EBMUD

BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT

375 – 11th Street, Oakland, CA 94607 Office of the Secretary: (510) 287-0440

AGENDA

Legislative/Human Resources Committee
Tuesday, May 14, 2019
10:15 a.m.
Training Resource Center

(Committee Members: Directors Coleman {Chair}, McIntosh and Patterson)

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. Legislative Update (Dumaine)
   - Receive Legislative Report No. 03-19 and consider positions on the following bills: AB 557 (Wood) Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program; AB 1414 (Friedman) Urban Retail Water Suppliers: Reporting; AB 1588 (Gloria) Drinking Water and Wastewater Operator Certification Programs; and SB 487 (Caballero) Department of Water Resources: Aerial Snow Survey
   - Update on Legislative Issues of Interest to EBMUD

2. Workforce Development Strategies – Center for Employment Opportunities Pilot Project (Acosta)

3. Wastewater Plant Operator Training Program (White)

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: May 9, 2019

MEMO TO: Board of Directors

FROM: Alexander R. Coate, General Manager ARC

SUBJECT: Legislative Report No. 03-19

The following issues are being referred to the Legislative/Human Resources Committee for review and recommendation to the Board of Directors for action, as appropriate, on May 14, 2019.

RECOMMENDED ACTION

Approve positions on the following bills: 1) Support AB 557 (Wood) Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program; 2) Support AB 1414 (Friedman) Urban retail water suppliers: reporting; 3) Support AB 1588 (Gloria) Drinking water and wastewater operator certification programs; and 4) Support SB 487 (Caballero) Department of Water Resources: aerial snow survey.

STATE LEGISLATION		RECOMMENDED POSITION
AB 557 (Wood)	**ATMOSPHERIC RIVERS: RESEARCH, MITIGATION, AND CLIMATE FORECASTING PROGRAM**	**SUPPORT**

Existing law establishes the Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program (atmospheric rivers program) in the Department of Water Resources (DWR) and requires DWR, when money has been appropriated, to conduct research through the atmospheric rivers program on climate forecasting and the causes and impacts that climate change has on atmospheric rivers. In addition, DWR may take actions to capture water generated by atmospheric rivers.

AB 557 (Wood), as introduced on February 13, 2019, would clarify that the atmospheric rivers program is authorized to conduct research for improving the accuracy of forecasting atmospheric river events, in addition to conducting other research. The bill would also appropriate $9,250,000 from the general fund to DWR to operate the atmospheric rivers program.

Atmospheric rivers are long, narrow bands of water vapor, essentially giant rivers in the atmosphere pushed along by strong winds. Atmospheric rivers can carry an amount of water vapor roughly equivalent to more than 25 times the amount of water that flows through the

mouth of the Mississippi River. When they reach landfall, the atmospheric rivers often release the water vapor in the form of rain and snow. Atmospheric rivers can supply on average between 40 and 50 percent of California's precipitation and snowpack annually. However, current short-term forecasts for atmospheric rivers are only reliable out to about three days and it is difficult to predict where the atmospheric rivers will make landfall. While DWR's atmospheric rivers program is tasked with conducting research regarding climate change and the impacts it has on atmospheric rivers, the funding for the atmospheric rivers program must be approved by legislative appropriation. In 2016, $3 million was appropriated for the atmospheric rivers program; additional funds are now needed.

According to the author, California "typically receives most of its annual rainfall in just a handful of atmospheric river events, followed by months or years of drought. Every day water managers make critical decisions about when to move water to provide flood protection and when to store water to prepare for inevitable droughts. Climate change has made this matter more extreme and is making decisions by water managers more difficult. As we experience larger and more intense atmospheric rivers, followed by longer and more severe droughts, our ability to accurately predict when, where, and how these weather patterns will affect our state's water supply requires more research."

Ensuring the atmospheric rivers program has funding to continue its research, including how to improve the capability to track and forecast atmospheric rivers, would increase the state's and local water managers' understanding of atmospheric rivers. This understanding would help reduce flood risks and improve reservoir management.

AB 557 is intended to ensure that DWR's atmospheric rivers program can research how to improve the accuracy of atmospheric river forecasting and provide funding for the atmospheric rivers program to continue its research. AB 557 would help water agencies such as EBMUD by providing more accurate forecasts of when and where an atmospheric river will make landfall and how much precipitation will fall. This will assist water supply managers and flood control operators make reservoir storage decisions based on more precise information.

