site of a surface water intake). Here, we consider an instance of non-compliance to be based on whether an MCL violation is recorded for the primary drinking water contaminants listed in Table 1.

Indicators



Water Quality Indicator 5: Non-Compliance with Primary Drinking Water Standards

This indicator evaluates the number of contaminants that have been in non-compliance with the MCL during the study period for 17 of the 19 contaminants of interest (see Table 1). The two excluded contaminants are 1,2,3-TCP and lead. The chemical 1,2,3-TCP is excluded because its MCL was not effective until 2017, meaning that no MCL violations were issued during the study period. Lead is not included because there is no MCL for lead, only an Action Level. However, monitoring and reporting violations of the LCR are included in the count of Monitoring and Reporting violations, which is part of the accessibility component.



Water Quality Indicator 6: Presence of Acute Contaminants

A second, related compliance indicator assesses which, if any, of the non-compliance events have involved acute contaminants. Nitrate, perchlorate and E. coli/fecal coliform violations are considered, as they are for the exposure indicators.

Water Board), sampling results occurring during any three years of the entire time period of 2008 to 2016 are considered sufficient.

¹⁷ Here, the term source refers to a facility that contributes water to a water distribution system, such as one associated with a well, surface water intake, or spring.



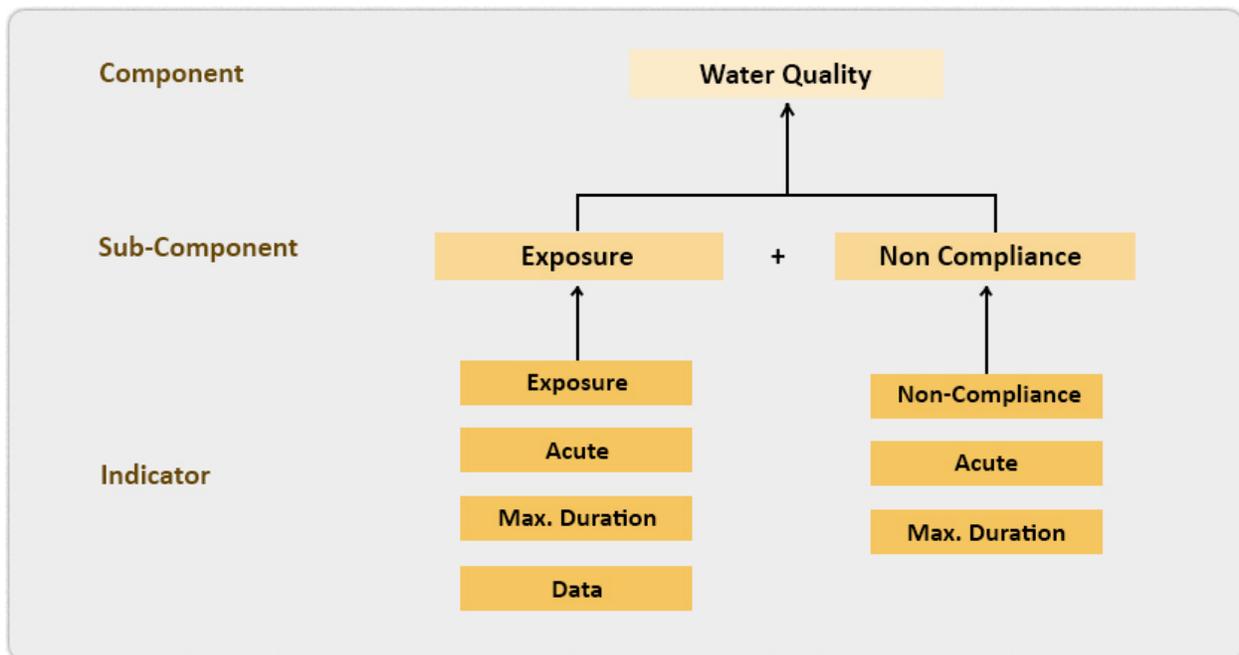
Water Quality Indicator 7: Maximum Duration of Non-Compliance

This indicator assesses the duration of non-compliance across all contaminants. To do so, for each system, the indicator sums the number of years (from 2008 to 2016) in which a given contaminant has been cited for at least one MCL violation. Importantly, the total number of violations per year *is not* counted, to control for various types of differences in monitoring and reporting across systems. Thus if one system experienced four nitrate violations in a given year, and another experienced only one, both systems would be considered to have had “at least one” nitrate MCL violation. The indicator then selects the maximum duration of non-compliance for each system, across all contaminants, during the time period.

A Composite View of Water Quality

Individual water quality indicators help highlight specific water quality problems. However, combining individual indicator scores to create a composite water quality score can highlight which systems have poor outcomes across several or all indicators, and which systems are therefore the most burdened in a cumulative sense. Figure 5 illustrates how individual indicator scores can be combined to yield a composite water-quality component score.

Figure 5. Creation of composite water quality score.





Component 2: Water Accessibility

Water Accessibility and Its Subcomponents

Easy, sufficient and continuous access to reliable water to meet basic household needs is not always assured. Some water systems in the state are particularly vulnerable. During the 2012-2016 drought, a number of water systems could not provide enough water to supply people's basic needs, and a large number of domestic wells went dry.

The water accessibility component of this framework addresses concerns of this kind. Its component measures both the physical and institutional vulnerability that can influence whether a water system can provide adequate supplies of water to meet household needs.

Water access is determined by a number of factors. These typically include:

1. The physical quantity of water that a water system can provide, or that a population can obtain.
2. The availability and reliability of the supply (i.e., whether the supply is sufficient and continuous, even in periods of drought).
3. How people or water systems access water (e.g., the source type and collection time).
4. The economic accessibility of the water obtained (i.e., the economic cost and its impact).¹⁸

There are many factors that interact with each other to either inhibit or promote access. For example, water access can be shaped by factors internal to a water system such as the number of wells, or by factors external to the system such as drought. The current framework focuses on system-related characteristics that may impede access to reliable and adequate water supplies, especially during times of severe stress. In this framework, the water accessibility component consists of two subcomponents: 1) the *physical* vulnerability of a water system to inadequate water supply and provision; and 2) the *institutional* vulnerability of a water system to inadequate water supply and provision.

Physical vulnerability refers to the factors that may interfere with the availability and reliability of an adequate water supply for a system's customers. For example, physical vulnerability may be shaped by how many wells a system has, and whether these wells offer an adequate supply

¹⁸ Because water affordability is specifically addressed by AB 685, this framework treats economic accessibility (interpreted as affordability) as a separate component, rather than as a part of accessibility. This is different than General Comment No. 15 on the Right to Water, by the Office of the United Nations High Commissioner for Human Rights (UN CESCR 2002).

of water based on the number of customers served or the storage capacity of its wells. A system with only one well is more vulnerable to a water outage than a system with dozens of wells, as the former has no additional supplies to draw on.

Institutional vulnerability refers to the technical, managerial and financial capacity of a water system to conduct the operations and maintenance needed to provide adequate water to customers. Institutional vulnerability is shaped, in part, by a water system's capacity to meet its water supply challenges. For example, a system that has low institutional capacity may not be able to adequately address water contamination because of technical or financial limitations.

Physical Vulnerability Subcomponent

Overview

The physical vulnerability subcomponent currently contains one indicator that measures system-related characteristics that can impede access to an adequate water supply. This indicator represents the potential vulnerability of a water system to water shortages or outages. This vulnerability exists on a daily basis, and becomes more severe during times of stress, such as periods of drought. Data permitting, future versions of this framework could build in additional measures of physical accessibility related to sufficiency and continuity of supply (See Appendix, Table A1).

Indicators



Water Accessibility Indicator 1: Physical Vulnerability to Water Outages

This indicator assesses how vulnerable a water system is to a supply outage (or shortage). It identifies a system's main water source type (e.g., groundwater, surface water, or combined groundwater-surface water), and how many permanent and backup sources a system can use in case of emergency. The indicator assumes that groundwater-reliant systems with fewer wells are more vulnerable to supply-based outages than either surface water systems with multiple intake points, or combined systems (i.e., systems with surface water and groundwater sources).

Institutional Vulnerability Subcomponent

Overview

The subcomponent of institutional vulnerability includes two indicators that measure the institutional characteristics of a system that can impede access to an adequate water supply. The first represents overall institutional capacity. The second represents managerial constraints. Broadly speaking, a system's overall institutional capacity is composed of its technical, managerial, and financial (TMF) capacity. TMF capacity plays a key role in a system's ability to undertake the operations and maintenance required to provide adequate water service. The state collects information on TMF capacity for a limited number of systems. Therefore, OEHHA is using the two indicators described below.



Indicators

Water Accessibility Indicator 2: Institutional Capacity

This indicator represents the overall institutional capacity of the water system. It uses a combination of information about a system's size and available economic resources to jointly define a system's TMF capacity. For example, larger systems have greater economies of scale that allow them to finance capital improvements. Systems with greater proportions of socioeconomically disadvantaged residents face additional financial constraints, as their customer base may be generally less financially able to contribute to necessary system upgrades.

Challenges and benefits due to size and socioeconomic status can mutually reinforce each other. For example, a small system that serves a more socioeconomically disadvantaged population is assumed to have less institutional capacity than a small system that serves an affluent population. In the same vein, a system that is large and serves a disadvantaged population presumably benefits from economies of scale to overcome some of the population's economic disadvantages. Thus, a population's disadvantaged status can amplify the limitations faced by small systems with smaller customer bases.

To characterize system size, this indicator draws on data on the number of service connections. To characterize socioeconomic status, it uses state definitions of disadvantaged and severely disadvantaged communities. The term disadvantaged community (DAC) has multiple definitions. For drinking water applications, it is defined by the State of California as a community with an annual Median Household Income (MHI) that is less than 80 percent of the statewide MHI (Public Resources Code section 75005[g]). A severely disadvantaged community (SDAC) is a community with less than 60 percent the statewide MHI. According to US Census

American Community Survey (ACS) 5-Year Data for 2011-2015, the statewide MHI was \$61,818; hence, the calculated income threshold is \$49,454 for DACs, and \$37,091 for SDACs.



Water Accessibility Indicator 3: Managerial Constraints

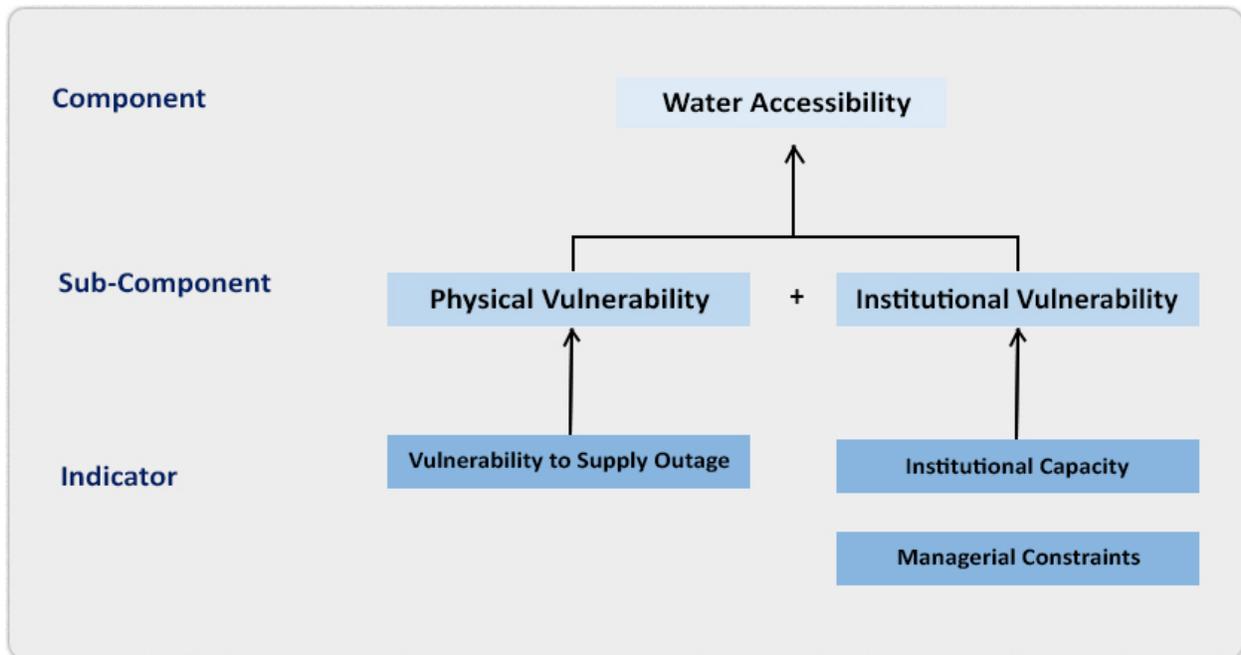
The managerial accessibility indicator represents potential managerial constraints. The managerial capacity of a water system depends on various factors, such as a water system's number and type of staff, and the training level of its staff. Because this data is not readily available for all water systems, OEHHA worked with the State Water Board's Division of Drinking Water to identify an indicator that could show managerial constraints in addressing contamination and/or maintaining adequate water supply. This represents a tally of the total monitoring and reporting violations that a water system receives. These violations assess the degree to which a water system complies with monitoring and reporting requirements for particular contaminants and treatment techniques.¹⁹

A Composite View of Water Accessibility

Individual water accessibility indicator scores can be combined to create a composite water accessibility score. This composite score can serve to highlight systems that have some of the lowest scores across all accessibility indicators, and are therefore the most burdened in the area of accessibility. Figure 6 is a conceptual representation showing how individual indicator scores could be combined to yield a composite water accessibility component score.

¹⁹ See Health and Safety Code section 60098 for more information.

Figure 6. Creation of composite water accessibility score.





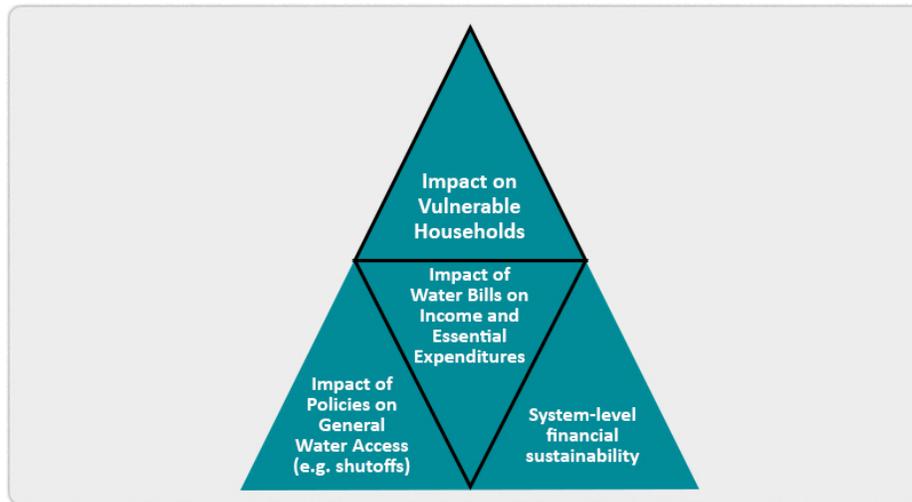
Component 3: Water Affordability

Water affordability typically refers to the direct and indirect costs of water charged to a household, relative to the household's income level. Measuring water affordability can also help inform how these costs affect the attainment of households' other basic needs (e.g., housing or food). To address issues of non-discrimination and equity, most approaches to evaluating water affordability emphasize that water should be affordable to the most vulnerable populations, and that users should be free from unnecessary disconnections (UN CESCR 2002).

Figure 7 summarizes the concepts that commonly comprise affordability considerations, and highlight the two areas of affordability that form the main focus of this framework.²⁰ In particular, the current framework focuses on the impact of water bills on income and essential expenditures, as well as the impact of water bills on vulnerable households. While financial sustainability is a key aspect of affordability, and is indirectly considered in the first of the framework's three affordability indicators (see Appendix B1), the framework does not speak directly to a system's financial sustainability. Similarly, assessing the impact of water system policies on water access (e.g., shutoffs) is related to affordability. However, the framework does not currently measure such factors (see Appendix A for future potential indicators).

²⁰ Water customers' ability to pay for water is a central consideration in achieving the human right to water. Yet part of keeping water affordable means ensuring that the financial capacity of water systems is sustainable. This can ensure that revenue streams and their management are adequate to cover ongoing infrastructure maintenance and capital costs, and can prevent sudden and even catastrophic loss of drinking water when critical infrastructures fail. See, for example Davis and Teodoro (2014), OECD (2010), and US EPA (1998: 12-18). These aspects are currently captured by the institutional capacity indicator of the accessibility section.

Figure 7. Core aspects of affordability. Triangles highlighted in black indicate areas that this framework focuses on.



Historically, the US EPA has used conventional affordability ratios to measure the impact of a water system’s average water bill on a household earning the median household income (US EPA 1998). The conventional affordability ratio is an indicator used primarily to screen water systems for affordability challenges. Water is understood to be unaffordable if water bills exceed a pre-established percentage of median household income (see Box 1: What is an affordability ratio?). Concerns about the adequacy of this approach have resulted in extensive discussions about best practices, and about the limitations of the conventional affordability ratio approach (see Appendix B1 for a more detailed discussion).

Building on this rich discussion, this framework uses three affordability indicators to measure affordability at the water system level (Goddard et al. 2019).²¹ Unlike the Water Quality and Water Accessibility components outlined above, the Affordability Component has no subcomponents.

Box 1: What is an affordability ratio?

An affordability ratio captures the impact of a water bill on a household’s income. In its most generic form, this ratio typically consists of a water bill at a specified volume of water divided by an income level. The resulting ratio is meant to capture the fraction of a household’s income that is spent on water bills. Typically, the affordability ratio is reviewed against a threshold to determine whether water bills are or are not affordable.

Conventional affordability ratios may simply use average water costs divided by a region’s median household income level. However, these ratios have limitations. Ideally, the figure used for household income should represent total household income minus other essential expenditures (such as housing and food), so that basic expenditures are not in conflict with one another.

Indeed, improved affordability ratios specify the water cost for a particular volume of water, and aim to measure disposable income minus other essential expenditures.

²¹ Data limitations often make it hard to generate fine-scale data about affordability at the household level (including, for example, information about a specific household’s water bills and income level). Therefore, indicators that screen for potential household concerns are often developed at larger geographic scales (for example, at the water system or census-tract scale).

Indicators



Affordability Indicator 1: Affordability ratio for the Median Household Income level (AR_{MHI})

The first affordability indicator is an affordability ratio based on the median household income level of the customers of each system (AR_{MHI}). AR_{MHI} improves upon the US EPA's CAR approach in several ways (see Appendix B1), and takes into account data availability issues. First, AR_{MHI} is evaluated using water bills for an essential minimum water volume of 600 cubic feet (or 6 Hundred Cubic Feet [HCF]). This amount of 6 HCF equates to approximately 150 gallons per household per day.²² As such, the amount of 6 HCF falls within the range of basic needs water consumption for California, while aligning with the state's water conservation goals.²³ Even so, it is important to note that some households may require higher water use. For example, households with pregnant women or people with illnesses or disabilities may require more than 6 HCF per month. Similarly, households in different regions of the state may require more water due to climate and livelihood considerations.

An affordability ratio using the median income level indicates the water bill burden for households at the 50th percentile of the income distribution in a water system. Thus, if water bills are high for households at the median income level, affordability ratios for the median household income may indicate that: 1) water is unaffordable for at least 50 percent of households in a water system; and/or 2) the water system's financial capacity is at risk for being unsustainable, since household affordability and system financial capacity are interrelated.

AR_{MHI} is therefore calculated as:

$$AR_{mhi} = \frac{\text{Systemwide Average Bill for 6 HCF/Month} \times 12 \text{ Months}}{\text{Annual Median Household Income of Water System}}$$

²² This is equivalent to 50 gallons per person per day in a three-person household, or 38 gallons per person per day in a four-person household. The average household size in California in 2015 was 2.9 persons per household.

²³ Gleick (1996) proposes a basic water requirement of 50 liters per capita per day (13 gallons). This is equivalent to 150 liters (39.6 gallons) for a three-person household and 200 liters (52.8 gallons) for a four-person household. Gleick's study presents a range of 57-165 liters per capita per day (15-45.6 gallons), depending on the region, technological efficiencies, and cultural norms. Feinstein (2018) recommends evaluating water affordability in California using a measure of 43 gallons per capita per day, equivalent to 129 gallons per three-person household and 172 gallons per four-person household. A provisional standard of 55 gallons per capita per day is identified in California Water Code section 10608.2 for indoor water use for urban water suppliers who are aiming to reduce water demand.