With regard to anticipated costs and benefits to EBMUD and its ratepayers, additional costs are not anticipated to accrue as a result of AB 577. Benefits could accrue if AB 577 results in more accurate forecasting of atmospheric rivers that could inform EBMUD's reservoir operations.

The issue of improving the accuracy of atmospheric rivers research is a relatively new topic of legislation and thus there is no recent history of similar legislation considered by EBMUD. AB 557's objective is consistent with EBMUD's mission that includes managing the natural resources it is entrusted with and providing reliable, high-quality water.

The official list of support and opposition to AB 557 is shown below.

Support
Association of California Water Agencies

California Municipal Utilities Association
Orange County Water District
San Diego County Water Authority
Sonoma County Water Agency
Turlock Irrigation District
Yuba County Water Agency

Opposition
None listed

AB 1414 (Friedman)	**URBAN RETAIL WATER SUPPLIERS: REPORTING**	**SUPPORT**

Existing law imposes various water use and resource reporting requirements on urban water suppliers, including requirements to submit the following: 1) an Urban Water Management Plan to the Department of Water Resources (DWR) every five years; 2) an annual water loss report to DWR; and 3) beginning no later than November, 1, 2023, an annual water use objective and actual urban water use to DWR. The deadlines for submitting these various reports vary.

AB 1414 (Friedman), as introduced on February 22, 2019, makes technical corrections to the "Making Water Conservation a California Way of Life" legislative package which was approved by the legislature and signed into law in 2018, and supported by EBMUD. AB 1414 is intended to streamline urban retail water suppliers' reporting requirements by consolidating various reports and aligning the due dates for report submission.

According to the Assembly Committee on Water, Parks, and Wildlife, the "Making Water Conservation a California Way of Life" 2018 legislative package included new reporting requirements for water agencies that were in addition to existing requirements for Urban Water Management Plans and water loss audit reports. The reporting requirements can be time-intensive and resource-intensive to complete. AB 1414 would condense five current reporting deadlines down to two and merge multiple report submissions into two single submittals, eliminating some redundancy.

AB 1414 keeps current water use and water resources reporting in place while helping water agencies, such as EBMUD, comply with the requirements by condensing the number of reports required and aligning various reporting deadlines.

With regard to anticipated costs and benefits to EBMUD and its ratepayers, additional costs are not anticipated to accrue as a result of AB 1414. EBMUD anticipates some minor savings in costs and staff time due to the need for fewer separate reports to DWR.

EBMUD previously supported legislation related to long-term water use efficiency and drought planning, which included the reporting requirements that AB 1414 seeks to streamline. EBMUD supported AB 1668 (Friedman) and SB 606 (Hertzberg) to implement the Brown

administration's "Making Water Conservation a California Way of Life" framework. Both bills were signed into law in 2018 (Chapter 15 and Chapter 14, respectively).

The official list of support and opposition to AB 1414 is shown below.

Support
California Municipal Utilities Association
Southern California Water Coalition

Opposition
None listed

AB 1588 (Gloria) **DRINKING WATER AND WASTEWATER OPERATOR CERTIFICATION PROGRAMS** **SUPPORT**

Existing law requires the State Water Resources Control Board (SWRCB) to certify water treatment plant and water distribution system operators. The certification must indicate the classification of water treatment plant or water distribution system that is covered under the certification. In addition, the SWRCB must classify types of wastewater treatment plants for the purpose of determining the levels of competence necessary to operate them, as well as issue a water treatment operator certificate and water distribution operator certificate by reciprocity to any person holding a valid, unexpired, comparable certification issued by another state, the United States, prescribed territories or tribal governments.

AB 1588 (Gloria), as amended on April 2, 2019, is intended to assist military veterans transitioning into civilian water and wastewater operator occupations by ensuring they receive credit for their experience and education related to operation of water or wastewater facilities gained during military service when seeking state certification as water or wastewater facility operators.

According to the bill, "water and wastewater treatment and operation is a well-established industry with an aging workforce." In order to encourage advancement and cross-training "and to attract skilled workers to the water and wastewater industry" California's certification requirements should recognize a broad range of experience and qualifications, including those gained during military service.

Currently, to be certified or move to a new certification level as a water treatment plant operator, a water distribution system operator, or a wastewater operator, an applicant must meet minimum educational and experience criteria and pass a state exam. Under existing law, the SWRCB has a process for granting certification through reciprocity to operators who have been certified by another state. However, there is not a similar process that allows the SWRCB to grant certification through reciprocity to military veterans if their education and experience during military service is equivalent to California's requirements.

EBMUD employs water treatment plant operators, water distribution system operators, and wastewater operators. While EBMUD has not recently had difficulty recruiting qualified water treatment operators, water distribution operators, or wastewater operators, this bill may expand the number of qualified applicants for EBMUD operator positions and may provide additional opportunities for military veterans.

AB 1588 would assist the state, and water agencies such as EBMUD, by potentially expanding the pool of skilled individuals certified as water treatment plant operators, water distribution system operators, and wastewater operators.

With regard to anticipated costs and benefits to EBMUD and its ratepayers, additional costs are not expected to accrue as a result of AB 1588. Benefits could accrue if the measure results in a larger pool of skilled water treatment, water distribution, and wastewater operators seeking employment.

The issue of military experience and education equivalency for water and wastewater operator certification requirements is a relatively new topic of legislation thus there is no recent history of similar legislation considered by EBMUD. AB 1588 is consistent with EBMUD's efforts to recruit highly qualified and diverse staff.

The official list of support and opposition to AB 1588 is shown below.

Support
Otay Water District (Cosponsor)
American Federation of State, County and Municipal Employees, AFL-CIO
American G.I. Forum of California
Amvets, Department of California
California Association of County Veterans Service Officers
California Association of Sanitation Agencies
California State Commanders Veterans Council
California Water Association
Eastern Municipal Water District
Mesa Water District
Oceanside Chamber of Commerce
Rural County Representatives of California
San Diego County Water Authority
San Diego North Economic Development Council
San Diego Regional EDC
San Diego Veterans Coalition
Santa Clara Valley Water District
Sweetwater Authority
Turlock Irrigation District
United Veterans Council of San Diego County
Valley Center Municipal Water District

Veterans Village of San Diego
Vietnam Veterans of America, California State Council

Opposition
None listed

SB 487 (Caballero) **DEPARTMENT OF WATER RESOURCES: AERIAL SNOW SURVEY** **SUPPORT**

Existing law requires the Department of Water Resources (DWR) to collect and correlate information and data, including conducting snow surveys, to provide annual forecasts of seasonal water runoff.

SB 487 (Caballero), as introduced on February 21, 2019, would require DWR to conduct aerial surveys of the snowpack in the Trinity Alps and Sierra Nevada Mountains, including hydrologic areas that drain or supply water to certain major reservoirs and lakes, including Pardee Reservoir. Under the bill, DWR would be required to collect the aerial survey data up to 10 times per year, as well as summarize and make the data publicly available for use by public agencies and other interested parties. SB 487 would also continuously appropriate $150 million from the state general fund to DWR for these purposes, with $15 million allocated for expenditure each fiscal year. The provisions of the bill would expire on July 1, 2029.

According to the bill, the state launched snow surveys in 1929, providing water managers critical information needed to make daily decisions about operating water infrastructure to serve water supply and public safety needs. However, while conventional snowpack surveys provide useful data, they are limited and can have up to a 60-percent margin of error. Greater accuracy is needed to maximize the efficient operation of reservoirs, including managing water supply and flood control operations.

Since 2013, DWR has partnered with the National Aeronautics and Space Administration and others on a project to use aerial surveys to provide more complete snowpack data and runoff projections. However, the aerial surveys are used for only a portion of the state's watersheds and state funding for the program ends after the 2019 snow season.

Currently, EBMUD uses manual and automated data collected by DWR from February through May to estimate runoff projections into Pardee Reservoir, which informs EBMUD's water supply availability data. SB 487 would provide more accurate and timely information about snowpack, runoff, and conditions in watersheds, including EBMUD's, and would assist EBMUD and others with water resource management.