Affordability Indicator 2: Affordability ratio for the County Poverty Threshold (AR_{CPT})

The second affordability indicator used here is an affordability ratio based on the county poverty income level, which OEHHA refers to as the “county poverty threshold” (AR_{CPT}). AR_{MHI} provides a snapshot of affordability challenges at the median income level. However, the scholarly literature on affordability demonstrates that, when used alone, AR_{MHI} is insufficient to capture affordability challenges for the most vulnerable households.

Indeed, established human right to water frameworks make a point of emphasizing that assessing affordability also means considering issues of equity. This means that more vulnerable households and individuals should be expressly considered with regard to their ability to pay for water.²⁴ Using the median income level alone will not necessarily provide information on the affordability of water for lower-income households: thus, affordability analyses should explicitly consider lower-income levels. Following this logic, the second indicator used here measures the impact of water bills on households at a specified poverty level.

In developing this indicator, OEHHA evaluated several existing datasets and measures of poverty. OEHHA selected the county poverty income thresholds

Box 2: Affordability Considerations: What is in a Water Bill?

Water bills are most frequently used to represent total water costs, where data on indirect or replacement costs does not exist. However, water bills cannot fully capture the cost of water in cases where households pay for bottled water (costs referred to as replacement costs). They do not always include wastewater costs. Nor do they account for the water costs faced by persons experiencing homelessness. Furthermore, water bills do not always incorporate long-term infrastructure and maintenance costs.

The contractual relationship between renters and homeowners represents another challenge. Water bills are often received by homeowners, who pay their water bills directly, or pass them on to tenants. In theory, the cost transferred from the homeowner to the renter should be proportional to a renter’s water use. As water bills are most often included in rent, however, the relationship between what renters should pay for water and what they actually pay is not generally metered or documented.

As a result, the use of water bills to gauge water affordability may underestimate or overestimate how much renters actually pay for water. The indicators in this report thus do not currently directly consider affordability for renters, who may or may not be paying utilities directly.

²⁴ General Comment No. 15 on the Right to Water, by the Office of the United Nations High Commissioner for Human Rights, notes that equity considerations regarding affordability “demand that poorer households should not be disproportionately burdened with water expenses as compared to richer households.” (UN CESCR 2002: 9).

Box 3: High Cost of Living Considerations

A household's ability to pay for water largely hinges on its disposable income, or its total income minus taxes, and the cost of other non-water essential expenditures. Ideally, the disposable income value that is used to calculate an affordability ratio would reflect disposable income minus non-water essential expenditures. This would allow a household's water bill to be compared to its remaining disposable income (discretionary income) without infringing on other basic needs such as shelter.

In California, the high cost of living, along with regional variations in housing prices, substantially influences the amount of income available to households to pay for water. For example, two households may pay the same water bill and have the same income level. However, the household in a region with a high cost of living will have less discretionary income to allot to its water bill than the household in a region with a low cost of living, increasing the former's affordability challenges.

Measuring affordability challenges while taking into account these significant income/cost variations is critical. Thus, the denominator used for Affordability Indicators 2 and 3 reflects cost-of-living adjustments. However, the variation in housing costs may also occur intra-county, which this measure does not account for.

calculated by the Public Policy Institute of California (PPIC) for data on poverty income levels (Bohn et al. 2013).²⁵ In particular, the PPIC calculates county poverty income thresholds building on the approach of the US Census. These thresholds use data on the expenditures needed for a family of four to stay out of poverty within a given county (for more information, see Appendix B2).

The PPIC thresholds offer two important advantages over other approaches that were considered. First, the income levels identified by each PPIC county poverty income threshold represent *disposable* income (i.e., income after taxes)—rather than gross income—for poverty-level households (Sawkins and Dickie 2005; Teodoro 2018).²⁶ Second, the PPIC's thresholds explicitly account for differences in housing costs across counties in California, thus including a key driver of differential household expenditures across the state.²⁷ For the purposes of this framework, OEHHA adopts the term "county poverty threshold" (CPT) to refer to PPIC's county poverty

income thresholds.

²⁵ The PPIC uses these county poverty thresholds to calculate its California Poverty Measure (CPM), and thus refers to these as CPM thresholds. OEHHA uses the actual county poverty thresholds in its affordability indicators, and thus refers to these as county poverty thresholds (CPT) (Bohn et al. 2013).

²⁶ Other studies have explored alternate metrics for poverty-level affordability ratios. For example, some evaluate affordability at the 20th percentile with discretionary income (Teodoro 2018) or evaluate affordability at every income decile (Sawkins and Dickie 2005). Alternative sources for poverty-level data include area income estimates produced by the Housing and Urban Development, as recommended in the recent Pacific Institute report (Feinstein 2018), for example. Using this data would be the equivalent of using low-income data from the Housing and Community Urban Development office in California.

This affordability ratio at the county poverty threshold (AR_{CPT}) is calculated as:

$$AR_{CPT} = \frac{\textit{Systemwide Average Bill for 6 HCF/Month} \times \textit{12 Months}}{\textit{County Poverty Threshold for Water System's County}}$$

It is important to note that the affordability ratio at the county poverty threshold represents the income of individual households within that county *only* if they are at or near the county poverty threshold level. For example, a particular system may have 1% of its households living at the poverty level. In this case, this ratio would only apply to 1% of households. Accordingly, this proposed framework and tool will consider AR_{CPT} in conjunction with information on the percentage of households within a water system that are at or below the California county poverty threshold.



Affordability Indicator 3: Affordability ratio for the deep poverty threshold (AR_{DP})

Analyzing affordability challenges for households living at the county poverty threshold offers information about one subset of vulnerable households. However, in many communities, an even deeper level of poverty exists, presenting an even greater vulnerability challenge. Thus, OEHHA uses a third indicator for some of the most vulnerable households: an affordability ratio for households in deep poverty (AR_{DP}).²⁸ Here, deep poverty is defined as being at half the county poverty-level income, based on the PPIC county poverty thresholds used in Affordability Indicator 2.

The affordability ratio at the Deep Poverty threshold (AR_{DP}) is calculated as:

$$AR_{DP} = \frac{\textit{Systemwide Average Bill for 6 HCF/Month} \times \textit{12 Months}}{\frac{1}{2} \times \textit{County Poverty Threshold for Water System's County}}$$

As with AR_{CPT} , affordability ratios at the Deep Poverty level (AR_{DP}) do not reflect the *actual* affordability ratio for a water system's households, unless households are at or near the Deep Poverty level. As such, this ratio will be considered in conjunction with a measure of the percentage of households that live at or below the deep poverty level within a water system.²⁹

²⁸ It is worth noting that even measuring deep poverty levels does not necessarily capture the poverty faced by people experiencing homelessness, or families facing seasonal, temporary, inconsistent work, or other conditions that result in extreme poverty levels.

²⁹ Households in deep poverty likely face affordability challenges across a range of essential needs. Research into trade-offs among water bills and other essential expenditures is scarce, but two recent studies suggests that households facing unaffordable water will forgo housing and health-related bills to pay for water (Cory and Taylor 2018; Rockowitz et al. 2018).

Threshold Selection

Research and information on the value of different thresholds is inadequate, making it hard to choose a specific threshold (NAPA 2017). Therefore, the present framework does not select a specific threshold against which affordability ratios are determined to be “unaffordable.” As such, this framework will consider affordability/non-affordability along a spectrum rather than as a binary phenomenon tied to a specific threshold.

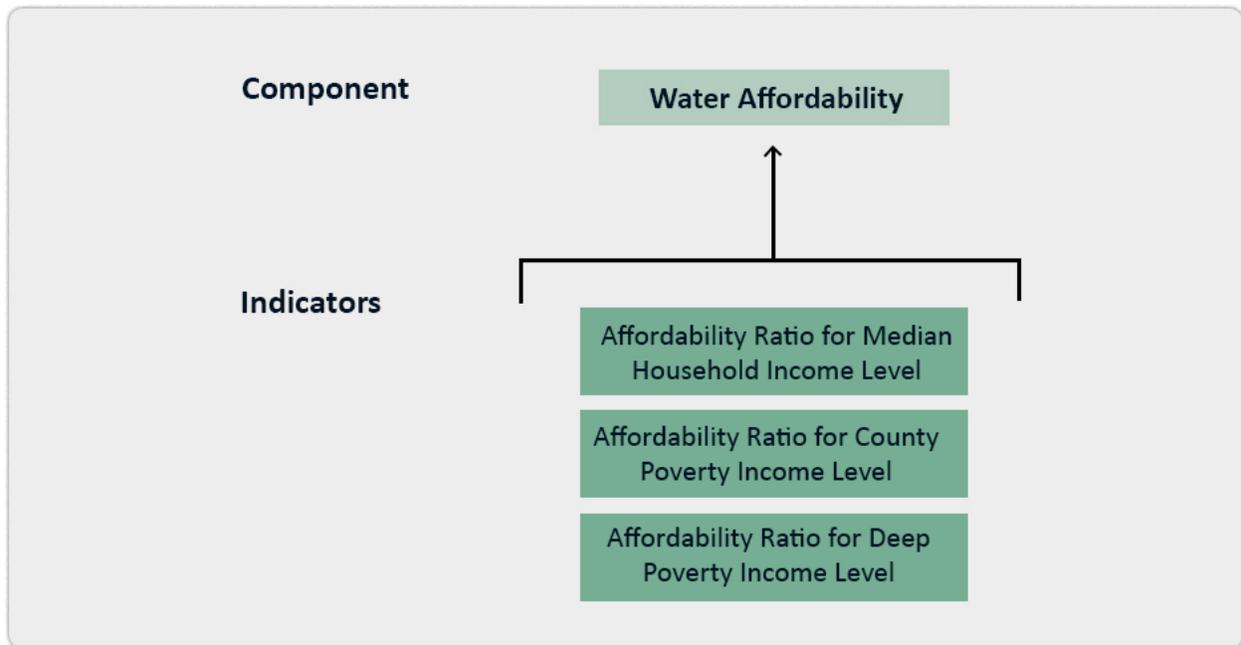
As new insights into affordability thresholds becomes available, OEHHA could update this approach for all or some of the indicators. For example, AR_{CPT} and AR_{DP} best approximate the affordability of water relative to disposable income for households at low-income levels. For these two indicators, for example, a higher range of thresholds may be more appropriate than the range of thresholds used for the affordability ratio at the median income level (Feinstein 2018; Teodoro 2018).

A Composite View of Water Affordability

Individual water affordability indicators can be combined to create a composite water affordability score. Unlike the AR_{MHI} , which is an affordability ratio estimated for the 50th percentile of the population, the affordability ratios for households living at the county poverty income level and/or the deep poverty income level do not capture what percentage of households live at or below the income threshold level.

The composite affordability ratio will account for the percentage of households at or below each income threshold level, alongside information on affordability ratios. Figure 8 is a conceptual representation showing how individual indicator scores could be combined to yield a composite water accessibility component score.

Figure 8. Creation of a composite water affordability score.





A Holistic View of Water Systems: Applications and Cases

Applications

This framework becomes a tool when it is populated with data, and once its indicators and components receive scores. Results can then be used in four main ways, at the water system or statewide level:

- To assess outcomes for particular indicators.
- To assess a particular component (e.g., water quality).
- To compare measures of water quality, accessibility, and affordability at the system level.
- To track and update progress in achieving the overall human right to water.

The tool offers a holistic view of a wide variety of information sources and community challenges. It can be useful to regulators, policy-makers, water system operators, and members of the public, who may approach water issues in different ways and with different concerns, effectively making our state more collectively equipped to understand and face its water challenges.

For example, regulators or water system operators may have information on the status of compliance for a particular water system. The tool can augment this understanding in several ways. First, the tool provides additional water quality information, such as exposure metrics. This can help decision-makers consider potential exposure threats *alongside* compliance challenges. Similarly, system operators and water planners can utilize previously unquantified metrics, such as those that measure affordability challenges, in order to weigh the needs and stresses of individual communities in their decision-making. Additionally, by viewing information across the three principal framework components, those who oversee water systems can consider disparate but interrelated characteristics of water delivery and water service that are not usually considered in tandem.

As for members of the public, including community groups and community members already deeply engaged in water issues, this tool can provide a useful, consolidated source for information across issues, regions, and time periods. For community members who may currently lack access to technical information, this tool offers a useful way to access, decipher and visualize the information they need to make decisions.

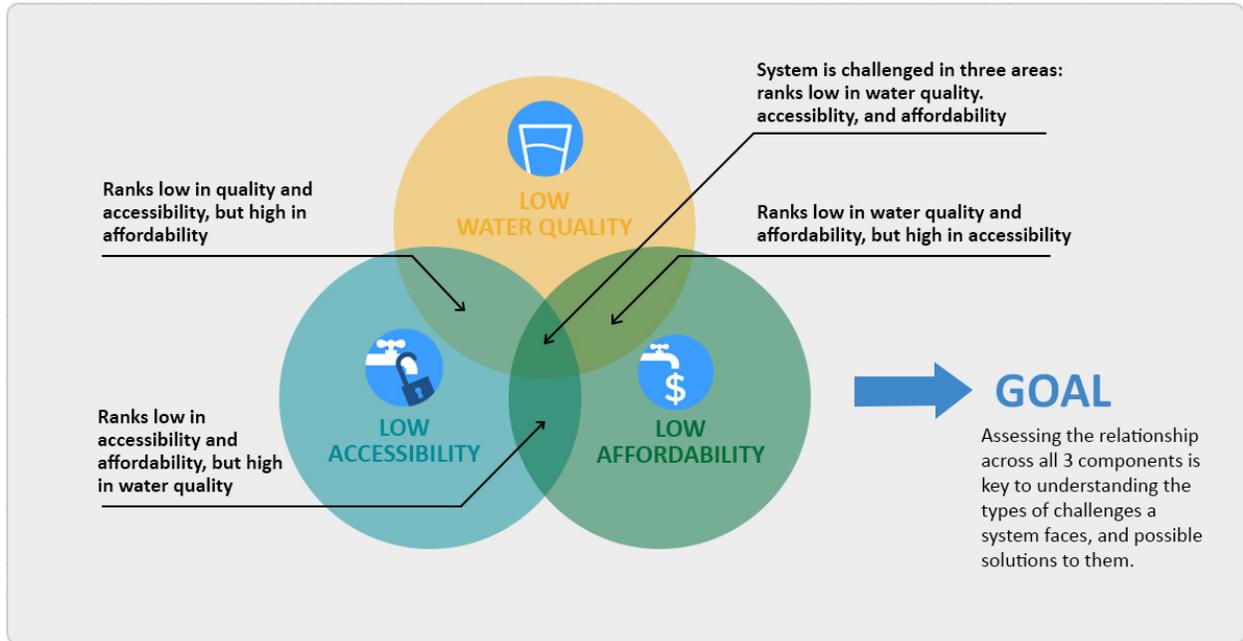
Finally, this tool allows for regional and statewide assessments of key trends across components. Previous initiatives have documented particular water challenges across the state, as well as a wide variety of challenges in particular regions. This tool, however, brings together information across water components, allowing the state and its residents to gain a holistic understanding of big-picture trends. In doing so, the tool may help Californians achieve the human right to water in a more consistent, equitable way.

The tool's usefulness is best underscored by Figure 9. Building on Figure 3, at page 8, the three framework components are shown in circles and are described as types of challenges: low water quality, low accessibility, and/or low affordability. Water systems may face one or more—or even all three—of these challenges, and these challenges may overlap with and even reinforce each other.

Figure 9 emphasizes the tool's ability to compare a water system's performance across several components. This can be particularly valuable in helping decision-makers or members of the public assess when there are combinations of quality, accessibility and affordability challenges. For example, a decision-maker or member of the public may start by asking: which systems show particular types of water quality challenges, or which systems face affordability challenges? Using this tool, they can now ask: which systems face *both* affordability challenges *and* water quality challenges; or which systems enjoy good water quality, but face threats to accessibility? It remains worth mentioning, as noted above, in the section *A Holistic View of Water Challenges*, that the information associated with each of the three components on its own, remains instructive and useful to inform local and state policies that can best address particular water challenges related to any single characteristic of water system service and delivery.

This section provides examples of the types of information the proposed framework and tool could help generate, and shows how multiple, overlapping challenges can be identified. Assessing and understanding these combined challenges is critical for devising relevant, sustainable and equitable solutions to the provision of water statewide.

Figure 9. Diagram of the three components in the proposed framework and tool, and the combinations of challenges a water system may face.



Hypothetical Case Studies

Water systems in the state operate under diverse sets of conditions, and face a range of water challenges. This section presents three hypothetical cases to show how the tool could function to understand these conditions. Ultimately, as these cases highlight, the framework allows for an assessment of crosscutting issues, at multiple levels (e.g., at the indicator, subcomponent or component level).³⁰

Hypothetical System A: Here, a system faces challenges in all three components. Water quality, accessibility and affordability are all low.

This hypothetical small water system is located in a rural agricultural region, has fewer than 200 service connections, and serves 500 people. The median household income is \$40,000. The system has one groundwater well and no backup sources. On average, water bills for 6 Hundred Cubic Feet (HCF) in this community are \$65 per month, or \$780 per year.

From 2008 to 2016, the system faced a number of **water quality** challenges. Exposure levels were high and the system faced a number of compliance hurdles. In particular, during the nine-year time period, the system had average concentration levels of nitrate between 45 and 65 mg/L in eight of the nine years. As the MCL for nitrate is 45 mg/L, this information indicates that potential exposure was high (i.e., concentration levels exceeded the MCL), and the duration of high potential exposure was long. During this time period, the system also received at least one nitrate MCL violation in eight of the nine years. Thus, the duration of the non-compliance period was also long. All data requirements were met.

Regarding **accessibility**, with only one groundwater well, the system is considered to be physically vulnerable to water outages. As a small system serving a predominantly economically disadvantaged community, it is estimated to have relatively low institutional capacity. It had ten monitoring and reporting violations, indicating potential challenges with managerial capacity.

With regard to **affordability**, residents served by the system also face a number of challenges. A household earning the median income level would be spending two percent of its income on water. This is nearly double what research has determined is the average spent on water in industrialized countries (Smets 2017) and 0.5 percent higher than the threshold used to guide financial assistance to DACs in the State Drinking Water Revolving Fund. Households living at the county poverty level of \$24,151 would pay 3.2 percent of their income (\$780/\$24,151) on water. Those living in deep poverty (\$12,075) would spend nearly 6.5% of their income on water. Because 20 percent of this water system's population lives at or below the county poverty threshold, a significant portion of economically vulnerable residents living in the community are particularly vulnerable to affordability challenges. Figure 10 depicts indicator

³⁰ In this report, we focus on the overall component outcome, rather than subcomponent outcomes.

results for each of the framework’s indicators. Table 2 further serves to summarize the key information the tool can provide.

As described above, the results for nearly all indicators provided in the tool signal that this system faces serious challenges. However, how is one to use this information? To begin, the decision-maker may be interested in comparing this system to others to determine whether this is a system with relatively large or average challenges. Doing so could assist the decision-maker in determining what types of solutions might benefit the water system, whether to allocate resources (e.g., training and capacity building, technical decision-making support, or financial support), and what types of resources might be best suited to address the system’s needs.

Second, the benefit of viewing information specific to each component, and across components, is that when the decision-maker devises solutions to these challenges, she or he may need to carefully assess trade-offs. For example, it could prove critical to address the fact that System A has had on-going water quality problems for an acute contaminant such as nitrate. The community served by the system may need to consider developing a new well, an intertie with a nearby system, or a treatment facility. However, such solutions could potentially increase the cost of delivering water. Since affordability is already a challenge for households served by this system, a sustainable and equitable solution would need to address the challenges described in all three component areas, including affordability.

Figure 10. Chart summarizing case study results. The rows show the results for each of the three hypothetical water systems. The columns represent the 13 indicators in the three components. The color of each box indicates the level of concern regarding a specific indicator. Dark blue boxes represent greater concern. Medium-blue boxes indicate a more moderate level of concern, and light blue boxes little to no concern.

Indicator	Water Quality							Accessibility			Affordability		
	 1	 2	 3	 4	 5	 6	 7	 1	 2	 3	 1	 2	 3
System A	Dark Blue	Dark Blue	Medium Blue	Light Blue	Medium Blue	Light Blue	Light Blue	Dark Blue	Dark Blue	Dark Blue	Medium Blue	Medium Blue	Dark Blue
System B	Medium Blue	Medium Blue	Dark Blue	Light Blue	Medium Blue	Medium Blue	Dark Blue	Light Blue	Dark Blue	Light Blue	Light Blue	Medium Blue	Dark Blue
System C	Light Blue	Medium Blue	Light Blue	Medium Blue	Dark Blue	Dark Blue							

Table 2. Summary table for Hypothetical System A. This chart provides an example of how information can be translated into a clearly legible diagram, accessible to all kinds of stakeholders.

Water challenges in all three components.		
Water Quality	 Potential high exposure	Eight years of potentially high exposure levels of nitrate, averaging between 45-65 mg/L.
	 Presence of acute contaminants	Yes: nitrate.
	 Maximum duration of potential high exposure	Eight years of high nitrate levels.
	 Data availability	The system has monitoring data for all contaminants.
	 Non-compliance with primary drinking water standards	During the nine-year study period, the system had one or more MCL violations in eight of the nine years.
	 Presence of acute contaminants in non-compliance	Yes: nitrate.
	 Maximum duration of non-compliance	Eight years of nitrate MCL violations.
Water Accessibility	 Physical vulnerability to water outages	One groundwater well.
	 Institutional capacity	Small, disadvantaged community.
	 Managerial constraints	The system had no monitoring and reporting violations.
Water Affordability	 Affordability ratio at the median household income	2%
	 Affordability ratio at the county poverty threshold	3.2%. Here, 20% of the population lives at or below the county poverty income level.
	 Affordability ratio at the deep poverty threshold	6.5%

Hypothetical System B: Here, a system faces some challenges in water quality and accessibility, but the key challenge lies in affordability.

This mid-sized hypothetical system, serving roughly 3,300 residents, is located in a rural, non-agricultural region of the state. The system has four groundwater sources and two surface water intakes. Median household income is \$39,000. Average water bills for 6 HCF of water are \$55 per month, or \$660 per year. From 2008 to 2016, the water system received notification of on-going total coliform violations, with TCR MCL violations in six of the nine years. All data requirements were met.

With regard to **accessibility**, the indicators do not signal major accessibility challenges, other than those stemming from the system's classification as one that serves a disadvantaged community.

However, with regard to **affordability**, the residents who are served by the system face key challenges. The county poverty level is \$25,361. Nearly 30 percent of the residents served by this water system live at or below this level. Nearly five percent of residents live at or below the deep poverty level of \$12,680. Thus, while the affordability ratio for households at the median income level is 1.7 percent ($\$660/\$39,000$), the affordability ratio for households living at or below the county poverty level is significantly higher (2.6 percent), and is even higher for those living in deep poverty level (5.2 percent).

These affordability results highlight the usefulness of having multiple affordability indicators. In this case, while the affordability ratio at the median household income may not signal a major concern, the presence of a large proportion of residents who live at or below the poverty level indicates that there are pressing affordability challenges that might otherwise be missed.

As with System A, Figure 9 highlights the indicators that show key challenges in this system. A decision-maker assessing System B would likely want to address the ongoing TCR violations. However, the most urgent area of focus may be affordability challenges. At least 50 percent of households spend 1.7 percent or less of their income on water bills. Thirty percent or more of households face more acute affordability challenges, making them some of the most economically vulnerable residents served by the system.

Hypothetical System C: Here, a system has relatively high water quality and accessibility, but relatively low affordability.

The third hypothetical system, System C, is located in an urban county and serves nearly 30,000 people. The median household income in this community is \$42,100. The system has over ten groundwater wells and one surface water intake. The average water bill for 6 HCF is \$85 per month, or \$1020 per year.

This system has had no **water quality** challenges in the time period, and has relatively strong **accessibility**, based on the framework's current indicators. The main challenge for this system is with regard to **affordability**.

At least 50 percent of the households served by this water system are paying approximately 2.4 percent of their income on water. Ten percent of the community's households earn income levels at or below the county poverty income level of \$33,493. Thus, these households pay 3 percent of their income on water. While less than 0.5 percent of households in the community earn incomes at or below the deep poverty level of \$16,746, these households pay 6.1 percent of their income on water.

These three affordability indicators highlight different affordability challenges. The affordability ratio for the median household income shows that the majority of the system's households (i.e. 50%) face considerable affordability challenges, given the typical affordability thresholds used. At least ten percent of the households served by the water system are economically vulnerable and face special hardship in paying their water bills. While only a small fraction of households pay 6.1 percent or more of their income for water, these are the most vulnerable households, whose cases need to be considered by planners and decision-makers.

Strategies to address the affordability challenges of this system should be explored with care. The fact that water quality and accessibility are high could be a function of the fact that water bills adequately cover the technical, managerial, and financial needs of the system. A simple decrease in rates could potentially compromise the system's high water quality. The tool helps highlight the need to balance decisions that impact one component, with potential consequences affecting other components.

Summary

In summary, these cases show how the framework—once populated with information—can become a tool that can be used by state agencies, water system operators and members of the public to understand the challenges that individual water systems may face, and help them move toward identifying technical solutions. These system-level results can also be used to provide state-level understanding of general progress in achieving the human right to water across water systems. For example, when users view the results in combination, they can assess overall trends across water systems in each of the three components. When these results are assessed over time (e.g., beyond the 2016 time period), users could gain a holistic picture of evolving patterns in any one component, or across all three.

In sum, this framework and tool allow users to:

- Evaluate California's progress toward ensuring accessible, safe, and affordable drinking water in community water systems.
- Identify which indicators and components pose significant challenges for a given water system.
- Access information that that can help lead to potential technical solutions to challenges or combinations of challenges in a particular system.

- Identify particular types of needs for support and assistance that water systems may have.
- Quantify overall trends across the state and/or regions to gain a picture of the overall level of challenge in one or more components.

Conclusions and Next Steps

The proposed framework and tool are intended to help shape efforts to assess the delivery of clean, safe, accessible and affordable water throughout the state. Together, they offer an additional way for the State Water Board and other agencies to identify communities that may face a variety of water burdens. Ultimately, this framework and tool enable a flexible, versatile, and adaptable approach to measuring how the human right to water is being realized in various contexts and time periods.

The strength of this tool lies precisely in its holistic and versatile approach. Indeed, the tool produces system-level or indicator-specific results for specific components. Thus, a user wishing to obtain an overall sense of water issues on a state or regional level can view the results across the tool's three components, while also exploring system-level specifics at the individual component or indicator level.

Depicting information in this way can enable decision-makers to ask new and probing questions about California communities and the water that sustains them. Which systems face water quality and affordability challenges? Which systems have low water quality, but perform well in other ways? What accounts for this unevenness, and how can it be addressed? How do these systems fare over time, and why? The ability to ask these questions will allow decision-makers to better tailor their approach to delivering clean, safe, affordable and accessible water to communities across the state. As a result, the tool can be used in conjunction with specific compliance information to help focus attention on water systems that are most in need.

Several next steps will be taken as part of this project. OEHHA will solicit public feedback on this framework report, and then release a draft tool with demonstration results, drawing on the framework. The results of this tool will inform our general understanding of water access across the state, and will provide valuable information for other state efforts, such as the State Water Board's assessment of needs for the state's water systems. With time, and data permitting, OEHHA will continue to refine this framework and tool to offer the most comprehensive view of water provision possible.

APPENDICES

Appendix A: Future indicators under consideration

The indicators in this framework were selected based on two main factors: the indicators' relevance for measuring the three water components of quality, accessibility and affordability; and the availability of high-quality statewide data that could be plausibly incorporated into OEHHA's first phase of work. Future versions could be adapted to include additional indicators for which high-quality statewide data may not be available currently. These are described in Table A1.

Appendix Table A1. Potential indicators or units of analysis for consideration in future versions of the proposed framework and tool.

Components or Units of Analysis	Potential Indicators
<i>Water Quality</i>	<ul style="list-style-type: none"> • Average potential contaminant exposure to secondary contaminants • Violations of Maximum Contaminant Levels (MCLs) for secondary contaminants • Relative toxicity of contaminants
<i>Water Accessibility</i>	<ul style="list-style-type: none"> • Amount of water available to customers • Average/median water use of water utility per customer • Total source capacity of system; total source capacity per capita • Vulnerability to climate change and/or drought • Drought-impacted systems • Applications for emergency interim solutions/drought funding • Reporting of supply shortages • Availability of alternative sources of water (e.g., proximity to vended water) • Service interruptions • Moratorium on service connections • Degree of reliance on purchased water sources

Components or Units of Analysis	Potential Indicators
<i>Water Affordability</i>	<ul style="list-style-type: none"> • Water affordability ratios disaggregated by demographic characteristics of people served by water systems • Water affordability including replacement costs (for bottled water) • Water affordability including sanitation costs • Water shutoffs
<i>Additional Groups or Units of Analysis or Topics to Consider</i>	<ul style="list-style-type: none"> • Sanitation • Private domestic wells • Schools • Populations experiencing homelessness

Appendix B: Affordability Considerations

B1. Critiques of Conventional Affordability Ratios

As noted in the main report, the proposed framework and tool go beyond conventional affordability ratios (CAR) to produce three improved affordability ratios (see Box 1 for a definition of an affordability ratio). This section provides additional background on the use of CARs, and on how and why they might be improved.

Historically, the US EPA has calculated affordability ratios (which it terms Residential Indicators) at the median income level to assess: 1) household affordability for the so-called average household; and 2) water system-level financial capacity, i.e., a water system's ability to access revenue for operations, maintenance, and new capital projects.

Four primary criticisms have emerged regarding the US EPA's Residential Indicator. First, measuring water affordability at the median income level does not capture the unaffordability challenges faced by households below the median income level. Second, using average water volumes to assess affordability may lead to erroneously characterizing over-consumption (e.g., landscaping with drinking water) as unaffordable, or labeling under-consumption (e.g., self-rationing) as affordable (Gawel et al. 2013; Kessides et al. 2009). Thirdly, some critics have noted that pre-existing thresholds that are used to determine what counts as affordable may be too high or not fully justified (NAPA 2017). Finally, without precise data on essential expenditures, data about gross income can lead one to overlook the trade-offs that many households may be forced to make among essential expenditures (Cory and Taylor 2018).

B2. The Public Policy Institute of California's County Poverty Measure

OEHHA uses the PPIC's poverty metric as the basis for two of its affordability indicators. This metric reflects a so-called basic needs budget. This is based on data on expenditures needed for a family of four to stay out of poverty within a given county. The metric builds on the approach of the US Census for tracking poverty by explicitly accounting for variations in California's cost of living across counties.³¹ However, the PPIC poverty thresholds do not capture intra-county or intra-system variation in poverty levels and cost of living.³²

³¹ PPIC County Poverty Thresholds (CPT) are based on the average of 33rd and 36th percentile of national expenditures on food, clothing, shelter, and utilities, multiplied by 1.2 to account for 'key spending' for a family of four. These expenditures are then adjusted by county by multiplying the shelter and utilities portion of the threshold by the difference in housing costs between each county and national level costs. PPIC uses a dual index to adjust housing costs based on the proportion of renters and homeowners within each county. Of California's 58 counties, 38 have unique poverty thresholds, while the remaining 20 are grouped into three groups with equal thresholds due to census suppression criteria.

³² As data with higher-scale resolution of in-county differences in cost of living becomes available, OEHHA will consider updating this indicator.

WORKS CITED

- Assembly Bill No. 401. 2015, Dodd, Chapter 662, An act to add Section 189.5 to the Water Code, relating to low-income water rate assistance. Last consulted November 27, 2018: http://www.leginfo.ca.gov/pub/15-16/bill/asm/ab_0401-0450/ab_401_bill_20151009_chaptered.pdf
- Assembly Bill No. 685. 2012, Eng, Chapter 524, An act to add Section 106.3 to the Water Code, relating to water. Last consulted November 27, 2018: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB685
- Balazs C, Morello-Frosch R, Hubbard A, Ray I. 2011. Social disparities in nitrate-contaminated drinking water in California's San Joaquin Valley. *Environmental Health Perspectives* 119:1272-8.
- . 2012. Environmental justice implications of arsenic contamination in California's San Joaquin Valley: a cross-sectional, cluster-design examining exposure and compliance in community drinking water systems. *Environmental Health* 11:84.
- Bohn S, Danielson C, Levin M, Mattingly M, Wimer C. 2013. *The California Poverty Measure: A New Look at the Social Safety Net*. October 2013. San Francisco: Public Policy Institute of California. Last consulted November 27, 2018: http://www.ppic.org/content/pubs/report/R_1013SBR.pdf
- Christian-Smith J, Balazs C, Heberger M, Longley K. 2013. *Assessing Water Affordability: A Pilot Study in Two Regions of California*. August 2013. Oakland: Pacific Institute. Last consulted November 27, 2018: <http://pacinst.org/wp-content/uploads/2013/08/assessing-water-affordability.pdf>
- Cory D, Taylor L. 2018. On the distributional implications of safe drinking water standards. *Journal of Benefit-Cost Analysis* 8:49-90.
- Davis J, Teodoro MP. 2014. *Financial Capability and Affordability*. In: *Water and Wastewater Finances and Pricing: The Changing Landscape*, 4th ed. (Rafetelis GA, ed): CRC Press/IWA Publishing.
- Feinstein L. 2018. *Measuring Progress Toward Universal Access to Water and Sanitation in California. Defining Goals, Indicators, and Performance Measures*. September 2018. Oakland, California: Pacific Institute. Last consulted November 27, 2018: http://pacinst.org/wp-content/uploads/2018/08/Measuring-Progress_Pacific-Institute_Sep-2018.pdf

- Gawel E, Sigel K, Bretschneider W. 2013. Affordability of water supply in Mongolia: empirical lessons for measuring affordability. *Water Policy* 15:19-42.
- Gleick P. 1996. Basic water requirements for human activities: meeting basic water needs. *Water International* 21:83-92.
- Goddard JJ, Ray I, Balazs CL. 2018. Assessing water affordability indicators and human right to water implications in California. Manuscript in preparation for publication.
- Hanak E, Gray B, Lund J, Mitchell D, Chappelle C, Fahlund A, et al. 2014. Paying for Water in California. March 2014. San Francisco: Public Policy Institute of California. Last consulted November 27, 2018: http://www.ppic.org/content/pubs/report/R_314EHR.pdf
- Harter T, Lund JR, Darby J, Fogg GE, Howitt R, Jessoe KK, et al. 2012. Addressing Nitrate in California's Drinking Water With a Focus on Tulare Lake Basin and Salinas Valley Groundwater. Report for the State Water Resources Control Board Report to the Legislature. March 2012. Center for Watershed Sciences. University of California, Davis. Last consulted December 10, 2018: <http://groundwaternitrate.ucdavis.edu/>
- Health and Safety Code. Division 104. California Safe Drinking Water Act. (*Article 1 added by Stats. 1995, Ch. 415, Sec. 6*) Article 1. Pure and Safe Drinking Water. Section 116275. Last consulted November 27, 2018: http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC§ionNum=116275
- Holst Jensen M, Villumsen M, Petersen TD. 2014. The AAAQ Framework and the Right to Water: International indicators for availability, accessibility, acceptability and quality. Copenhagen: The Danish Institute for Human Rights. Last consulted November 27, 2018: https://www.humanrights.dk/files/media/dokumenter/udgivelser/aaaq/aaaq_international_indicators_2014.pdf
- Kessides I, Miniaci R, Scarpa C, Valbonesi P. 2009. Toward defining and measuring the affordability of public utility services. Policy Research Working Paper 4915. Washington DC: World Bank.
- NAPA. 2017. National Academy of Public Administration. Developing a New Framework for Community Affordability of Clean Water Services. Report by a Panel of the NAPA for the US Environmental Protection Agency. October 2017. Last consulted November 27, 2018: https://www.napawash.org/uploads/Academy_Studies/NAPA_EPA_FINAL_REPORT_110117.pdf
- OECD. 2010. Organisation for Economic Co-operation and Development. Pricing Water Resources and Water and Sanitation Services. Paris: OECD Publishing. Last consulted November 27, 2018: <https://www.oecd-ilibrary.org/content/publication/9789264083608-en>
- OEHHA. 2017. Office of Environmental Health Hazard Assessment. Methodology for a Statewide Drinking Water Contaminant Indicator. CalEnviroScreen 3.0. January 2017. Last

consulted November 27, 2018:

<https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3dwm methodology.pdf>

Pierce G, McCann H, DeShazo JR. 2015. Los Angeles County Community Water Systems: Atlas and Policy Guide. Supply Vulnerabilities, At-Risk Populations, Conservation Opportunities, Pricing Policies, and Customer Assistance Programs. November 2015. Los Angeles: UCLA Luskin Center for Innovation. Last consulted November 27, 2018:

<http://innovation.luskin.ucla.edu/sites/default/files/Water Atlas 0.pdf>

Public Resources Code. Division 43. The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006. (*Division 43 added November 7, 2006, by initiative Proposition 84, a bond act.*) Chapter 1. General Provisions. 75005(g). Last consulted November 27, 2018:

http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=75005.&lawCode=PRC

Roaf V, Khalfan A, Langford M. 2008. Monitoring implementation of the right to water: a framework for developing indicators. Global Issue Paper No. 14. Berlin: Heinrich Böll Stiftung. Last consulted December 6, 2018:

<https://www.boell.de/de/internationalepolitik/internationale-politik-2143.html>

Rockowitz D, Askew-Merwin C, Sahia M, Markley K, Kay C, Reames T. 2018. Household water security in metropolitan Detroit: measuring the affordability gap. (Poverty Solutions). University of Michigan. Last consulted November 27, 2018:

<https://poverty.umich.edu/10/files/2018/08/PovertySolutions-PolicyBrief-0818-r2.pdf>

Sawkins JW, Dickie VA. 2005. Affordability of household water service in Great Britain. *Fiscal Studies* 26:207-13.

Smets H. 2017. Quantifying the Affordability Standard. In: *The Human Right to Water: Theory, Practice and Prospects*, First ed. (Langford M, Russell AFS, eds). Cambridge: Cambridge University Press, 225-75.

State Water Board. 2012. California State Water Resources Control Board. Communities that Rely on Contaminated Groundwater Source for Drinking Water. Report to the Legislature. Draft. February 2012. Last consulted November 27, 2018:

https://www.waterboards.ca.gov/gama/ab2222/docs/cmntes_rely_gw.pdf

—. 2015. California State Water Resources Control Board. Safe Drinking Water Plan for California. Report to the Legislature. In Compliance with Health and Safety Code Section 116365. June 2015. Last consulted December 6, 2018:

https://www.waterboards.ca.gov/publications_forms/publications/legislative/docs/2015/sdwp.pdf

—. 2017. California State Water Resources Control Board. Announcements: Maximum Contaminant Level for Hexavalent Chromium - Court's Judgment Invalidating MCL. Last consulted November 27, 2018:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.html

- . 2018. California State Water Resources Control Board. Human Right to Water Portal. Last consulted November 27, 2018:
http://waterboards.ca.gov/water_issues/programs/hr2w/index.shtml
- Teodoro MP. 2018. Measuring household affordability for water and sewer utilities. *Journal of the American Water Works Association* 110:13-24.
- Title 22, California Code of Regulations. Section 60098 et seq., Monitoring and Reporting Requirements. Last consulted November 27, 2018:
<https://govt.westlaw.com/calregs/Document/I26230650AC7B11E1BA89BEC85F6A29BF>
- . Section 64670 et seq., Lead and Copper. Last consulted November 27, 2018:
<https://govt.westlaw.com/calregs/Document/I5D73A880D4BA11DE8879F88E8B0DAAAE>
- . Section 64400. Acute Risk. Last consulted November 27, 2018:
<https://govt.westlaw.com/calregs/Document/I1BF68580D4BA11DE8879F88E8B0DAAAE>
- Title 26, California Code of Regulations, Section 22-64463.1, Tier 1 Public Notice. Last consulted November 27, 2018:
<https://govt.westlaw.com/calregs/Document/IC5D20A593098476C8D40B02718131E9E>
- United Nations CESCR. 2002. United Nations Committee on Economic Social and Cultural Rights. General Comment No. 15: The Right to Water. UN Doc E/C12/2002/11.
- United Nations-Habitat. 2014. Realizing the Human Rights to Water and Sanitation. A Handbook by the United Nations Special Rapporteur Catarina de Albuquerque. Last consulted November 27, 2018: <https://unhabitat.org/books/realising-the-human-rights-to-water-and-sanitation-a-handbook-by-the-un-special-rapporteur-catarina-de-albuquerque/>
- US Conference of Mayors. 2014. Public Water Cost Per Household: Assessing Financial Impacts of EPA Affordability Criteria in California Cities. November 2014. Last consulted November 27, 2018: <https://cacities.org/getattachment/Member-Engagement/Regional-Divisions/Los-Angeles-County/Water-Cost-Per-Household-Report-California-Cities.pdf>
- US EPA. 1998. US Environmental Protection Agency. Information for States on Developing Affordability Criteria for Drinking Water. EPA 816-R-98-002. Last consulted November 27, 2018: <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=91022JSV.TXT>
- US EPA. 2004. US Environmental Protection Agency. The Standardized Monitoring Framework: A Quick Reference Guide. EPA 816-F-04-010. Office of Water. March 2004. Last consulted November 27, 2018: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=3000667K.txt>
- Water Code. Division 6. Conservation, Development, and Utilization of State Water Resources (*Chapter 3 added by Stats. 2009, 7th Ex. Sess., Ch. 4, Sec.1*) Chapter 3. Urban Retail Water Suppliers. Sections 10608.20. Last consulted November 27, 2018:
https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=WAT&division=6.&title=&part=2.55.&chapter=3.&article=
- World Health Organization (WHO), and United Nations Children’s Fund (UNICEF). 2017a. Joint Monitoring Program for Water Supply, Sanitation and Hygiene (JMP) Methodology, 2017

Update & SDG baselines. Geneva: World Health Organization and the United Nations International Children's Emergency Fund. Last consulted November 27, 2018:
<https://washdata.org/sites/default/files/documents/reports/2018-04/JMP-2017-update-methodology.pdf>

———. 2017b. Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. Geneva: World Health Organization and the United Nations International Children's Emergency Fund. Last consulted November 27, 2018:
https://www.unicef.org/publications/files/Progress_on_Drinking_Water_Sanitation_and_Hygiene_2017.pdf

Assembly Bill No. 401

CHAPTER 662

An act to add Section 189.5 to the Water Code, relating to low-income water assistance.