With regard to anticipated costs and benefits to EBMUD and its ratepayers, additional costs are not anticipated to accrue as a result of SB 487. Because the bill lists Pardee Reservoir as a hydrologic area to be included in aerial survey efforts, EBMUD expects to benefit from more

accurate information regarding snowpack in the Mokelumne Watershed and potential runoff thus enhancing EBMUD's water supply management.

The issue of aerial snow surveys is a relatively new topic of legislation and thus there is no recent history of similar legislation considered by EBMUD. SB 487's objective is consistent with EBMUD's mission that includes managing the natural resources it is entrusted with and providing reliable, high-quality water.

The official list of support and opposition to SB 487 is shown below.

Support
Friant Water Authority (Co-Sponsor)
Turlock Irrigation District (Co-Sponsor)
Association of California Water Agencies
California Municipal Utilities Association
Kaweah-Delta Water Conservation District
Kern-Tulare Water District
Kings River Water Association
Linsay-Strathmore Irrigation District
Mammoth Community Water District
Modesto Irrigation District
Northern California Water Association
San Francisco Public Utilities Commission
South Valley Water Association
Tulare Irrigation District

Opposition
None listed

ARC:MD:JW

ASSEMBLY BILL No. 557

Introduced by Assembly Member Wood
(Principal coauthor: Assembly Member Aguiar-Curry)

February 13, 2019

An act to amend Section 347 of the Water Code, relating to climate change, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

AB 557, as introduced, Wood. Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program.

Existing law establishes the Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program in the Department of Water Resources. Existing law requires the department, upon an appropriation for purposes of the program, to research climate forecasting and the causes and impacts that climate change has on atmospheric rivers, to operate reservoirs in a manner that improves flood protection, and to reoperate flood control and water storage facilities to capture water generated by atmospheric rivers.

This bill would appropriate $9,250,000 from the General Fund to the department in the 2019–20 fiscal year to operate the program.

Vote: ⅔. Appropriation: yes. Fiscal committee: yes. State-mandated local program: no.

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

SECTION 1. Section 347 of the Water Code is amended to read:

347. (a) The Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program is hereby established in the Department of Water Resources.

(b) Upon appropriation ~~of special fund moneys, including, but not limited to, private funds,~~ *by the Legislature* for these purposes, the department shall conduct research relating to ~~climate forecasting~~ *improving the accuracy of forecasting atmospheric river events* and the causes and impacts that climate change has on atmospheric rivers, and shall take all actions within its existing authority to operate reservoirs in a manner that improves flood protection in the state and to reoperate flood control and water storage facilities to capture water generated by atmospheric rivers, thereby increasing water supply, hydropower availability, and the reliability of water resources in the state.

(c) The sum of nine million two hundred fifty thousand dollars ($9,250,000) is hereby appropriated from the General Fund to the department in the 2019–20 fiscal year to operate the program established by this section.

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ASSEMBLY BILL No. 1414

Introduced by Assembly Member Friedman

February 22, 2019

An act to amend Sections 10608.34, 10609.20, 10609.22, 10609.24, 10609.26, 10621, 10631, and 10632.1 of, and to add Section 10609.25 to, the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

AB 1414, as introduced, Friedman. Urban retail water suppliers: reporting.

(1) Existing law requires the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020. Existing law requires each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. Existing law requires each urban retail water supplier, on or before October 1, 2017, and on or before October 1 of each year thereafter, to submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year as prescribed by rules adopted by the Department of Water Resources.

This bill would require each urban retail water supplier on or before January 1 of each year until January 1, 2024, to submit a completed and validated water loss audit report as prescribed by the department. The bill would require on or before January 1, 2024, and on or before January 1 of each year thereafter, each urban retail water supplier to submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year as part of an existing report relating to its urban water use.

(2) Existing law requires an urban retail water supplier to calculate an urban water use objective no later than November 1, 2023, and by November 1 every year thereafter, and its actual urban water use by those same dates. Existing law requires an urban retail water supplier to submit a report to the department relating to its urban water use by those dates.

This bill would revise these dates to January 1, 2024, and by January 1 every year thereafter.

(3) Existing law, on and after November 1, 2023, authorizes the State Water Resources Control Board to issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective.

This bill would instead authorize the board to issue an informational order pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective on and after January 1, 2024.

(4) Existing law, the Urban Water Management Planning Act, requires every public and private urban water supplier that directly or indirectly provides water for municipal purposes to prepare and adopt an urban water management plan. The act requires an urban water management plan to be updated on or before July 1, in years ending in 6 and 1, incorporating updated and new information from the 5 years preceding the plan update. The act requires each urban retail water supplier to adopt and submit to the department by January 1, 2024, a supplement to the adopted 2020 plan that includes a narrative describing the water demand management measures that the supplier plans to implement.

The bill would recast the urban water management narrative requirement to instead require, as part of the first annual report the urban retail water supplier submits to the department, a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.

(5) The act requires an urban water supplier to conduct an annual water supply and demand assessment and submit an annual shortage assessment report to the department consistent with the supplier's water shortage contingency plan by June 1 of each year.

This bill would revise that deadline to July 1 of each year.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

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

SECTION 1. Section 10608.34 of the Water Code is amended to read:

10608.34. (a) (1) On or before January 1, 2017, the department shall adopt rules for all of the following:

(A) The conduct of standardized water loss audits by urban retail water suppliers in accordance with the method adopted by the American Water Works Association in the third edition of Water Audits and Loss Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0.

(B) The process for validating a water loss audit report prior to submitting the report to the department. For the purposes of this section, "validating" is a process whereby an urban retail water supplier uses a technical expert to confirm the basis of all data entries in the urban retail water supplier's water loss audit report and to appropriately characterize the quality of the reported data. The validation process shall follow the principles and terminology laid out by the American Water Works Association in the third edition of Water Audits and Loss Control Programs, Manual M36 and in the Free Water Audit Software, version 5.0. A validated water loss audit report shall include the name and technical qualifications of the person engaged for validation.

(C) The technical qualifications required of a person to engage in validation, as described in subparagraph (B).

(D) The certification requirements for a person selected by an urban retail water supplier to provide validation of its own water loss audit report.

(E) The method of submitting a water loss audit report to the department.

(2) The department shall update rules adopted pursuant to paragraph (1) no later than six months after the release of subsequent editions of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36. Except as provided by the department, until the department adopts updated rules pursuant to this paragraph, an urban retail water supplier may rely upon a subsequent edition of the American Water Works Association's Water Audits and Loss Control Programs, Manual M36 or the Free Water Audit Software.

(b) On or before ~~October 1, 2017, and on or before October 1 of each year thereafter,~~ *January 1 of each year until January 1, 2024,* each urban retail water supplier shall submit a completed and validated water loss audit report for the previous calendar year or the previous fiscal year as prescribed by the department pursuant to subdivision (a). *On or before January 1, 2024, and on or before January 1 of each year thereafter, each urban retail water supplier shall submit a completed and validated water loss audit report for the previous calendar year or previous fiscal year as part of the report submitted to the department pursuant to subdivision (a) of Section 10609.24 and as prescribed by the department pursuant to subdivision (a).* Water loss audit reports submitted on or before October 1, 2017, may be completed and validated with assistance as described in subdivision (c).

(c) Using funds available for the 2016–17 fiscal year, the board shall contribute up to four hundred thousand dollars ($400,000) towards procuring water loss audit report validation assistance for urban retail water suppliers.

(d) Each water loss audit report submitted to the department shall be accompanied by information, in a form specified by the department, identifying steps taken in the preceding year to increase the validity of data entered into the final audit, reduce the volume of apparent losses, and reduce the volume of real losses.

(e) At least one of the following employees of an urban retail water supplier shall attest to each water loss audit report submitted to the department:

(1) The chief financial officer.

(2) The chief engineer.

(3) The general manager.

(f) The department shall deem incomplete and return to the urban retail water supplier any final water loss audit report found by the department to be incomplete, not validated, unattested, or incongruent with known characteristics of water system operations. A water supplier shall resubmit a completed water loss audit report within 90 days of an audit being returned by the department.

(g) The department shall post all validated water loss audit reports on its ~~Internet Web site~~ *internet website* in a manner that allows for comparisons across water suppliers. The department shall make the validated water loss audit reports available for public viewing in a timely manner after their receipt.

(h) Using available funds, the department shall provide technical assistance to guide urban retail water suppliers' water loss detection programs, including, but not limited to, metering techniques, pressure management techniques, condition-based assessment techniques for transmission and distribution pipelines, and utilization of portable and permanent water loss detection devices.