[Approved by Governor October 9, 2015. Filed with
Secretary of State October 9, 2015.]

LEGISLATIVE COUNSEL'S DIGEST

AB 401, Dodd. Low-Income Water Rate Assistance Program.

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including water corporations, as defined. Existing law authorizes the commission to fix the rates and charges for every public utility, and requires that those rates and charges be just and reasonable. Existing law requires the Public Utilities Commission to consider, and authorizes the commission to implement, programs to provide rate relief for low-income ratepayers of a water corporation.

Existing law establishes the State Water Resources Control Board and the 9 California regional water quality control boards as the principal state agencies with authority over matters relating to water quality. Existing law requires the state board to formulate and adopt state policy for water quality control.

This bill would require the state board, no later than January 1, 2018, in collaboration with the State Board of Equalization and relevant stakeholders, to develop a plan for the funding and implementation of the Low-Income Water Rate Assistance Program, which would include specified elements. The bill would permit the board to consider existing rate assistance programs authorized by the commission in developing the plan and would authorize the plan to include recommendations for other cost-effective methods of offering assistance to low-income water customers. The bill would require the state board, no later than February 1, 2018, to report to the Legislature on its findings regarding the feasibility, financial stability, and desired structure of the program, including any recommendations for legislative action that may need to be taken.

The people of the State of California do enact as follows:

SECTION 1. Section 189.5 is added to the Water Code, to read:

189.5. (a) This section shall be known, and may be cited, as the Low-Income Water Rate Assistance Act.

(b) No later than January 1, 2018, the board, in collaboration with the State Board of Equalization and relevant stakeholders, shall develop a plan

for the funding and implementation of the Low-Income Water Rate Assistance Program, which shall include all of the following elements:

(1) A description of the method for collecting moneys to support and implement the program, including a discussion of any constitutional restrictions on public water agency ratesetting.

(2) A description of the mechanism for providing funding assistance under the program through either direct credits to enrollees in the program or reimbursements to water service providers, including a method for verifying income eligibility of low-income ratepayers, clarification of the role of the Public Utilities Commission and water utilities in determining and verifying customer eligibility, and recommendations regarding the structure of the program, particularly whether it will be administered by the state or locally administered.

(3) A description of the method to be used to determine the amount of moneys that may need to be collected from water ratepayers to fund the program. The plan shall include a set of recommendations and best practices of cost-savings measures to ensure water utilities are demonstrating whether and how they are keeping rates low. This section does not authorize the imposition of a state charge to fund the program.

(c) In developing the plan required in subdivision (b), the board may consider the existing rate assistance programs authorized by the Public Utilities Commission for investor-owned water utilities pursuant to Section 739.8 of the Public Utilities Code.

(d) The plan may also include recommendations for other cost-effective methods of offering assistance to low-income water customers besides rate assistance, including billing alternatives, installation of water conservation devices, and leak repair. In considering other methods, the board may consider the Public Utilities Commission's "Assessment of Water Utility Low-Income Assistance Programs."

(e) (1) No later than February 1, 2018, the board shall report to the Legislature on its findings regarding the feasibility, financial stability, and desired structure of the program, including any recommendations for legislative action that may need to be taken.

(2) The requirement for submitting a report imposed under this subdivision is inoperative on February 1, 2022, pursuant to Section 10231.5 of the Government Code.

(3) A report to be submitted pursuant to this subdivision shall be submitted in compliance with Section 9795 of the Government Code.

(f) For purposes of this section, the following terms have the following meanings:

(1) "Board" means the State Water Resources Control Board.

(2) "Low-income" means a household with income that is equal to or no greater than 200 percent of the federal poverty guideline level. For one-person households, program eligibility shall be based on two-person household guideline levels.

(3) “Program” means the Low-Income Water Rate Assistance Program.

O

***Options for Implementation of a Statewide
Low-Income Water Rate Assistance Program***

***State Water Resources Control Board
January 3, 2019***

DRAFT

Table of Contents

Introduction.....	3
Executive Summary	4
Chapter 1: Why help households pay for drinking water service? The need for Low-Income Rate Assistance in California.....	8
Chapter 2: Program Design Scenarios: Eligibility, Benefit Level, and Total Program Cost.....	17
Chapter 3: Revenue Collection Options.....	22
Chapter 4: Options for Benefit Distribution and Administrative Features of a Statewide Low-Income Ratepayer Assistance Program	24
Appendix A: Text of Assembly Bill 401, Dodd. Low-Income Water Rate Assistance Program	
Appendix B: Summary of Public Input Process and Methodology for Program Scenario Analysis	
Appendix C: Features of Existing Low-Income Ratepayer Assistance Programs	
Appendix D: Lack of Federal and State Water Affordability Programs	
Appendix E: Alternate Program Scenarios	
Appendix F: Other Program Scenarios Evaluated	
Appendix G: Analysis of Revenue Collection Options	
Appendix H: Analysis of Benefit Delivery Methods	
Appendix I: CalFresh	
Appendix J: New Electronic Benefits Transfer (EBT) Program	
Appendix K: Community Water Systems	
Appendix L: Options for Improving Affordability That Do Not Include Direct Rate Assistance	
Appendix M: Roles and Responsibilities Under Different Program Scenarios	
Appendix N: Estimate of State Water Board Program Implementation Costs for Electric Benefit Delivery Program Option	

Appendices can be accessed through the State Water Board website at:

https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/.

Introduction

In 2012, California enacted the Human Right to Water Act (Assembly Bill (AB) 685), establishing a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes. Since the passage of AB 685, the Legislature passed and the Governor signed various laws¹ aimed at making this policy a reality. There is, however, more to do. In recognition that many Californians may not be able to pay their water bills, AB 401 (Dodd, 2015) enacted the Low-Income Water Rate Assistance Act, which directed the State Water Resources Control Board (State Water Board or Board) to submit recommendations for a statewide Low-Income Water Rate Assistance Program (W-LIRA).

In this draft report, the State Water Board outlines possible components for developing a successful program to help low-income households pay their water bills. Specifically, the report identifies potential program recipients, different mechanisms for delivering benefits to low-income households, and possible funding sources to implement such a W-LIRA program. The purpose of this report is to present ideas for a W-LIRA program for public and stakeholder input, and the options outlined reflect discussions with public interest groups and stakeholders. The Board will use the input gathered in response to this draft to develop a final report to the Legislature in 2019.

In addition to welcoming feedback on this AB 401 draft report, the State Water Board also encourages review of the Office of Environmental Health Hazard Assessment's (OEHHA) draft *Framework and Tool for Evaluating California's Progress in Achieving the Human Right to Water*. Following the adoption of a Human Right to Water Resolution² in 2016, the Board enlisted OEHHA to develop a methodology for evaluating the state's progress in meeting the Human Right to Water policy. OEHHA's draft framework and tool can help evaluate and track our progress towards achieving safe, clean, affordable, and accessible water for all Californians.

While AB 401 is focused on assisting low-income households in paying their water bills, the State Water Board is committed to achieving the Human Right to Water in full. Multiple strategies will be necessary. This includes securing sustainable funding for the long-term operation and maintenance of water systems, consolidation of unsustainable systems, and improving technical, managerial, and financial capacity for systems serving disadvantaged communities. While the state continues to explore options for comprehensive solutions, developing a W-LIRA program will provide a necessary safety net for the most vulnerable Californians.

¹ These laws include: Senate Bill (SB) 88 (2015), SB 552 (2016), SB 1263 (2016), AB 401 (2015), AB 1668 & SB 606 (2018), AB 2501 (2018), and SB 998 (2018).

² State Water Board. Human Right to Water Resolution. Available at URL: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/rs2016_0010.pdf.

Executive Summary

The Growing Water Affordability Challenge

Drinking water is a basic human need. Satisfying this need, however, is becoming more difficult for California's households, as the retail cost of water has risen substantially over the last decade and is expected to rise significantly over the coming years. Figure 1 shows that, adjusting for inflation, the average Californian household was paying around 45% more per month for drinking water service in 2015 than in 2007. The burden of rapidly-rising drinking water costs falls most heavily on the 13 million Californians living in low-income households, many of whom have seen their incomes stagnate during the same period. The high and rising costs of other basic needs for California residents, including housing, food, and other utility services, means that cost increases for any single need, such as water, can lead families to make difficult and risky tradeoffs which could harm their health and welfare. Expenditures to meet basic water needs are expected to continue to rise rapidly due to the need for water systems to replace aging infrastructure, meet treatment standards, diversify supplies, and maintain a well-trained workforce.

Figure 1. Inflation-adjusted Increase in average price of water (15 CCF³) for California Households



Source: American Water Works Association Data, 2007-2015

Need for a Statewide Program

Only 46% of California's population is served by a community water system (CWS)⁴ offering some form of a rate assistance program, and many of these programs have low levels of enrollment and limited

³ Centum cubic feet (CCF) is also known as a hundred cubic feet (HCF), which is 748 gallons. For a four person household, 12 CCF of use in a month equates to 75 gallons of water per person per day.

⁴ Community water systems serve communities with more than 25 people year-round. It is a term the Board's Drinking Water Division uses to distinguish them from other drinking water providers, such as domestic wells, truck stops, camp grounds, etc.

financial support. As a result, less than 20% of the state's low-income population currently receives benefits from a low-income rate assistance program. One reason for the limitation in program offerings is that publicly-owned water systems are constrained by Proposition 218⁵ in the use of their water fees and charges. Systems that do provide low-income rate assistance benefits are able to fund them from non-fee revenues.

There are also administrative obstacles associated with providing a rate assistance program to water users at the system level. Asking approximately 3,000 individual CWS to operate their own standalone rate assistance programs for their individual customer bases is infeasible. As illustrated in Figure 2, using 200% of the federal poverty level (FPL) as the baseline eligibility criteria for W-LIRA programs would mean that for many systems more than 50% of their customers would be eligible for assistance. To operate a low-income rate assistance program, these systems would likely have to impose outsized cost burdens on higher-income households served by the systems.

Figure 2. Large Water Systems with High Percentages of Low-Income Households That Could be Eligible for Rate Assistance



Note: Calculated using Census data and system water boundaries. The percentages shown above represent the proportion of residential customers served by the system who have incomes under 200% of the Federal Poverty Level.

⁵ Passed in 1996, Proposition 218 requires certain local government taxes, fees and assessments to go before the voters for approval.

Because developing a comprehensive low-income rate assistance program at the system level is not practical, the Board envisions a statewide program, with benefits distributed through other existing assistance program, such as utility bill credits, tax credits, or direct cash benefits.

The Board recommends progressive revenue sources (i.e. taxes or fees) in order not to burden some of the residents that this program seeks to serve. For example, taxes on personal and business income would provide progressive revenues, while fees on bottled water or alcohol would have a nexus to water use.

Eligibility criteria and benefit levels would influence the total program costs. AB 401 directed the Board to use 200% of the FPL as the primary eligibility criteria in its analysis; however, the Board seeks input on alternate eligibility criteria that can feasibly be implemented across the state (some of which are discussed in Appendix F). Benefit levels could be tied to the cost of water, other assistance programs, or certain affordability criteria. The Board developed the working proposal below to elicit input and inform a robust discussion. The program scenario would offer a three-tiered benefit to all eligible residential households (those with income under 200% of the FPL) in the state.⁶ The program would provide a benefit equivalent to the tiers below. The monetary value of the discounts provided in each tier would be based on a consumption level of 12CCF each month for each of the 3,000 community water systems, rather than each household's actual amount consumed (and actual bills), as explained below in Chapter 2.

Text Box 1: Potential Program Benefit Levels

Tier 1: 20% discount to all households that have incomes below 200% of the federal poverty level (FPL) in water systems where monthly water expenditures (at 12 CCF) are below \$90,

Tier 2: 35% discount to all households that have incomes below 200% of the FPL in water systems where monthly water expenditures (at 12 CCF) are between \$90 and \$120, and

Tier 3: 50% discount to all households that have incomes below 200% of the FPL in water systems where monthly water costs (at 12 CCF) are above \$120.

Because the average monthly water bill is around \$60 per month,⁷ most low-income households would be in Tier 1.

The proposed benefit levels would provide substantial assistance to all low-income households, but also a larger benefit to those in the CWS that have the greatest drinking water expenditure burden. Moreover, both the program eligibility criteria and first two benefit tiers correspond to the California Alternative Rates for Energy (CARE) program design where 4.3 million low-income households receive a 30-35% discount on their electric bill and a 20% discount on their natural gas bill. However, CARE benefits relate to customers' actual bill amounts rather the system-wide rates for a set level of consumption, as in this report's working proposal.

This scenario is projected to cost about \$606 million in the first year for benefit distribution and program administration. Costs would adjust over time based on changes in the number of eligible households and

⁶ The Federal Poverty Level is based on household size; so larger households would qualify with higher incomes than smaller households.

⁷ See Chapter 2: Program Design Scenarios: Eligibility, Benefit Level, and Total Program Cost.

water rates. The total annual cost includes ongoing program management costs, such as potential expanded household enrollment verification procedures, marketing and outreach, and benefit distribution system modifications, as discussed further in Chapter 4 and the Appendices. Modifications to this scenario would result in different cost projections. For example, shrinking eligibility to households earning up to 150% of the FPL would reduce program costs, while expanding eligibility to households earning up to 250% of the FPL would raise program costs. The same logic applies to the program benefit levels, including the amount of water use upon which calculations are based. In addition, initial program costs would decrease if the program were phased-in overtime, such as if benefits were initially only extended to low-income households in areas with higher water bills.

Although there are many options for improving water affordability, the need to address this growing crisis is clear. The Board looks forward to receiving feedback on this report and to working with stakeholders, the Administration, and the Legislature to develop and implement policy solutions.

Safe Drinking Water Must Be a Priority

The development of a W-LIRA program and other discussions on water affordability should not delay the urgent need to address the problem of unsafe drinking water. This is an urgent public health crisis and solutions are already well developed. Hundreds of thousands of Californians lack access to safe drinking water. A significant challenge is the lack of a sustainable funding for long-term operations and maintenance for drinking water systems. Over the past two years, the Legislature has proposed a modest surcharge of \$1 per month on certain California households to address the systematic challenges that prevent the delivery of safe drinking water to Californians.⁸ Low-income residents would be exempt from paying such a charge, and community water systems would be allowed to retain a portion of the funding for their expenses of collecting and transmitting the monies to the state.

⁸ SB 623, SB 844 and SB 845.

Chapter 1: Why help households pay for drinking water service? The need for Low-Income Rate Assistance in California

AB 401 mandates that the State Water Board, in collaboration with the Department of Tax and Fee Administration (formally known as the State Board of Equalization) and relevant stakeholders, develop a plan for the funding and implementation of a W-LIRA, which would include specified elements (see Appendix A for the full text of AB 401). This draft report (including its appendices) reflects the analysis from the planning process envisioned by AB 401, while allowing for additional public and stakeholder feedback.

Why help households pay for drinking water service?

Rising income inequality coupled with California's high cost of living means that meeting basic needs, including housing, food, clothing, transportation, healthcare, and utilities is increasingly a struggle for many households. Currently, 34% of Californians, roughly 13 million people, live in households with income under 200% of the federal poverty level (FPL), which in 2018 is \$50,200 for a family of four. When families are unable to pay their bills, they face difficult and highly consequential trade-offs, like skipping meals and going hungry, risking eviction, or facing potential disconnection for electric, gas, or water services.

An analysis of U.S. Census data reveals that the real median household income in California in 2017 was lower than it was in 2007.⁹ Across the nation more broadly, there has been a stagnation in real incomes for low- to moderate-income earners, and a lack of households moving out of poverty conditions spanning the last 30 years.¹⁰ At the same time, the largest necessary cost of living – housing costs – have shown rapidly increasing divergence from household income since 2000.¹¹ Low-income households need more support to make ends meet. Providing all low-income households with financial assistance to help pay their water bills is a small, but important way the state can support provision of basic necessities for all Californians.

Table 1 shows the results of the stagnation in household incomes for the lower end of the income distribution in California. Recent data shows that nearly 15% of California households have an income below the FPL and more than one-third of California households have an income below 200% of the FPL.¹²

⁹ Alternatively, the percentages of households under 100% or 200% of the FPL are slightly higher in 2015 than 2005.

¹⁰ Drew Desilver (2014). Pew Research Center. *For most workers, real wages have barely budged for decades*. Available at: <http://www.pewresearch.org/fact-tank/2014/10/09/for-most-workers-real-wages-have-barely-budged-for-decades/>; Elise Gold (2015). Economic Policy Institute. *2014 Continues a 35-Year Trend of Broad-Based Wage Stagnation*. Available at: <http://www.epi.org/publication/stagnant-wages-in-2014/>.

¹¹ California Housing and Community Development Department (2017). *California's Housing Future: Challenges and Opportunities Public Draft*. Available at: <http://www.hcd.ca.gov/policy-research/plans-reports/docs/California%27s-Housing-Future-Full-Public-Draft.pdf>.

¹² The percentage of households below the 100% and 200% FPL closely corresponds to the national averages, which are 16% and 35%. For reference, 200% of FPL for a 4-person household in 2015 was \$48,600. This income level roughly corresponds to the Board's 2015 median household income cutoff for defining "disadvantaged communities" (DAC) of \$49,454. The DAC threshold in turn is set at 80% of the state's median household income (which is \$61,818) and the metric is widely used to determine eligibility

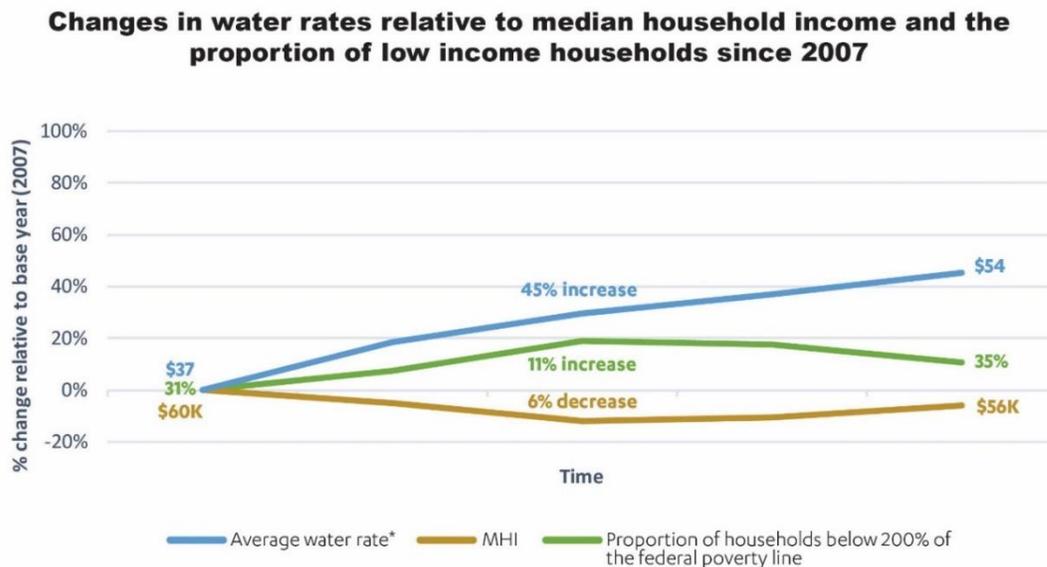
Table 1. Financially Disadvantaged California Households

Designation	% Percent of State Households
Below 100% of Federal Poverty Level	14%
Below 150% of Federal Poverty Level	24%
Below 200% of Federal Poverty Level	34%

Source: 2010-2014 American Community Survey Data

Figure 3 illustrates the combined effects of stagnating incomes for low- and median-income households and rising retail drinking water costs.

Figure 3. Changes in water rates relative to median household income and the proportion of low-income households since 2007 (adjusted for inflation)



There are at least four additional rationales to support the development of a W-LIRA program in California:

for other drinking water system financial assistance programs in California. The 200% FPL threshold is particularly relevant for the purpose of considering the need for a W-LIRA program because these income levels are most commonly used as eligibility criteria for existing low-income rate assistance programs. AB 401 also specifically mentions the 200% FPL threshold.

1. *The devastating health and livelihood impacts people experience where water is unaffordable,*
2. *The rapidly-rising retail cost of drinking water,*
3. *The general absence of robust low-income rate assistance program or affordability programs, when they are available for many other basic household needs, and*
4. *The inability of many individual water systems to support a rate assistance program on their own.*

Each of these motivations for a W-LIRA program is explained in turn below.

#1- Health and livelihood impacts

If water is unaffordable, low-income households will likely either consume less water than is healthy and/or consume less of other vital goods and services to pay for the water they need.¹³ In other words, low-income households face tradeoffs that harm their health and welfare.¹⁴ One example of this is in the City of Detroit, where 156,000 households struggled with increased water rates alongside necessary electricity costs for heating during a frigid winter. Households prioritized the immediate need of electricity over water, and the city experienced a high rate of water shutoffs due to non-payment.¹⁵

Unaffordable water service, especially in light of low-income households' extremely-constrained incomes, can lead to service disconnections. A major public health concern from water shutoffs is water-related illnesses. A recent study by the Henry Ford Hospital examined the public health implications of water shutoffs in the City of Detroit. By analyzing water-borne illnesses and comparing them to home addresses of water shutoffs, researchers found that patients diagnosed with skin and soft tissue diseases were 1.48 times more likely to live on a block that experienced water shutoffs. Following the release of the study in July 2017, a panel of experts, including physicians, called for the declaration of a public health emergency in the city because of the correlation between water shutoffs and water-related illnesses.¹⁶ For similar reasons, the City of Pittsburgh Water and Sewer Authority recently placed a moratorium on drinking water service shutoffs in the winter season.¹⁷ Moreover, the recent Hepatitis A outbreak across parts of California among at-risk populations without permanent shelter has been partially attributed to a lack of access to adequate water and sanitation facilities.¹⁸ At a broader scale, shutoffs and lack of affordable access to water can result in an economic burden to the state, as low-income families facing these challenges incur outsized healthcare costs, some of which are subsidized by the state.

¹³ Davis, Jon P. and Teodoro, Manuel P. (2017). "Financial Capability and Affordability." Chapter 22 in *Water and Wastewater Finance and Pricing: The Changing Landscape*, Fourth Edition.

¹⁴ Morduch, Jonathan, and Schneider, Rachel. *The Financial Diaries: How American Families Cope in a World of Uncertainty*. Princeton University Press, 2017.

¹⁵ Filson, J. and Avery, T. (2017). "Water Shutoffs in Detroit: An Ongoing Crisis." *Food & Water Watch*.

¹⁶ Chambers, Jennifer. Experts: Water shutoffs causing public health emergency. *The Detroit News*. [Online] July 26, 2017. Available at: <http://www.detroitnews.com/story/news/local/detroit-city/2017/07/26/detroit-water-shutoffs-health-study/104016812/>.

¹⁷ The Pittsburgh Water and Sewer Authority (2017). Winter Moratorium Program- Frequently Asked Questions. Available at: http://apps.pittsburghpa.gov/redtail/images/1647_WinterMoratoriumProgram_FINAL.PDF.

¹⁸ For instance, see California Department of Public Health (2018). "Hepatitis A Outbreak in California". Available at: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Hepatitis-A-Outbreak.aspx>.

Households that cannot pay their water bill in turn face negative impacts to their credit, risk of loss of property, and/or eviction. An example of this is in the City of Baltimore where the water system often sells unpaid water bills as property liens in tax sales. Households that cannot pay back the bill in addition to charges and interest to the buyer of the lien lose the home to foreclosure. From 2014 to 2015, the number of homes sold at tax sales in Baltimore with water-only liens rose from 671 to 902.¹⁹ While the Board does not yet have a complete dataset for statewide water shutoffs, shutoff concerns were raised at the public meetings Board staff held around the state, and in the comment letters the Board received.²⁰

#2- The rapidly-rising retail cost of drinking water

Understanding drinking water affordability for households requires consideration of the necessary expenditure for water paid by a household, the income of the household, as well as the costs of other vital goods and services such as housing, utilities, food, transportation, and healthcare.²¹ Water affordability becomes a more pressing issue for households as water service rates rise.

The Board began maintaining water rate data for California's drinking systems in 2014. Using this data for estimation purposes, the average California household in 2015 paid around \$60 per month for 12 CCF of drinking water service. Longer-standing sources of rate data indicate that the retail price of water has risen dramatically above the pace of inflation in California (and the U.S. more broadly) over the last decade.²² Moreover, financial analysts project the retail price of water to rise significantly in California over the coming years.²³

As summarized in Figure 4, rising rates for water service are attributable to a number of factors, two of which are relatively unique to water within basic service sectors.²⁴ First, water has been historically underpriced compared to the true cost of service,²⁵ which has led to many water systems in California now having aging infrastructure that must be replaced. In addition, more stringent water quality standards

¹⁹ Jacobson, Joan (2016). *Keeping the Water On: Strategies for addressing high increases in water and sewer rates for Baltimore's most vulnerable customers*. The Abell Foundation.

²⁰ See https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/ for links to AB 401 comment letters.

²¹ For instance, see Teodoro, M. P. (2018). Measuring Household Affordability for Water and Sewer Utilities. *Journal-American Water Works Association*, 110(1), 13-24. While designing a statewide affordability program with an eligibility or benefit criteria which takes account of the cost of other vital goods and services for low-income households may be ideal, it was deemed infeasible for two reasons. First, it is not possible to obtain accurate and representative data on variation in other essential costs outside of large metropolitan areas, as shown in a close reading of Teodoro, 2018. Second, and perhaps more importantly, it is unreasonable to expect a potential statewide drinking water affordability program to compensate for the high local cost of other essential services given that this potential program has no federal or state general fund assistance and is being considered after the establishment of other much longer-standing benefit programs.

²² 2015 California-Nevada Water and Wastewater Rate Survey. American Water Works Association and Raftelis. Available at: <http://ca-nvawwa.org/canv/downloads/2016/CANVRateSurvey2015.pdf>.

²³ Carroll, Rory. September 18, 2015. "California water prices set to rise next year: Fitch." Available at: <http://www.reuters.com/article/us-california-water-rates/california-water-prices-set-to-rise-next-year-fitch-idUSKCN0QN1PH20150818>.

²⁴ 2015 California-Nevada Water and Wastewater Rate Survey. American Water Works Association and Raftelis. Available at: <http://ca-nv-awwa.org/canv/downloads/2016/CANVRateSurvey2015.pdf>; [American Society of Civil Engineers, California Infrastructure Overview \(2017\)](#).

²⁵ For instance, see Timmins, C. (2002). Does the median voter consume too much water? Analyzing the redistributive role of residential water bills. *National Tax Journal*, 687-702.

require additional costs for treatment and operator training.²⁶ Second, the percentage of federal support in the total public spending on infrastructure for water utilities has fallen from over 30% in the 1970s to less than 5% in 2015.²⁷ In other words, state agencies and especially local water systems need to finance their own operations to a much greater extent than in the past.

Figure 4. Drivers of Rising Water Rates in California



Source: Based on feedback from water system managers and review of academic literature on water rates.

Among these cost drivers, climate change adaptation will play a significant role in the future of water affordability as both populations and suppliers shift behaviors and practices in response to climatic impacts. At the household level, the effects of higher temperatures will be felt across the state, with increases of 5°F and 10°F predicted by the 2030s and late 2090s, respectively.²⁸ Numerous studies show these increased temperatures will result in greater residential water demand;²⁹ the most specific urban case study shows an annual per capita increase of 1.6 gallons per 1°F increase, for temperatures above 78°F.³⁰

Alongside this increase in demand, there will also be an increase in the difficulty of maintaining safe and consistent water supplies due to physical and hydrologic shifts, including drought, occurring throughout the state. One widely-recognized challenge is sea level rise, which is expected to increase and inundate

²⁶ Hanak, E., Gray, B., Lund, J., Mitchell, D., Chappelle, C., Fahlund, A., Jessoe, K., Medellin-Azuara, J., Misczynski, D., Nachbaur, J., Suddeth, R., Freeman, E., and Stryjewski, E. "Paying for Water in California." (2014). Public Policy Institute of California, pg. 35.

²⁷ U.S. Congressional Budget Office (2015), Public Spending on Transportation and Water Infrastructure, 1956 to 2014, Available at: <https://www.cbo.gov/publication/49910>; Eskaf, Shadi, September 26, 2015. "Four Trends in Government Spending on Water and Wastewater Utilities Since 1956" Available at: <http://efc.web.unc.edu/2015/09/09/four-trends-government-spending-water/>.

²⁸ CalEPA & CPDH, 2013

²⁹ Pacific Institute, 2012; Wang et al., 2015; Neale et al., 2007

³⁰ Protopapas et al., 2000

groundwater with salts, decreasing groundwater availability for drinking water supplies.³¹ Additionally, the increased prevalence of wildfire burns across California described by Westerling et al. (2011) and Westerling & Bryant (2007) is diminishing watershed health and will likely lead to increases in the costs of drinking water supplies. Lastly, and most importantly for California, the Sierra Nevada snowpack, which currently supplies the state with over 60% of its water supply for urban and agricultural uses, is shrinking and will continue to do so, forcing water providers to seek alternatives.

In addition to past and expected future water rate increases for all customers, the water sector is different than other basic services in its variability in retail rates across different retail systems. Retail rate divergence by neighboring systems is not unique to California³² but is certainly very common within the state.³³ Again, the average California household paid around \$60 per month for 12 CCF of drinking water service in 2015, but there was tremendous variation in the price paid by households. Many systems (973) charge rates higher than the state average, with some charging one and a half (175), two (28), or three times (4) the average price for the same amount of water. The state's geography, population distribution, and hydrology mean that source water quality and quantity vary tremendously, and some systems face high costs to obtain and treat water.

Prominent examples of very high drinking water costs include those experienced by residents of Cantua Creek in Fresno County and Lucerne in Lake County. Residents in Cantua Creek pay roughly \$174 a month.³⁴ Residents in the Lucerne pay roughly \$350 in monthly water bills due to system upgrades.³⁵ Moreover, in the City of Fontana, residents will experience a 30.7% increase in water rates over the next three years.³⁶ Larger cities are not exempt from this trend; the City of San Francisco rates have risen 127% over seven years.³⁷ As more fully discussed in the report, differences in the geographic location, source water quality, regulatory oversight, and socioeconomic profile of systems drive variation in rates across water systems in California.

#3- Comparable programs exist in other sectors

Another justification for the creation of a W-LIRA in California is that statewide programs already operate to subsidize other essential services at the household level. As discussed in more detail in Appendix C, robust, relatively-longstanding mandated programs at the federal and state levels subsidize the

³¹ Hoover, et al., 2017

³² Gregory, Ted; Reyes, Cecilia; O'Connell, Patrick M.; and Caputo, Angela; Same Lake, Unequal Rates: Why our water rates are surging – and why black and poor suburbs pay more. (October 25, 2017). Chicago Tribune, Available at <http://graphics.chicagotribune.com/news/lake-michigan-drinking-water-rates/index.html>; Jordi Honey-Rosés, David Gill, Claudio Pareja (March 2016), British Columbia Municipal Water Survey 2016.

³³ For instance, see the analysis of retail price variation for 18 CCF in Los Angeles County in DeShazo, J.R.; Pierce, Gregory; and McCann, Henry. "Los Angeles County Community Water Systems Atlas and Policy Guide: Supply Vulnerabilities, At-Risk Populations, Conservation Opportunities, Pricing Policies, and Customer Assistance Programs." UCLA: Luskin Center for Innovation.

³⁴ Public comment made by Cantua Creek resident at the AB 401 Public Meeting. (2017). Fresno, CA. Additional information available at: <http://www.co.fresno.ca.us/home/showdocument?id=5925>.

³⁵ Dilling, Audrey. "Why This California Town's Water Costs Way More Than the National Average." (2017). *KQED News*.

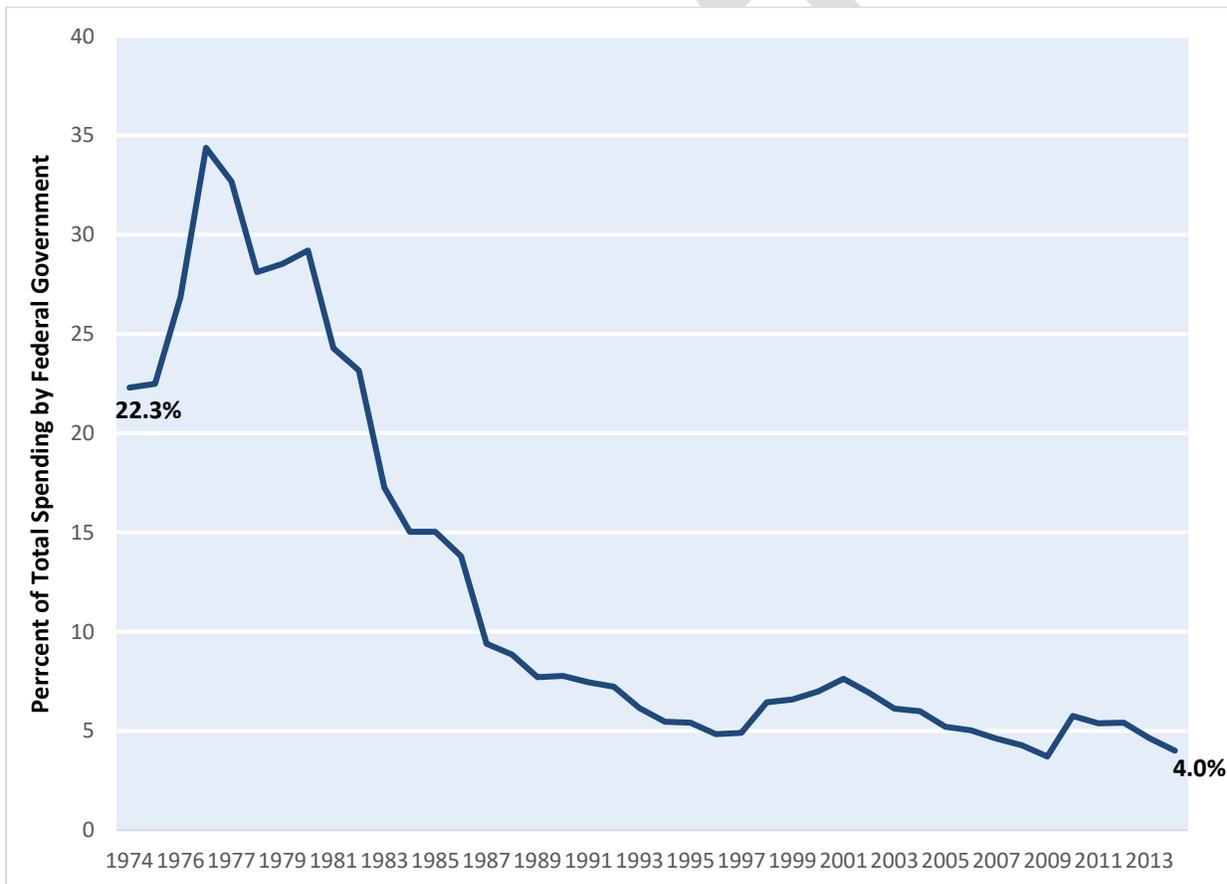
³⁶ "Water Rates for Fontana Water Company Customers Will Go Up 30.7 Percent, CPU Says." (2017). *Fontana Herald News*. Available at: https://www.fontanaheraldnews.com/news/water-rates-for-fontana-water-company-customers-will-go-up/article_af2cb0e4-6d97-11e7-a4e0-eb5fe175579c.html

³⁷ The Price of Water: Water Rates Dashboard-San Francisco. (2017). *Circle of Blue*. Available at <http://www.circleofblue.org/waterpricing/>.

affordability of basic energy and telephone services for low-income households who apply and are eligible.³⁸

By contrast, no state or federal programs provide affordability assistance directly to households for drinking water services. Similarly, the relative role of federal financial support for water utilities nationwide has fallen since the mid-1970s, as compared to local and state government financial support for water utilities. Figure 6 shows that the federal government supported over 30% of total spending on water utility infrastructure through the 1970s, but less than 5% by 2014.³⁹

Figure 6. The Percent of Total Public Infrastructure Spending on Water Utilities by the Federal Government (1974-2014)



Similarly, nationwide, programs addressing water affordability have traditionally been left up to individual CWS. This holds true in California except for large investor-owned utility systems, which are regulated by the California Public Utilities Commission (CPUC) to provide LIRA programs.

The State Water Board estimates that approximately 46% of the entire Californian population is served by a water system offering some type of rate assistance. Unfortunately, however, the presence of a rate

³⁹ See the Congressional Budget Office's March 2015 report *Public Spending on Transportation and Water Infrastructure, 1956 to 2014*, which contains detailed data of public spending on transportation and water infrastructure at local, state, and federal levels.

assistance program does not mean that the program adequately addresses the affordability need experienced by the system's population. The biggest obstacle faced by existing programs is their limited extent and inability to support those households that are most in need, because many low-income households do not pay a water bill directly, and because the existing programs have low enrollment levels and provide insufficient support. In addition, except for the investor-owned water systems, these existing rate assistance programs are funded by non-rate revenues to comply with Proposition 218, and therefore their funding is insufficient to provide benefits to all eligible households in their jurisdiction. Table 2 shows annual rate assistance programs expenditure data for drinking water systems serving 31% of the state's population in 2015. These systems all offered rate assistance programs and were most likely to have high enrollment rates as compared to other water systems.

Table 2. W-LIRA Program Expenditure for Sample Water Systems in California (2015)

Water Systems	Percent of State's Population Served by System	Amount spent on low-income rate assistance in 2015
Los Angeles Department of Water and Power (LADWP)	10%	\$26 million
CPUC Private Water Systems	14%	\$27 million
24 Other Large Urban Public Water Suppliers	7%	\$4.2 million
TOTAL	31%	\$57.2 million

Sources: LADWP and CPUC financial reports, and a survey of municipal systems conducted directly by the Board

#4: The limitations of standalone system rate assistance programs

The final justification for a W-LIRA program is the fact that many individual water systems in California economically cannot support a rate assistance program on their own. Although there are about 3,000 CWS operating in California, over 80% of the population is served by the 400 largest systems. While the most intuitive solution would seem to be to allow or enable the 3,000 individual CWS to operate their own standalone rate assistance programs for their customer base, the Board's research shows that individual CWS would bear vastly different cost burdens to provide assistance to eligible customers. Ultimately, this means that customers ineligible for assistance in one system (i.e., higher-income customers) might pay much more to support affordability for eligible customers in their system than ineligible customers would in another system. Although most of the systems with the highest eligibility burdens are classified as small or very small, more than 22% of systems throughout the state would have eligibility burdens of more than 50% of their residential customers.