(i) No earlier than January 1, 2019, and no later than July 1, 2020, the board shall adopt rules requiring urban retail water suppliers to meet performance standards for the volume of water losses. In adopting these rules, the board shall employ full life-cycle cost accounting to evaluate the costs of meeting the performance standards. The board may consider establishing a minimum allowable water loss threshold that, if reached and maintained by an urban water supplier, would exempt the urban water supplier from further water loss reduction requirements.

SEC. 2. Section 10609.20 of the Water Code is amended to read:

10609.20. (a) Each urban retail water supplier shall calculate its urban water use objective no later than ~~November 1, 2023,~~ *January 1, 2024,* and by ~~November~~ *January* 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use conditions for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use objective shall be composed of the sum of the following:

(1) Aggregate estimated efficient indoor residential water use.

(2) Aggregate estimated efficient outdoor residential water use.

(3) Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology in connection with CII water use.

(4) Aggregate estimated efficient water losses.

(5) Aggregate estimated water use in accordance with variances, as appropriate.

(d) (1) An urban retail water supplier that delivers water from a groundwater basin, reservoir, or other source that is augmented by potable reuse water may adjust its urban water use objective by a bonus incentive calculated pursuant to this subdivision.

(2) The water use objective bonus incentive shall be the volume of its potable reuse delivered to residential water users and to

landscape areas with dedicated irrigation meters in connection with CII water use, on an acre-foot basis.

(3) The bonus incentive pursuant to paragraph (1) shall be limited in accordance with one of the following:

(A) The bonus incentive shall not exceed 15 percent of the urban water supplier's water use objective for any potable reuse water produced at an existing facility.

(B) The bonus incentive shall not exceed 10 percent of the urban water supplier's water use objective for any potable reuse water produced at any facility that is not an existing facility.

(4) For purposes of this subdivision, "existing facility" means a facility that meets all of the following:

(A) The facility has a certified environmental impact report, mitigated negative declaration, or negative declaration on or before January 1, 2019.

(B) The facility begins producing and delivering potable reuse water on or before January 1, 2022.

(C) The facility uses microfiltration and reverse osmosis technologies to produce the potable reuse water.

(e) (1) The calculation of the urban water use objective shall be made using landscape area and other data provided by the department and pursuant to the standards, guidelines, and methodologies adopted by the board. The department shall provide data to the urban water supplier at a level of detail sufficient to allow the urban water supplier to verify its accuracy at the parcel level.

(2) Notwithstanding paragraph (1), an urban retail water supplier may use alternative data in calculating the urban water use objective if the supplier demonstrates to the department that the alternative data are equivalent, or superior, in quality and accuracy to the data provided by the department. The department may provide technical assistance to an urban retail water supplier in evaluating whether the alternative data are appropriate for use in calculating the supplier's urban water use objective.

SEC. 3. Section 10609.22 of the Water Code is amended to read:

10609.22. (a) An urban retail water supplier shall calculate its actual urban water use no later than ~~November 1, 2023,~~ *January 1, 2024,* and by ~~November~~ *January* 1 every year thereafter.

(b) The calculation shall be based on the urban retail water supplier's water use for the previous calendar or fiscal year.

(c) Each urban water supplier's urban water use shall be composed of the sum of the following:

(1) Aggregate residential water use.

(2) Aggregate outdoor irrigation of landscape areas with dedicated irrigation meters in connection with CII water use.

(3) Aggregate water losses.

SEC. 4. Section 10609.24 of the Water Code is amended to read:

10609.24. (a) An urban retail water supplier shall submit a report to the department no later than ~~November 1, 2023,~~ *January 1, 2024,* and by ~~November~~ *January* 1 every year thereafter. The report shall include all of the following:

(1) The urban water use objective calculated pursuant to Section 10609.20 along with relevant supporting data.

(2) The actual urban water use calculated pursuant to Section 10609.22 along with relevant supporting data.

(3) Documentation of the implementation of the performance measures for CII water use.

(4) A description of the progress made towards meeting the urban water use objective.

(5) The validated water loss audit conducted pursuant to Section 10608.34.