On the other hand, large, more sophisticated systems also see high eligibility rates. Figure 2 illustrates that even among some systems which serve 3,000 or more customers, imposing a requirement to run a standalone rate assistance program would likely cause outsized affordability burdens as well. To operate a W-LIRA program in these systems, outsized cost burdens would need to be passed on to ineligible households within each CWS. Even if a CWS were willing to raise revenue for a rate assistance program in this way, it could face legal challenges from ratepayers arguing that the system's use of water rate revenues for rate assistance program benefits may be subject to Proposition 218. The likely result of encouraging or mandating affordability assistance in systems with high eligibility burdens would be that a sizeable number of CWS would simply not be able to operate a sustainable rate assistance program that would meet the goals envisioned by the Human Right to Water and the Low-Income Water Rate

Assistance Act. Given the challenges facing the many water systems with high eligibility burdens, a W-LIRA appears more feasible to address the statewide mandate of the Human Right to Water.

DRAFT

Chapter 2: Program Design Scenarios: Eligibility, Benefit Level, and Total Program Cost

This chapter proposes a W-LIRA program scenario, with a focus on three key elements in the program design. *Eligibility* is defined as the number of program-qualifying households based on socioeconomic criteria. *Benefit* is the type and dollar amount of annual financial assistance received by an eligible household. *Estimated annual program cost* is equal to the number of eligible households multiplied by the household benefit per household and adjusted for expected enrollment (which decreases total costs) and administrative costs (which increases total costs). Table 4 shows a basic example program scenario cost calculation incorporating each of these three program design elements.

Table 4. Example W-LIRA Program Scenario Calculation

Eligibility	Estimated Number of Eligible Households	1,000
Benefit	Theoretical Benefit per Household	\$100
	Maximum Total Benefits to be Distributed	\$100,000
Annual Cost	Accounting for Expected Enrollment Level*	\$84,000
	Estimated Annual Program Operating Cost**	\$92,400

*This enrollment value mirrors the California Alternative Rates for Energy (CARE) program’s enrollment level 84%, as explained in Chapter 4.

** Assuming 10% administrative costs to operate the program, as explained in Chapter 4.

Appendix E discusses the advantages and disadvantages of several alternative program designs with different eligibility and benefit criteria (and thus total costs) to the proposed scenario which were fully considered in the process of plan development and stakeholder engagement. Using the data and methods described in Appendix B, more than 70 program scenarios were evaluated and empirically estimated over the past three years.

The proposed program scenario would offer three-tiered benefit levels to all eligible residential households in the state, as described in Assembly Bill (AB) 401. In the context of a statewide water assistance program, there is no administratively feasible way to provide an individual percentage discount on each household level consumption,⁴⁰ unless there are verified data on household consumption reported to the program administrator of the assistance program.⁴¹ Therefore, this scenario would provide a benefit based on the cost of consuming 12 CCF as described below:

Tier 1: 20% discount to all households that have incomes below 200% of the federal poverty level (FPL) in water systems where monthly water expenditures (at 12 CCF) are below \$90,

Tier 2: 35% discount to all households that have incomes below 200% of the FPL in water systems where monthly water expenditures (at 12 CCF) are between \$90 and \$120, and

⁴⁰ This is how the four large energy investor-owned utilities operate the California Alternative Rates for Energy (CARE) program.

⁴¹ While this could be achieved via a data transfer process for some systems, the per household consumption-based bill discounts would prove administratively costly to implement across all water systems which either do not meter consumption, have different billing periods, or do not have fully digitized administrative operations (see Chapter 4 for more discussion of this challenge).

Tier 3: 50% discount to all households that have incomes below 200% of the FPL in water systems where monthly water costs (at 12 CCF) are above \$120.

The estimated total annual cost of such a program, and thus the annual revenue target for program operation, in its first year is \$606.4 million. Changes to the proportion of the state's households eligible for the program (those with incomes under 200% of the FPL) could raise or lower the cost of the program. Moreover, the annual cost of the program would rise if residential water rates at the 12 CCF consumption level continue to increase.

Proposed Program Scenario Factors

Eligibility: Baseline eligibility as 200% of the FPL

Most assistance scenarios used in the Board's analysis have a common eligibility criteria of household income equal to or below 200% of the FPL. There are several reasons for the establishment of this common eligibility criteria. Firstly, 200% of the FPL is explicitly defined as the "low-income" criterion in the AB 401 legislation text. Secondly, this eligibility criterion is inclusive: more than one-third of the state's households have incomes at or below 200% of the FPL. Thirdly, 200% of the FPL is a commonly-used criterion by other Low-Income Assistance Programs (LIRA) and social benefit programs (most notably CARE) in California. Use of 200% of the FPL has a clear precedent and allows for potential administrative cost efficiencies between eligibility for other programs and the new W-LIRA program.

Benefit Type: Percentage of total bill benefit

Water systems across the state charge vastly different total dollar amounts for the same volume of water consumed (i.e. 12 CCF), even within the same customer class (residential customers using the same sized pipe). Since all water systems— except those regulated by the CPUC— have discretion over rate design and levels consistent with cost of service requirements, there is wide variability in rate structure design, as further discussed in Chapter 1. (Chapter 1 also explains why some systems face much higher source water costs than others). Consequently, the Board faced the challenge of developing proposals for providing eligible households with equitable benefits based on a certain component of the bill.

Given the complexity in rate structures, a benefit assigned as a percentage of a residential bill at a specified consumption level (including all fixed and variable costs but excluding other non-water service related to charges and fees) is likely to be more equitable than a flat benefit discount, or a discount to a certain component of the bill. To illustrate this point, an example of the affordability support experienced by households served by different community water systems with different rate levels and structures (but the same consumption level, 12 CCF) is shown in Table 6 below.

Three Tier Structure

The tiered benefit structure was developed from the average statewide water expenditure of about \$60 a month for 12 CCF. Low-income households that pay more than 150% (Tier 2) and 200% (Tier 3) of the state average water bill would be eligible for a higher percentage of bill discounts structured through the Proposed Program Scenario. The tiered percentages of bill discounts were chosen with reference to those offered by CARE at 20% (Tier 1) and 35% (Tier 2), with the highest tier of 50% (Tier 3) increasing incrementally by another 15%.

The Proposed Program Scenario has the collective advantage of providing not only substantial affordability assistance to all low-income households, but also a larger benefit to those who face the

greatest drinking water cost burdens.⁴² The biggest disadvantage of this program scenario is that it would require verification of rate data at the system level, and, for newly enrolling households, verification of income data, raising the cost of program administration. The Board would need to verify the cost of 12 CCF for residential customers (for Tier 2 and 3 purposes), and households not already enrolled in the CARE program would need to document their eligibility status (income).

The 20% discount is equivalent to the CARE discount for natural gas service, as well as the high end of discounts currently offered by existing low-income rate assistance programs in California. A discount of 35%, also offered to CARE customers for electricity service, helps households that face water bills exceeding the state average by more than 150% to 200% of the bill average. Finally, the 50% discount tier accounts for the small number of water systems charging more than 200% of the state average for 12 CCF water bills and has a precedent in California Water Service where 50% is the benefit level for households served in very high cost areas.⁴³ Following annual updates to the Board’s record of drinking water costs, information used to determine eligibility and benefit would be adjusted.

Consumption: 12 CCF of water monthly

This program scenario has the advantage of providing not only substantial affordability assistance to all low-income households, but also a larger benefit to those who have the greatest drinking water cost burden. Moreover, both the eligibility criteria and the first two benefit tiers correspond to the criteria laid out by the statewide CARE program for electricity and natural gas affordability. The 12 CCF consumption level accounts for indoor use for large households or a modest amount of outdoor use. As shown in Table 5, the benefit also allows the average California household to afford above 55 gallons/person/day, the current standard for indoor set by AB 1668 (2018) and provides for some outdoor use for a family of four.

Table 5. Daily Water Use Available to a Family of Four at 12 CCF Monthly

Daily Water Use Category	Amount Allocated
Indoor Use	220 gallons (55 gallons x 4)
Outdoor Use	75 gallons
Total Use	295 gallons

12 CCF = 8977 gallons. 8977 gallons = 295 gallons x 30.42 (365/12) days in average month.

For the statewide W-LIRA program, a benefit associated with a percentage of a fixed volume like 12 CCF, would be provided regardless of whether an individual household is consuming more or less than this level. A shortcoming of this approach occurs when necessary household level consumption exceeds 12 CCF, as no additional assistance would be provided compared to what the same household would receive if its necessary consumption was lower than 12 CCF. However, as described above, the 12 CCF consumption level addresses situations where more than four people reside in a household and where households can use modest amounts of water for outdoor irrigation. An additional benefit of using a fixed consumption level is that the W-LIRA program is less exposed to risk of manipulation and does not subsidize or incentivize over-use.⁴⁴ In addition, since most low-income households do not pay a water bill

⁴² While additional or alternative eligibility criteria or benefit tiers might allow for more refined targeting, going beyond the complexity of the primary scenario would be extraordinarily difficult for a statewide program.

⁴³ Available at: https://www.calwater.com/docs/rates/rates_tariffs/all/20180101-Low-Income_Ratepayer_Assistance_-_Schedule_LIRA.pdf.

⁴⁴ On the other hand, using a benefit calculation which is untied to consumption but is set based on the

directly, there is no way to determine their water use, and providing them with benefits requires a uniform approach such as using a fixed consumption level (e.g. 12 CCF) for calculating a benefit level.

To illustrate how a benefit based on a fixed consumption level would work, an example comparing two eligible low-income households is shown below in Table 6. The two households are served by the same community water system but have different consumption levels. The monthly water bill for 12 CCF in this system is \$60, and thus the benefit distributed to each household will be \$12 (20% of \$60). Therefore, when allotting a percent discount to 12 CCF in the various billing tiers, households receive a positive conservation signal to the households that are able to consume less water, while reducing their water bill simultaneously.

Table 6. Illustration of Benefit for Fixed Volume Provided to Households with Different Water Consumption Levels

	Household A	Household B
Water Consumption Level	12 CCF	6 CCF
Initial Monthly Water Bill Amount	\$ 60	\$ 40
Monthly Benefit Received	\$ 12	\$ 12
Remainder of Bill to be paid by Household	\$ 48	\$ 28

Another reason that 12 CCF was chosen as the primary option for analysis is due to access to robust real data at that consumption level. As described in Appendix B, the independent analysis for this report was undertaken using self-reported, system-level expenditure at three consumption levels: 6, 12, and 24 CCF. Both 6 CCF and 24 CCF were also considered but not evaluated. In light of the state’s water conservation priorities and public health goals, 24 CCF was considered too high of a level to subsidize. Conversely, 6 CCF was generally considered too low of a level of supply to support households, considering that many low-income households are larger than the state average.⁴⁵ Some organizations have provided a recommendation that the Board use a lower consumption level, such as 9 CCF, which more closely tracks basic indoor use.⁴⁶ The Board notes that besides the above stated reasons for using 12 CCF, the fundamental question relates to a value judgment about the types of uses and activities that should be subsidized. In the electric sector, the CARE program provides discounts for use up to 400% of the “baseline,” demonstrating a willingness to subsidize consumption over basic levels.⁴⁷

rate set by the system for a consumption level is potentially open to manipulation by systems via rate setting. Systems could respond to a W-LIRA program by shifting the rate burden to consumption levels below 12 CCF, and thus elevate the benefit for eligible households. This type of strategic rate setting would harm a system’s non-eligible households who consume less than 12 CCF of water and dampen the conservation signal to all households, and thus the net incentive to a given system to alter rates is unclear. In stakeholder meetings, water system representatives have also stated that they would not or could not practically engage in this type of strategic rate setting. If the W-LIRA program is established, the Board will monitor this potential for rate setting response to the program going forward.

⁴⁵ Using 2016 American Community Survey data, the average household under 225% of the FPL in California has 10% more members than the average household above 225% of the FPL.

⁴⁶ See for example, the Association of California Water Agencies comment letters.

⁴⁷ See [Public Utilities Code Section 739.1](#) h(i)(1).

Enrollment and Administrative Cost Assumptions

To calculate the annual program cost for any W-LIRA scenario, the plan assumes an 84% enrollment of program-eligible households. This is the enrollment rate achieved by the CARE program, and is the highest enrollment rate observed among state or federal benefit programs. The plan also assumes an additional 10% administrative (or overhead) cost above the dollar value of benefits directly distributed to households for a statewide W-LIRA program. Accessing comparable data or calculating exact administrative cost burden, even for large state and federal benefit programs, is not straightforward. While some existing Board programs have lower overhead rates than 10%, most state or federal benefit programs have higher rates. Moreover, there are substantive start-up costs, including data management, marketing and outreach, billing system adjustments, and fund management that will require higher initial administrative costs and that will vary depending on the selected program option.

Around 34% of the state's households would be income-eligible for this program. Of this 34%, only a small proportion of households will be eligible for the higher tier benefits, 2% and <1% for Tiers 2 and 3 respectively. Building on these high-end estimates for eligibility and enrollment, the Board calculates the initial total annual cost of such a program, and thus the revenue target for program operation, to be \$606.4 million annually.⁴⁸

Table 7. Primary Scenario Breakdown of Eligibility and Cost by Tier

Tier Criterion (Cumulative) 200% FPL	Tier 1 Paying up to \$90	Tier 2 Paying at \$90- \$120	Tier 3 Paying Above \$120	Total
Estimated Number of Eligible Households*	4,045,564	198,040	106,041	4,349,645
Benefit Level per Household	20% of Water Bill	35% of Water Bill	50% of Water Bill	
Maximum Total Benefits to be Distributed	\$ 493.9	\$82.6	\$79.8	\$656.3
Accounting for an Expected Enrollment of 84%**	\$414.9	\$69.4	\$67.0	\$551.3
Total Program Operating Costs (in millions)***	\$456.40	\$76.3	\$73.7	\$606.4

*Accounting for all households in the state (including those not captured by the Board's 2015 rate data (2%) and those not served by CWS (6%)).

**This enrollment value reflects of CARE's enrollment estimation of 84%.

*** Assuming 10% administrative costs to operate this program.

⁴⁸ This figure is generated based on a \$656.3 million annual program cost at 100% enrollment. At a more feasible 84% enrollment target with 10% administrative overhead, the total cost is \$606.4 million.

Chapter 3: Revenue Collection Options

This chapter focuses on how a W-LIRA could be independently and sustainably financed through new revenue collection options. A range of options to finance the program were considered, including taxes on high personal income earners or businesses via the state income tax system, bottled water taxes, surcharges on non-eligible households’ water bills, and other revenue sources (see Appendix G). The broad advantages and disadvantages of each potential revenue source are also discussed in Appendix G. The Board recommends that revenue sources be progressive (see Text Box 2) to avoid imposing additional financial burdens on low-income households. Examples of progressive state taxes include Proposition 63 (2004), the Mental Health Services (MHS) Act and Proposition 39 (2012) also known as the California Clean Energy and Jobs Act.⁴⁹ The MHS Act imposed a 1% special tax on personal taxable income in excess of \$1 million to fund MHS.⁵⁰ Prop 39 closed tax loopholes for out-of-state corporations.⁵¹

Text Box 2: Defining Progressive Revenue Sources

Generally, progressive revenue sources include taxes on income, capital gains, and property. Other taxes, such as sales and excise (production) taxes on certain goods impact economically disadvantaged populations to the extent that they consume these goods and depending on whether the goods or services being taxed are easily substitutable. For example, taxes on food are regressive because everyone needs to eat and there are no substitutes for food. Taxes on luxury goods, on the other hand, generally do not impact low-income households because they are less likely to purchase those goods.

While a personal income tax similar to Prop 63 and Prop 39 would generate significant revenues, additional funding would be needed to support a W-LIRA program as outlined in this document. Table 8 (below) describes a combination of revenue sources to fund a W-LIRA program as detailed in Chapter 2 scenario. A quarter percent tax increase on personal income above \$1 million, combined with sales tax revenues from bottled water sales is estimated to generate \$ 619.6 million.⁵²

Table 8: Potential Revenue Sources Scenario

Source	Revenue Estimate
Personal income tax	\$466 million*
Bottled water sales tax	\$153.6 million*
Total	\$619.6 million

* Estimate for income tax is based on 2017 tax receipts. Estimate for bottled water sales tax is based on California Department of Tax and Finance Administration estimate for fiscal year 2022-2023, which would be the first full year of tax collection for an initiative passed on the 2020 ballot.

⁴⁹ California Department of Education Website. California Clean Energy Jobs Act (Proposition 39). Available at: <https://www.cde.ca.gov/ls/fa/ce/>.

⁵⁰ 2004 Cal. Legis. Serv. Prop. 63; CAL. REV. & TAX CODE §§17043(a), 19602.5.

⁵¹ Available at: https://lao.ca.gov/ballot/2012/39_11_2012.aspx.

⁵² This figure is generated based on a \$656.3 million annual program cost at 100% enrollment. At a more attainable 84% enrollment target with 10% administrative overhead, the total cost is \$606.4 million.

The Board notes that the feasibility of passing any new tax or fee for this purpose, as required by Proposition 26⁵³, would require a supermajority vote in the state Legislature to come into effect. Additionally, the bottled water sales tax would require a ballot referendum.

The Board invites input on feasible and sustainable revenue sources for a W-LIRA program.

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⁵³ Proposition 26 was passed in 2010 requiring a supermajority vote of the Legislature to pass fees, levies, charges and taxes.

Chapter 4: Options for Benefit Distribution and Administrative Features of a Statewide Low-Income Ratepayer Assistance Program

Administrative considerations

The administrative mechanics of a W-LIRA would be vastly different depending on the method of the benefit delivery model (energy utility bill credit vs. tax credit vs. Electronic Benefits Transfer (EBT)). For a benefit delivered via the electric or gas bill, the CPUC and the Board would have administrative and oversight responsibilities, while the electric utilities (both publicly-owned and investor-owned) would be responsible for implementation to low-income customers. For a tax credit, the California Franchise Tax Board (FTB) would be responsible for implementation. In an EBT scenario, counties would have the bulk of the implementation and management responsibilities while the California Department of Social Services would likely have oversight responsibilities. Regardless of program design, revenue collection would be handled by the FTB and Department of Tax and Fee Administration (formally known as the Board of Equalization) depending on the revenue sources used for the program.

The administrative and management needs under any program design include tracking and delivering benefits, marketing, education, outreach, fund management, and designing and evaluating metrics for program effectiveness. The administrative costs would differ, however, between the program designs. For a tax credit, tax forms (and tax preparation software) would have to be modified. Under a community water system benefit distribution program, the system would be responsible for delivering benefits via bills, which would entail modifications to billing systems (and would have the previously-discussed other drawbacks). For an electric or gas program, the utilities would also require new accounting procedures to track W-LIRA funds apart from ratepayer contributions. For a benefit delivered via the California Department of Social Services' CalFresh program, counties would need new procedures to ensure each CalFresh recipient's EBT card was loaded with the appropriate dollar value. In independent EBT programs, a new set of administrative procedures, personnel, and information technology resources would be necessary.

The section below describes the challenges associated with each of the program scenarios. This is not meant to be an exhaustive list (see Appendix F for more detail), but rather provides additional factors that merit consideration in selecting a preferred program design.

The Board welcomes input on program design and administrative elements that should be included in the final report.

Benefit distribution via electric or gas bills

There are 65 electric and gas utilities in the state and each would need to modify its billing system to add the monthly W-LIRA credit. In addition, each utility would need to bill the state for its expenditures for delivering the W-LIRA credit along with applicable administrative costs. Those costs might include training for customer service personnel about the W-LIRA program, modifications to marketing, and education, and outreach programs. The utilities would have to work closely with the State Water Board to provide the appropriate benefit to each customer based upon water system rates and to modify benefit levels when recipients move from one water system to another within their service area. The CPUC, the State Water Board, the Legislature, and potentially the Commission on State Mandates would each have a role in determining which administrative costs and costs to maintain data privacy would be recoverable from the W-LIRA fund. In addition, some publicly-owned electric utilities would need to modify their LIRA enrollment criteria and take significant steps to increase overall enrollment levels.

Benefit distribution via CalFresh

Each of the 58 counties would need to modify its CalFresh program to incorporate the new W-LIRA benefit. They would have to work closely with the State Water Board to load the appropriate monthly benefit onto recipient EBT cards based upon water system rates and modify benefit levels when recipients move from one water system to another within the county. As with electric utilities, the counties would also face administrative costs associated with marketing, education and outreach, and billing the state for the costs of running the program. (Even if revenues were sent directly to the counties, they would still have to develop accounting mechanisms to ensure that revenues were aligned with expenditures). Furthermore, enrollment in CalFresh is limited to citizens, and any additional federal changes to the program such as additional eligibility verification requirements could impact enrollment levels and reduce the number of households that would benefit from the W-LIRA. (See Appendix I).

Benefit distribution via a new EBT program

As described above, creating a new program to deliver monthly benefits via EBT cards would involve start-up and ongoing administrative costs, including costs to ensure data privacy, for the counties. The counties would have to work closely with the State Water Board to provide the appropriate benefit onto recipient EBT cards based upon water system rates and modify benefit levels when recipients move from one water system to another within the county. Also, while a new stand-alone program could be clearly marketed as a water benefit and be extended to all low-income households regardless of citizenship status. Data management, including confidentiality and privacy protections, would need to be addressed. (See Appendix J).

Benefit distribution via tax credits

The FTB could apply the credits on individual tax filings annually based upon whether a filer met program eligibility criteria. The FTB would have to work closely with the State Water Board to provide the appropriate benefit to each taxpayer based upon water system rates and modify benefit levels when recipients move from one water system to another within the State. The Legislature or FTB would also have to determine how to calculate a benefit for a household that moved one or more times during the year.

Benefit distribution via water bills

As with the energy utilities, each of the nearly 3,000 CWS would need to modify its billing system to add the monthly W-LIRA credit and each 3,000 CWS would need to bill the state for its expenditures for delivering the W-LIRA credit along with applicable administrative costs (not to exceed 10%). Those costs might include training for customer service personnel about the W-LIRA program, and modifications to marketing, education, and outreach programs. In addition, low-income households would have to demonstrate their eligibility to their CWS, making the CWS responsible for verifying the income eligibility and distributing the benefits authorized by the Board.

Reasons to consider providing water benefits through other programs

Many low-income households pay for water indirectly through rent because they do not have individual water meters. Estimates vary as there is no perfect source for this information, but at least 29% to as

much as 46% of households in the state do not pay a water bill directly or are master-metered.⁵⁴ Table 9 below shows how water meters are much less prevalent than electric and gas meters.

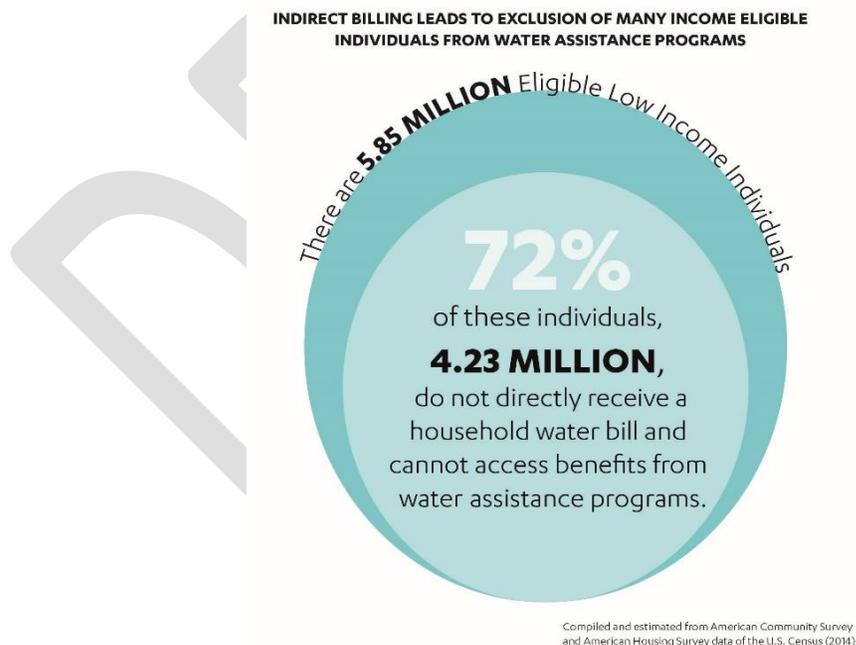
Table 9. Californian Households Reporting That They Do Not Pay a Direct Bill for Utility Service

Bill/service type	Prevalence
Water	44%
Natural Gas	13%
Electricity	5%

Source: 2015 American Housing Survey data on California sub-sample

As illustrated in Figure 8, there are households with incomes under 200% federal poverty level (FPL) and living in multi-family housing, an estimated 72% (or 1.4 million households) do not directly receive a water bill and thus cannot access benefits from water affordability assistance programs.⁵⁵ In the water sector, master-metering has effectively meant that no affordability benefit has been delivered to eligible households.⁵⁶

Figure 8: Low-Income Households That Do Not Receive a Water Bill



⁵⁴ Varying estimates derived from 2015 Census, American Community Survey data for California, the Water Research Foundation’s national 2017 report *Customer Assistance Programs for Multi-Family Residential and Other Hard-to-Reach Customers* and from the 2015 American Housing Survey to refine our assumptions of the number of master-metered accounts and the number of households each account serves.

⁵⁵ This estimate was made using data on the percentage of low-income (below 200% of FPL) tenants in different housing types who were master-metered and sub-metered from the 2015 American Housing Survey, which was then mapped onto the number of low-income households across the state derived from the from the 2010-2014 American Community Survey.

⁵⁶ While some drinking water systems maintain in their official documents that they allow income eligible master-metered households to apply for drinking water affordability programs in conjunction with their landlords, we have yet to identify a system which actually delivered a benefit to a non-metered customer.

Master-metering is particularly problematic for water affordability programs because eligible low-income households are much more likely to live in multi-unit dwellings. Each of the options discussed above and in Appendix M would allow low-income households to receive a benefit regardless of whether they pay a water bill directly or indirectly.

Conclusion

Drinking water costs have been rising much more quickly than inflation and the multitude of upward cost drivers are likely to intensify, leading to even greater water rate increases across the state. These rate increases will reduce affordability for low-income households already struggling with rising expenses for housing, food, other utilities, and other basic needs. This report offers a set of options for rate assistance programs with statewide coverage and meaningful benefit levels. These options have a significant cost, but these are costs that California can afford given our existing financial assistance to low-income households for other basic needs. The Board urges stakeholders to provide constructive feedback on this report so that the Legislature can act on water affordability.

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Senate Bill No. 998

CHAPTER 891

An act to add Chapter 6 (commencing with Section 116900) to Part 12 of Division 104 of the Health and Safety Code, relating to water.

[Approved by Governor September 28, 2018. Filed with Secretary of State September 28, 2018.]

LEGISLATIVE COUNSEL'S DIGEST

SB 998, Dodd. Discontinuation of residential water service: urban and community water systems.

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health. Existing law declares it to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including water corporations. Existing law requires certain notice to be given before a water corporation, public utility district, municipal utility district, or a municipally owned or operated public utility furnishing water may terminate residential service for nonpayment of a delinquent account, as prescribed.

This bill would require an urban and community water system, defined as a public water system that supplies water to more than 200 service connections, to have a written policy on discontinuation of water service to certain types of residences for nonpayment available in prescribed languages. The bill would require the policy to include certain components, be available on the system's Internet Web site, and be provided to customers in writing, upon request. The bill would provide for enforcement of these provisions, including making a violation of these provisions punishable by a civil penalty issued by the board in an amount not to exceed \$1,000 for each day in which the violation occurs, and would require the enforcement moneys collected by the board to be deposited in the Safe Drinking Water Account. The bill would prohibit an urban and community water system from discontinuing residential service for nonpayment until a payment by a customer has been delinquent for at least 60 days. The bill would require an urban and community water system to contact the customer named on the account and provide the customer with the urban and community water system's policy on discontinuation of residential service for nonpayment no less than 7 business days before discontinuation of residential service, as prescribed.

This bill would prohibit residential service from being discontinued under specified circumstances. The bill would require an urban and community

water system that discontinues residential service to provide the customer with information on how to restore service. The bill would require an urban and community water system to waive interest charges on delinquent bills for, and would limit the amount of a reconnection of service fee imposed on, a residential customer who demonstrates, as prescribed, to the urban and community water system household income below 200% of the federal poverty line. The bill would require an urban and community water system that furnishes individually metered residential service to residential occupants of a detached single-family dwelling, a multiunit structure, mobilehome park, or permanent residential structure in a labor camp, and that the owner, manager, or operator of the dwelling, structure, or park is the customer of record, to make every good faith effort to inform the residential occupants by written notice that service will be terminated and that the residential occupants have the right to become customers, as specified. The bill would require an urban and community water system to report the number of annual discontinuations of residential service for inability to pay on its Internet Web site and to the board, and the bill would require the board to post on its Internet Web site the information reported. The bill would require an urban water supplier, as defined, or an urban and community water system regulated by the commission, to comply with the bill's provisions on and after February 1, 2020, and any other urban and community water system to comply with the bill's provisions on and after April 1, 2020. The bill would provide that the provisions of the bill are in addition to the provisions in existing law duplicative of the bill and that where the provisions are inconsistent, the provisions described in the bill apply.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares as follows:

- (a) All Californians have the right to safe, accessible, and affordable water as declared by Section 106.3 of the Water Code.
- (b) It is the intent of the Legislature to minimize the number of Californians who lose access to water service due to inability to pay.
- (c) Water service discontinuations threaten human health and well-being, and have disproportionate impact on infants, children, the elderly, low-income families, communities of color, people for whom English is a second language, physically disabled persons, and persons with life-threatening medical conditions.
- (d) When there is a delinquent bill, all Californians, regardless of whether they pay a water bill directly, should be treated fairly, and fair treatment includes the ability to contest a bill, seek alternative payment schedules, and demonstrate medical need and severe economic hardship.
- (e) The loss of water service causes tremendous hardship and undue stress, including increased health risks to vulnerable populations.
- (f) It is the intent of the Legislature that this act provide additional procedural protections and expand upon the procedural safeguards contained

in the Public Utilities Code and Government Code as of January 1, 2018, relating to utility service disconnections.

SEC. 2. Chapter 6 (commencing with Section 116900) is added to Part 12 of Division 104 of the Health and Safety Code, to read:

CHAPTER 6. DISCONTINUATION OF RESIDENTIAL WATER SERVICE

116900. This chapter shall be known, and may be cited, as the Water Shutoff Protection Act.

116902. For the purposes of this chapter, the following definitions apply:

(a) "Board" means the State Water Resources Control Board.

(b) "Public water system" has the same meaning as defined in Section 116275.

(c) "Residential service" means water service to a residential connection that includes single-family residences, multifamily residences, mobilehomes, including, but not limited to, mobilehomes in mobilehome parks, or farmworker housing.

(d) "Urban and community water system" means a public water system that supplies water to more than 200 service connections.

(e) "Urban water supplier" has the same meaning as defined in Section 10617 of the Water Code.

116904. (a) An urban water supplier not regulated by the Public Utilities Commission shall comply with this chapter on and after February 1, 2020.

(b) An urban and community water system regulated by the Public Utilities Commission shall comply with this chapter on and after February 1, 2020. The urban and community water system regulated by the Public Utilities Commission shall file advice letters with the commission to conform with this chapter.

(c) An urban and community water system not described in subdivision (a) or (b) shall comply with this chapter on and after April 1, 2020.

116906. (a) An urban and community water system shall have a written policy on discontinuation of residential service for nonpayment available in English, the languages listed in Section 1632 of the Civil Code, and any other language spoken by at least 10 percent of the people residing in its service area. The policy shall include all of the following:

(1) A plan for deferred or reduced payments.

(2) Alternative payment schedules.

(3) A formal mechanism for a customer to contest or appeal a bill.

(4) A telephone number for a customer to contact to discuss options for averting discontinuation of residential service for nonpayment.

(b) The policy shall be available on the urban and community water system's Internet Web site, if an Internet Web site exists. If an Internet Web site does not exist, the urban and community water system shall provide the policy to customers in writing, upon request.

(c) (1) The board may enforce the requirements of this section pursuant to Sections 116577, 116650, and 116655. The provisions of Section 116585

and Article 10 (commencing with Section 116700) of Chapter 4 apply to enforcement undertaken for a violation of this section.

(2) All moneys collected pursuant to this subdivision shall be deposited in the Safe Drinking Water Account established pursuant to Section 116590.

116908. (a) (1) (A) An urban and community water system shall not discontinue residential service for nonpayment until a payment by a customer has been delinquent for at least 60 days. No less than seven business days before discontinuation of residential service for nonpayment, an urban and community water system shall contact the customer named on the account by telephone or written notice.

(B) When the urban and community water system contacts the customer named on the account by telephone pursuant to subparagraph (A), it shall offer to provide in writing to the customer the urban and community water system's policy on discontinuation of residential service for nonpayment. An urban and community water system shall offer to discuss options to avert discontinuation of residential service for nonpayment, including, but not limited to, alternative payment schedules, deferred payments, minimum payments, procedures for requesting amortization of the unpaid balance, and petition for bill review and appeal.

(C) When the urban and community water system contacts the customer named on the account by written notice pursuant to subparagraph (A), the written notice of payment delinquency and impending discontinuation shall be mailed to the customer of the residence to which the residential service is provided. If the customer's address is not the address of the property to which residential service is provided, the notice also shall be sent to the address of the property to which residential service is provided, addressed to "Occupant." The notice shall include, but is not limited to, all of the following information in a clear and legible format:

- (i) The customer's name and address.
- (ii) The amount of the delinquency.
- (iii) The date by which payment or arrangement for payment is required in order to avoid discontinuation of residential service.
- (iv) A description of the process to apply for an extension of time to pay the delinquent charges.
- (v) A description of the procedure to petition for bill review and appeal.
- (vi) A description of the procedure by which the customer may request a deferred, reduced, or alternative payment schedule, including an amortization of the delinquent residential service charges, consistent with the written policies provided pursuant to subdivision (a) of Section 116906.

(2) If the urban and community water system is unable to make contact with the customer or an adult occupying the residence by telephone, and written notice is returned through the mail as undeliverable, the urban and community water system shall make a good faith effort to visit the residence and leave, or make other arrangements for placement in a conspicuous place of, a notice of imminent discontinuation of residential service for nonpayment and the urban and community water system's policy for discontinuation of residential service for nonpayment.

(b) If an adult at the residence appeals the water bill to the urban and community water system or any other administrative or legal body to which such an appeal may be lawfully taken, the urban and community water system shall not discontinue residential service while the appeal is pending.

116910. (a) An urban and community water system shall not discontinue residential service for nonpayment if all of the following conditions are met:

(1) The customer, or a tenant of the customer, submits to the urban and community water system the certification of a primary care provider, as that term is defined in subparagraph (A) of paragraph (1) of subdivision (b) of Section 14088 of the Welfare and Institutions Code, that discontinuation of residential service will be life threatening to, or pose a serious threat to the health and safety of, a resident of the premises where residential service is provided.

(2) The customer demonstrates that he or she is financially unable to pay for residential service within the urban and community water system's normal billing cycle. The customer shall be deemed financially unable to pay for residential service within the urban and community water system's normal billing cycle if any member of the customer's household is a current recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplemental Nutrition Program for Women, Infants, and Children, or the customer declares that the household's annual income is less than 200 percent of the federal poverty level.

(3) The customer is willing to enter into an amortization agreement, alternative payment schedule, or a plan for deferred or reduced payment, consistent with the written policies provided pursuant to subdivision (a) of Section 116906, with respect to all delinquent charges.

(b) (1) If the conditions listed in subdivision (a) are met, the urban and community water system shall offer the customer one or more of the following options:

(A) Amortization of the unpaid balance.

(B) Participation in an alternative payment schedule.

(C) A partial or full reduction of the unpaid balance financed without additional charges to other ratepayers.

(D) Temporary deferral of payment.

(2) The urban and community water system may choose which of the payment options described in paragraph (1) the customer undertakes and may set the parameters of that payment option. Ordinarily, the repayment option offered should result in repayment of any remaining outstanding balance within 12 months. An urban and community water system may grant a longer repayment period if it finds the longer period is necessary to avoid undue hardship to the customer based on the circumstances of the individual case.

(3) Residential service may be discontinued no sooner than 5 business days after the urban and community water system posts a final notice of intent to disconnect service in a prominent and conspicuous location at the property under either of the following circumstances:

(A) The customer fails to comply with an amortization agreement, an alternative payment schedule, or a deferral or reduction in payment plan for delinquent charges for 60 days or more.

(B) While undertaking an amortization agreement, an alternative payment schedule, or a deferral or reduction in payment plan for delinquent charges, the customer does not pay his or her current residential service charges for 60 days or more.

116912. An urban and community water system that discontinues residential service for nonpayment shall provide the customer with information on how to restore residential service.

116914. (a) For a residential customer who demonstrates to an urban and community water system household income below 200 percent of the federal poverty line, the urban and community water system shall do both of the following:

(1) Set a reconnection of service fee for reconnection during normal operating hours at fifty dollars (\$50), but not to exceed the actual cost of reconnection if it is less. Reconnection fees shall be subject to an annual adjustment for changes in the Consumer Price Index beginning January 1, 2021. For the reconnection of residential service during nonoperational hours, an urban and community water system shall set a reconnection of service fee at one hundred fifty dollars (\$150), but not to exceed the actual cost of reconnection if it is less. Reconnection fees shall be subject to an annual adjustment for changes in the Consumer Price Index beginning January 1, 2021.

(2) Waive interest charges on delinquent bills once every 12 months.

(b) An urban and community water system shall deem a residential customer to have a household income below 200 percent of the federal poverty line if any member of the household is a current recipient of CalWORKs, CalFresh, general assistance, Medi-Cal, Supplemental Security Income/State Supplementary Payment Program, or California Special Supplemental Nutrition Program for Women, Infants, and Children, or the customer declares that the household's annual income is less than 200 percent of the federal poverty level.

116916. (a) This section applies if there is a landlord-tenant relationship between the residential occupants and the owner, manager, or operator of the dwelling.

(b) If an urban and community water system furnishes individually metered residential service to residential occupants of a detached single-family dwelling, a multiunit residential structure, mobilehome park, or permanent residential structure in a labor camp as defined in Section 17008, and the owner, manager, or operator of the dwelling, structure, or park is the customer of record, the urban and community water system shall make every good faith effort to inform the residential occupants, by means of written notice, when the account is in arrears that service will be terminated at least 10 days prior to the termination. The written notice shall further inform the residential occupants that they have the right to become

customers, to whom the service will then be billed, without being required to pay any amount which may be due on the delinquent account.

(c) The urban and community water system is not required to make service available to the residential occupants unless each residential occupant agrees to the terms and conditions of service and meets the requirements of law and the urban and community water system's rules and tariffs. However, if one or more of the residential occupants are willing and able to assume responsibility for the subsequent charges to the account to the satisfaction of the urban and community water system, or if there is a physical means legally available to the urban and community water system of selectively terminating service to those residential occupants who have not met the requirements of the urban and community water system's rules and tariffs, the urban and community water system shall make service available to those residential occupants who have met those requirements.

(d) If prior service for a period of time is a condition for establishing credit with the urban and community water system, residence and proof of prompt payment of rent or other credit obligation acceptable to the urban and community water system for that period of time is a satisfactory equivalent.

(e) Any residential occupant who becomes a customer of the urban and community water system pursuant to this section whose periodic payments, such as rental payments, include charges for residential water service, where those charges are not separately stated, may deduct from the periodic payment each payment period all reasonable charges paid to the urban and community water system for those services during the preceding payment period.

(f) In the case of a detached single-family dwelling, the urban and community water system may do any of the following:

(1) Give notice of termination at least seven days prior to the proposed termination.

(2) In order for the amount due on the delinquent account to be waived, require an occupant who becomes a customer to verify that the delinquent account customer of record is or was the landlord, manager, or agent of the dwelling. Verification may include, but is not limited to, a lease or rental agreement, rent receipts, a government document indicating that the occupant is renting the property, or information disclosed pursuant to Section 1962 of the Civil Code.

116918. An urban and community water system shall report the number of annual discontinuations of residential service for inability to pay on the urban and community water system's Internet Web site, if an Internet Web site exists, and to the board. The board shall post on its Internet Web site the information reported.

116920. (a) The Attorney General, at the request of the board or upon his or her own motion, may bring an action in state court to restrain by temporary or permanent injunction the use of any method, act, or practice declared in this chapter to be unlawful.

(b) For an urban and community water system regulated by the Public Utilities Commission, the commission may bring an action in state court to restrain by temporary or permanent injunction the use by an urban and community water system regulated by the commission of any method, act, or practice declared in this chapter to be unlawful.

116922. All written notices required under this chapter shall be provided in English, the languages listed in Section 1632 of the Civil Code, and any other language spoken by 10 percent or more of the customers in the urban and community water system's service area.