(b) The department shall post the reports and information on its ~~Internet Web site.~~ *internet website.*

(c) The board may issue an information order or conservation order to, or impose civil liability on, an entity or individual for failure to submit a report required by this section.

SEC. 5. Section 10609.25 is added to the Water Code, to read:

10609.25. As part of the first report submitted to the department by an urban retail water supplier no later than January 1, 2024, pursuant to subdivision (a) of Section 10609.24, each urban retail water supplier shall provide a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027.

SEC. 6. Section 10609.26 of the Water Code is amended to read:

10609.26. (a) (1) On and after ~~November 1, 2023,~~ *January 1, 2024,* the board may issue informational orders pertaining to

water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective required by this chapter. Informational orders are intended to obtain information on supplier activities, water production, and conservation efforts in order to identify technical assistance needs and assist urban water suppliers in meeting their urban water use objectives.

(2) In determining whether to issue an informational order, the board shall consider the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet the urban water use objective.

(3) The board shall share information received pursuant to this subdivision with the department.

(4) An urban water supplier may request technical assistance from the department. The technical assistance may, to the extent available, include guidance documents, tools, and data.

(b) On and after ~~November 1, 2024,~~ *January 1, 2025,* the board may issue a written notice to an urban retail water supplier that does not meet its urban water use objective required by this chapter. The written notice may warn the urban retail water supplier that it is not meeting its urban water use objective described in Section 10609.20 and is not making adequate progress in meeting the urban water use objective, and may request that the urban retail water supplier address areas of concern in its next annual report required by Section 10609.24. In deciding whether to issue a written notice, the board may consider whether the urban retail water supplier has received an informational order, the degree to which the urban retail water supplier is not meeting its urban water use objective, information provided in the report required by Section 10609.24, and actions the urban retail water supplier has implemented or will implement in order to help meet its urban water use objective.

(c) (1) On and after ~~November 1, 2025,~~ *January 1, 2026,* the board may issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. A conservation order may consist of, but is not limited to, referral to the department for technical assistance, requirements for education and outreach, requirements for local enforcement, and other efforts

to assist urban retail water suppliers in meeting their urban water use objective.

(2) In issuing a conservation order, the board shall identify specific deficiencies in an urban retail water supplier's progress towards meeting its urban water use objective, and identify specific actions to address the deficiencies.

(3) The board may request that the department provide an urban retail water supplier with technical assistance to support the urban retail water supplier's actions to remedy the deficiencies.

(d) A conservation order issued in accordance with this chapter may include requiring actions intended to increase water-use efficiency, but shall not curtail or otherwise limit the exercise of a water right, nor shall it require the imposition of civil liability pursuant to Section 377.

SEC. 7. Section 10621 of the Water Code is amended to read:

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) An urban water supplier regulated by the Public Utilities Commission shall include its most recent plan and water shortage contingency plan as part of the supplier's general rate case filings.

(d) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

(e) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

(f) ~~(1)~~ Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.

~~(2) By January 1, 2024, each urban retail water supplier shall adopt and submit to the department a supplement to the adopted 2020 plan that includes information required pursuant to~~

~~subparagraph (B) of paragraph (1) of subdivision (c) of Section 10631. This supplement is not an update or an amendment to the plan and, therefore, an urban water supplier is not required to comply with the public notice, hearing, and adoption requirements of Section 10642 before submitting the information to the department.~~

SEC. 8. Section 10631 of the Water Code is amended to read:

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other social, economic, and demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available. The description shall include the current and projected land uses within the existing or anticipated service area affecting the supplier's water management planning. Urban water suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land use information, including, where appropriate, land use information obtained from local or regional land use authorities, as developed pursuant to Article 5 (commencing with Section 65300) of Chapter 3 of Division 1 of Title 7 of the Government Code.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information, including all of the following:

(1) A detailed discussion of anticipated supply availability under a normal water year, single dry year, and droughts lasting at least five years, as well as more frequent and severe periods of drought, as described in the drought risk assessment. For each source of water supply, consider any information pertinent to the reliability analysis conducted pursuant to Section 10635, including changes in supply due to climate change.

(2) When multiple sources of water supply are identified, a description of the management of each supply in correlation with the other identified supplies.

(3) For any planned sources of water supply, a description of the measures that are being undertaken to acquire and develop those water supplies.