116924. Where provisions of existing law are duplicative of this chapter, compliance with one shall be deemed compliance with the other. Where those provisions are inconsistent, the provisions of this chapter shall apply. Nothing in this chapter shall be construed to limit or restrict the procedural safeguards against the disconnection of residential water service existing as of December 31, 2018.

116926. This chapter does not apply to the termination of a service connection by an urban and community water system due to an unauthorized action of a customer.

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SB998 (Dodd) and the Quest for Water Affordability

Presented by Adan Ortega Jr.
Executive Director
California Association of Mutual Water Companies



When is water unaffordable?



Water is affordable when households do not face tradeoffs between paying for basic water and sanitation needs and other essential expenses.

- Leo Heller, United Nations
Special Rapporteur on Water and Sanitation, 2015

What is driving poverty in California?

- California has the highest rate of poverty in the U.S. mostly because of the cost of living
- The #1 poverty-driver is the cost of housing
- According to Laura Feinstein of PPIC the cost of water is not a driver of poverty....but the **water bill is in competition with other household expenses** such as rent, other utilities, medical expenses & emergency expenses – *SWRCB Affordability Workshop April 5, 2018*



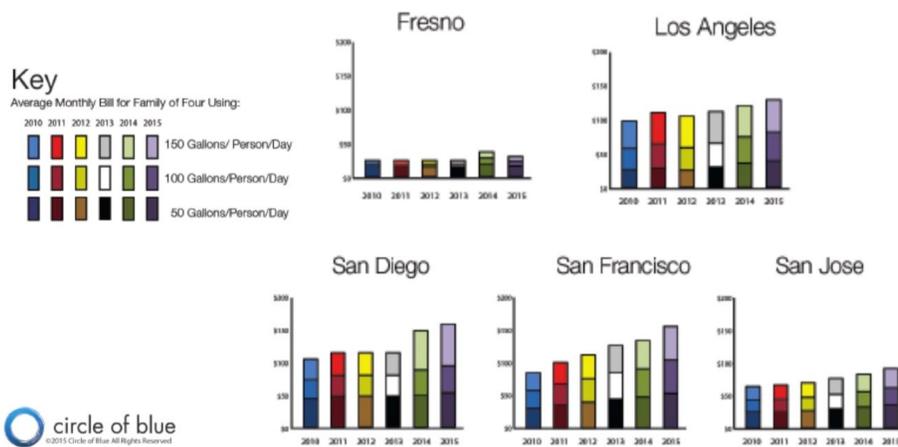
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1/10/2019

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Cost of Drinking Water in California?

The average price of water has risen faster than inflation for the past 20 years. Real wages for most U.S. workers haven't changed since the 1960s (Pew Research)



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1/10/2019

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Genesis of SB998 (Dodd)

- SB401 (Dodd), signed by Governor Brown in 2015, required the State Water Board to develop a low-income rate assistance program to be submitted to the legislature in a report due on February 2018
- The State Water Board missed the February 2018 deadline
- Senator Dodd expressed alarm over the cost of compliance with the now-invalidated standard for hexavalent chromium that could have been as high as \$5,000 annually per connection for some small systems
- During a State Water Board Workshop on Affordability in April 2018, Sen. Dodd expressed frustration with the lack of implementation of SB401 in the face of increasing water rates as the motivation for introducing SB998
- A task force was convened three times to discuss factors related to SB401 and estimated that the cost of providing assistance to low-income earners was about \$600 Million (about \$6/ month per connection)
- State Water Board staff may release AB401 program recommendation in Fall/Winter 2018
- No established source of funding



SB998 (Dodd)

- Applies to individually metered residential service to:
 - ✓ Detached single-family dwellings
 - ✓ Multi-unit residential structures
 - ✓ Mobile home parks
 - ✓ Where property owner or manager is the customer of record
- Supplier may have different policies that apply to commercial or other non-residential accounts
- Landlord-Tenant Provisions similar to SB120 apply
 - ✓ Tenants can become customers
 - ✓ Occupants to be given written notice 10 days prior to possible shut-off



Implementation Deadlines & Requirements

- ✓ Public Utility Commission (PUC) Regulated Utilities by Feb 1, 2020
- ✓ All other suppliers with more than 200 connections by April 1, 2020

Requirements:

- ✓ Development of Service Discontinuation Policy
- ✓ Translation in 5 languages in addition to English
- ✓ Include a plan for deferred or reduced payments
- ✓ Provide alternative payment schedules
- ✓ Formal appeals process
- ✓ Telephone number customers can call to discuss options



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1/10/2019

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Discontinuation Process



60-day waiting period
during delinquency



7 days notice before shut-off

- ✓ Could be given by telephone with offer to provide written policy and alternative payment schedule
- ✓ Written notices must be mailed to customer's residence and/or property served with description of extended payment policies
- ✓ Good faith effort required if contacts are unsuccessful (returned mail)

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1/10/2019

California Association of Mutual Water Companies

Prohibition on Shut-offs



During appeal process



Agreement to a payment option before 60 days expire



If ALL the following conditions are met:

- ✓ Health condition certification by a primary care provider
- ✓ If customer participates in CalFresh, CalWorks, Medi-Cal, etc. or if the customer declares income less than 200% of the Federal Poverty Level
- ✓ The customer agrees to amortization agreement, alternative payment schedule or deferred plan, or reduced payment consistent with adopted policy

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1/10/2019

California Association of Mutual Water Companies

Restoration of Service



Customers must be provided with written instructions for restoration of service



Limits on restoration fees for low-income residents

- ✓ Reconnection during non-operational hours up to \$150
- ✓ Reconnection during work hours \$50
- ✓ Interest waiver (once every 12 months)

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1/10/2019

California Association of Mutual Water Companies

Reporting & Enforcement



- Annually report number of shut-offs for inability to pay
 - State Water Resources Control Board
 - Water supplier's website
- Failure to implement policy, provide annual report, not follow policy can be fined at \$1,000 per day, trigger compliance order with state's ability to recover enforcement and litigation costs
- California Attorney General may be called upon to take action
- Private citizens can sue

Implementation Assistance

Join the California Association for Mutual Water Companies (CalMutuals)

Members receive:

- * Detailed report on compliance issues
- * Sample policy

Contact information:

- Telephone 714 449-8403
- Email susan@calmutuals.org





For full SB998 Briefing & Sample Policy

Join CalMutuals

[www . Calmutuals . Org](http://www.CalMutuals.Org)

susan@CalMutuals.org

714 449-8403





**Report: Organization of a Community Water Systems Alliance
December 3, 2019**

A meeting was held on Friday, November 30, 2018, to discuss possible support for an alliance of community water systems representing income limited and disadvantaged communities, at Eastern Municipal Water District. The meeting was attended by:

Paul Jones, General Manager, Eastern Municipal Water District
Danielle Coats, Senior Legislative Program Manager, Eastern Municipal Water District
Lisa Yamashita Lopez, President, CalMutuals & GM Rubio Cañon Land and Water Assn.
David Armstrong, Vice President, CalMutuals & GM South Mesa Water Co.
Jim Ciampa, General Counsel, CalMutuals & Public Water Agency Group (PWAG)
Owen Sharp, General Manager, San Andreas Mutual Water Company
Sandy Caruba, Board Member, San Andreas Mutual Water Company
Carol Giannini, Board Member, Twentynine Palms Water District
Bob Coghill, Board Member, Twentynine Palms Water District
Ray Kolisz, General Manager, Twentynine Palms Water District
Denise Peralta Gailey, Advocate, Twentynine Palms Water District
Dan Ferons, General Manager, Santa Margarita Water District
Don Barns, Assistant General Manager, Santa Margarita Water District
Jim Leach, Director of Government Affairs, Santa Margarita Water District
Kelly Gardner, Assistant Executive Director, San Gabriel Valley Water Association
Paul Gonsalves, Advocate, San Gabriel Valley Water Association
Stacy Taylor, External Affairs Manager, Mesa Water District
Jeff Armstrong, General Manager, Rancho California Water District
Meggan Valencia, Public Affairs Manager, Rancho California Water District
Calvin Louie, General Manager, Cabazon Water District
Curt Saur, Joshua Basin Water District
Jeff Deming, Principal, Monterey Bay Academy
Jackie McCloud, Utilities Manager, City of Watsonville
Lisa Ohlund, General Manager, East Orange Water District
Tim Worley, Executive Director, AWWA Cal-Nevada Section
Adan Ortega, Executive Director, CalMutuals

Meeting Purpose: To potentially augment resources through CalMutuals to include income-limited and disadvantaged communities, who are served by well run and operated water supply agencies, in organized efforts to prevent that their resources will be diverted by the state through the assessment of local taxes or economically infeasible regulations (i.e. Chromium 6).

Community Water Systems Alliance (CWSA) Principles

The group discussed seven principles around which CWSA would organize and advocate. CWSA will be comprised of a group of special districts, county water districts, community service districts, and cities that are well run and operated while serving disadvantaged communities and other populations that entail revenue limitations, such as seniors.

General draft organizing principles were revised to include the following:

1. CWSA is comprised of viable and well running water supply systems focused on empowering those among them who directly represent and serve the residents of disadvantaged communities and other populations with income limitations such as seniors
2. CWSA supports a statewide comprehensive needs-assessment of the operational integrity and resiliency of chronically distressed water systems
3. CWSA supports funding to build water system resiliency that does not shift existing resources of disadvantaged communities from some regions to other regions of the state
4. CWSA supports regulations that are deemed economically feasible through a combination of factors including affordability, transparent understanding of health benefits and their real-time cost and value to the residents of California
5. CWSA supports consolidation of chronically distressed water systems when it is part of an initiative supported by the residents of such communities, and where property rights and the right of representation is respected
6. CWSA members pledge to work with larger neighboring and/or regional water agencies toward efforts that bring resource efficiency, stewardship of local shared resources that are based upon common values, needs and respect not charity
7. CWSA is an alliance for education and advocacy of the common interests and empowerment of water systems serving disadvantaged communities and other income limited populations, not a permanent water association

Management – The group generally agreed that as fiscal sponsor, CalMutuals could bring efficiency to CWSA by availing it of its administrative, advocacy and logistical support eliminating the need for the duplication of resources, in parallel with CalMutuals’ regional capacity across the state. CalMutuals is proposing that an advisory board be comprised of the initial charter members according to the contribution levels below.

Budget - The group felt that the estimated budget of \$60,000 for one year to cover the legislative calendar was modest given the issues driving the organization of CWSA. The group asked CalMutuals to propose a sponsorship schedule scaled to the revenue capacity of prospective members (see contributions below).

Proposed Schedule for Regular Sponsors of the Initiative

CalMutuals has a “progressive” membership schedule that encourages participation by small and larger members. Pending consensus from the group, CalMutuals proposes the following scales of sponsorship for the initiative:

Tier 1: Revenues <\$250K	\$500
Tier 2: Revenues \$250K +	\$750
Tier 3: Revenues \$500K+	\$1,250
Tier 4: Revenues \$1M+	\$2,500
Tier 5: Revenues \$4M+	\$5,000

**MEMORANDUM OF UNDERSTANDING
COMMUNITY WATER SYSTEMS ALLIANCE**

This Memorandum of Understanding (‘‘MOU’’) is entered into this ____ day of _____, 2018 (‘‘Effective Date’’) by and between the California Association of Mutual Water Companies, a California non-profit mutual benefit corporation (‘‘Cal Mutuals’’), and _____ (‘‘Participant’’) with respect to the following.

RECITALS

- A. There are numerous regulatory and legislative issues facing water suppliers in California, including, but not limited to, water quality standards, requirements to limit water losses, a potential water tax, funding mechanisms for low-income rate assistance and long-term water use efficiency requirements.
- B. There are numerous water suppliers serving disadvantaged and severely disadvantaged communities that while operating efficiently and well, do not, on an individual basis, have the financial resources to be able to effectively advocate with respect to the issues identified in Recital A.
- C. Cal Mutuals is a non-profit association formed to provide effective advocacy for, and to facilitate operational and educational resources to ensure effective and compliant operation and governance of, mutual water companies and other small water systems in California.
- D. Cal Mutuals has worked with various water systems to develop a collaborative program to assist water systems serving disadvantaged and severely disadvantaged communities with regulatory and legislative advocacy, as described in Section 1, below (the ‘‘Initiative’’).
- E. The Community Water Systems Alliance (‘‘CWSA’’) is an alliance of water systems who are undertaking the Initiative, working with and through Cal Mutuals as described herein.
- F. Participant desires to participate in CWSA and desires to make a financial contribution to help offset the costs of the Initiative, in accordance with the provisions set forth below.

NOW, THEREFORE, Participant and Cal Mutuals agree as follows:

1. The Initiative. Cal Mutuals will provide the services necessary to administer and coordinate the functions relating to the Initiative, as guided by the principles attached hereto as Exhibit A and incorporated herein by this reference. Participant, in its sole discretion and at its sole cost, may provide services of its employees to assist with implementing the Initiative.

2. Participant's Financial Contribution. Participant shall contribute the sum of \$_____ to CWSA, through Cal Mutuals, in order to join and participate in CWSA. That amount may be paid in a lump sum or through a payment arrangement to be agreed upon by Participant and Cal Mutuals. Cal Mutuals shall separately account for all such contributions and shall utilize Participant's and other CWSA members' contributions only for costs related to the Initiative and its administration. Cal Mutuals shall issue a quarterly report of CWSA's income and expenses, including the use of Participant's contribution, on or before the thirtieth (30th) day following the end of each calendar quarter (i.e., March 31, June 30, September 30 and December 31). Participant acknowledges that the financial contributions of other CWSA members may vary and may be greater than or less than Participant's contributions, although Cal Mutuals will use its best efforts to ensure a fair structure concerning such overall contributions, including through application of the revenue-based contribution model set forth in Exhibit A hereto.

3. CWSA Participant Issues. Participant shall allow Cal Mutuals to use Participant's name in any correspondence that Cal Mutuals may send regarding the Initiative and in any materials used in soliciting additional members in CWSA; provided, however, that if such correspondence relates to a position on legislation, Participant shall be provided the opportunity to opt out of being specifically named in any such correspondence and Cal Mutuals will remove Participant's name if so instructed. Upon written request of Participant, Cal Mutuals shall promptly (i.e., within three business days) provide Participant by e-mail with a list of all participants in CWSA and their respective contributions.

4. Audit/Inspection. Upon at least forty-eight (48) hours' prior written notice, Participant may audit or inspect, at Participant's sole cost and expense, Cal Mutuals' accounting books and records relating to CWSA and the Initiative.

5. Term; Termination. This MOU shall have an indefinite term, although it is contemplated to last approximately two years. Because CWSA is intended to be a temporary program, it may be terminated at any time by the vote of at least sixty percent (60%) of its members. Participant may withdraw from CWSA at any time, upon at least seven (7) days' written notice. Such withdrawal shall not entitle Participant to a refund of any portion of its contribution under Section 2, above, unless any audit or inspection under Section 4, above, reveals the misappropriation of funds by Cal Mutuals, in which case CWSA shall be entitled to the return of its entire contribution or such other amount thereof as the parties may agree.

6. Indemnification. Cal Mutuals shall indemnify and defend Participant against any third party claims, losses, liabilities damages, lawsuits, claims, judgments or other costs resulting from Cal Mutuals' gross negligence or intentional misconduct in performing its duties hereunder.

7. Notices. Any notice or other communication to be provided under this MOU shall be in writing, and shall be deemed effectively given upon personal delivery; or upon deposit in any United States mail box, by registered, certified, Priority, or Express mail, postage prepaid; or upon delivery by nationally recognized overnight courier; or upon confirmed transmission by facsimile, addressed to the other party at the address shown below.

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

9. Amendment. This MOU may be modified only by a written agreement signed by both parties.

10. Severability. If any court determines that any provision of this MOU is invalid or unenforceable, any invalidity or unenforceability will affect only that provision and will not make any other provision of this MOU invalid or unenforceable and such provision shall be modified, amended or limited only to the extent necessary to render it valid and enforceable

11. Counterparts; Execution Transmitted by E-Mail or Fax. This MOU may be executed in counterparts, effective as of the Effective Date first set forth above. The parties agree that this MOU will be considered signed when the signature of a party is delivered by e-mail or by facsimile transmission. Such e-mailed or facsimile signature shall be treated in all respects as having the same effect of an original signature.

IN WITNESS WHEREOF, the Participant and Cal Mutuals have executed this MOU as of the date first above written.

California Association of Mutual Water Companies

By _____
Lisa Yamashita-Lopez, President

Address: 1370 N. Brea Blvd., Suite 238
Fullerton, CA 92835
Fax Number: _____

Participant

By _____
Its _____

Address: _____

Fax Number: _____

**BIGHORN-DESERT VIEW WATER AGENCY STANDING COMMITTEE
PLANNING/LEGISLATIVE/ENGINEERING/GRANTS/SECURITY
AGENDA ITEM SUBMITTAL**

Meeting Date: January 15, 2019

To: PLEGS Committee Members

Budgeted: N/A

Budgeted Amount: N/A

From: Marina D. West

General Counsel Approval: N/A

CEQA Compliance: N/A

Subject: Status of Johnson Valley Monitoring Well Constructed in 2012

SUMMARY

Utilizing the remaining portion of an EPA State and Tribal Assistance Grant (STAG), a monitoring well was constructed in Johnson Valley in an attempt to find a secondary source of potable water for water haulers relying on the Johnson Valley Well 10. The well was drilled to a total depth of 459 feet but the well was only constructed to a total depth of 355 feet. Unfortunately, following limited development the well failed to yield any water.

Since then staff has been routinely measuring water levels in the well believing that perhaps the well was plugged and overtime the level would equilibrate but no such change has been observed.

Staff solicited quotes from two professional consulting firms to determine what options might be available to develop additional groundwater supply to this well. Staff will review the proposals with the Committee and seek input on how to proceed.

RECOMMENDATION

Information only: Staff will review the proposals received for evaluating the Johnson Valley monitoring well for further development as a groundwater supply.

BACKGROUND/ANALYSIS

No further analysis provided.

PRIOR RELEVANT BOARD ACTION(S)

None.

Item #8 - Consent Items



BIGHORN-DESERT VIEW WATER AGENCY

Our Mission - "To provide a high quality supply of water and reliable service to all customers at a fair and reasonable rate."

Planning/Legislative/Engineering Grant & Security Standing Committee Meeting Minutes

Committee Members: Vice President Corl-Lorono & Secretary Burkhart

**BOARD MEETING OFFICE
1720 N. CHEROKEE TR.
LANDERS, CALIFORNIA 92284**

**October 16, 2018
Time – 9:00 A.M.**

Call to Order

Vice President Corl-Lorono called the meeting to order at 9:25 A.M.

Pledge of Allegiance

Led by John Burkhart

Roll Call

Directors: Judy Corl-Lorono
Terry Burkhart

Staff: Marina West
Seth Kish

Approval of the Agenda

Vice President Corl-Lorono and Secretary Burkhart approved the agenda as presented.

Conference Call with Mojave Water Agency's Legal/Legislative and Public Information Committee

Committee participated via teleconference for an update by the State Advocate of Issues at the State Level, as well as an update by the Federal Advocate of Issues at the Federal Level.

The Committee breaks for a short recess at 10:01AM - The Committee is back from recess at 10:07AM

Public comment: None

Prop. 1 Planning Grant for Water System Integration and Interties Update

General Manager West shows the committee a presentation on the updates being made to the Prop. 1 Planning Grant Pulmonary Engineer's Report. The Agency has received a low ranking for construction funding. The Agency was told it does not have any water quality problems, no water storage issues, and the Agencies customers are not in any danger of water outages. Due to these facts, the Agency has decided to take a different approach and has divided the improvements into 3 different phases. GM West explained Phase 1 would be a booster station upgrade. Phase 2 would be the pipeline and pressure reducing stations as well as administrative

permitting to join the two water systems. Lastly, Phase 3 would be a pipeline from Landers to Flamingo Heights and includes interconnections with Hi-Desert Water District. Several projects were removed from the report because the Agency is already pursuing them (i.e. – Pump Replacement Project).

Public comment: None

Consent Items

- a. PLEGS Committee Meeting Minutes, **August 21, 2018**

Public comment: None

Vice President Corl-Lorono and Secretary Burkhart approved the minutes as presented.

Verbal Reports

General Manager West wanted to update the Board on the new improvements to the Agendas and Agenda Packets.

Public Comment Period

No public comment.

Adjournment – Vice President Corl-Lorono adjourned the meeting at 11:06 A.M.

Approved by:

Vice President Corl-Lorono, Committee Chair