(4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:

(A) The current version of any groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720), any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management for basins underlying the urban water supplier's service area.

(B) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For a basin that has not been adjudicated, information as to whether the department has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to coordinate with groundwater sustainability agencies or groundwater management agencies listed in subdivision (c) of Section 10723 to maintain or achieve sustainable groundwater conditions in accordance with a groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720).

(C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(D) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(d) (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(3) (A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

(4) (A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

(e) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

~~(B) For the supplement required of urban retail water suppliers by paragraph (2) of subdivision (f) of Section 10621, a narrative that describes the water demand management measures that the supplier plans to implement to achieve its urban water use objective by January 1, 2027, pursuant to Chapter 9 (commencing with Section 10609) of Part 2.55.~~

~~(C)~~

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv),

(vi), and (vii) of subparagraph ~~(C)~~ *(B)* of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(g) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (f). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (f).

SEC. 9. Section 10632.1 of the Water Code is amended to read:

10632.1. An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before ~~June~~ *July* 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication

actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by ~~June~~ *July* 1 of each year, whichever is later.

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AMENDED IN ASSEMBLY APRIL 2, 2019

CALIFORNIA LEGISLATURE—2019–20 REGULAR SESSION

ASSEMBLY BILL No. 1588

Introduced by Assembly Members Gloria and Gray
(Coauthors: Assembly Members Maienschein and Voepel)
(Coauthors: Senators Bates, Chang, Dodd, Nielsen, Stone, and Wilk)

February 22, 2019

An act to amend Sections ~~106876, 106897, and 106898~~ *106897 and 106898* of, and to add Section ~~106911, 106912, and 106913~~ *106911 and 106912* to, the Health and Safety Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

AB 1588, as amended, Gloria. Drinking water and wastewater operator certification programs.

Existing law requires the State Water Resources Control Board to examine and certify persons as to their qualifications to operate water treatment plants and water distribution systems. Existing law requires the certification to indicate the classification of water treatment plant or water distribution system that the person is qualified to operate. Existing law requires the board to classify types of wastewater treatment plants for the purpose of determining the levels of competence necessary to operate them. Existing law requires a person who operates a nonexempt wastewater treatment plant to possess a valid, unexpired wastewater certificate or water treatment operator certificate of the appropriate grade.

This bill, when applying for certification by the board as a water treatment operator, distribution system operator, or wastewater operator, would require operators of complex industrial facilities, including members of the military and military service veterans, to receive full

equivalent experience credit and education credit for work and tasks performed that are directly related to the operation of water or wastewater facilities, as specified. ~~The bill would require for purposes of water treatment operator certification experience a treatment plant using advanced water treatment processes, as defined, that treats water of wastewater origin for purposes of water reuse to be considered to provide certain equivalent experience to working at a water treatment plant. The bill would require for purposes of water distribution operator certification experience operation of a recycled water distribution system to be considered to provide equivalent experience to operating a potable distribution system. The bill would authorize for purposes of certification as a certain water treatment operator or certain water distribution operator the substitution of specified experience or registration as a professional engineer in California.~~

Existing law requires the board to issue a water treatment operator certificate and water distribution operator certificate by reciprocity to any person holding a valid, unexpired, comparable certification issued by another state, the United States, prescribed territories or tribal governments, or a unit of any of these.

This bill would extend this reciprocity to a qualification.

Existing law requires the board to appoint an advisory committee of 10 members, as prescribed, to assist it in carrying out its responsibilities to examine and certify people to operate water treatment plants and water distribution systems. Existing law requires the advisory committee to review all proposed regulations and make recommendations to the board.

This bill would add an additional member to the advisory committee who is an active or former member of the United States military with water or wastewater treatment operations experience within their military service.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

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

~~SECTION 1. Section 106876 of the Health and Safety Code is amended to read:~~

~~106876. As used in this article, unless the context otherwise requires, the following definitions apply:~~

~~(a) "Advanced water treatment process" means a water or wastewater treatment process that includes any of the following:~~

~~(1) Membrane filtration.~~

~~(2) Membrane desalination.~~

~~(3) Biological filtration.~~

~~(4) Adsorption or ion exchange.~~

~~(5) Finished water chemical stabilization.~~

~~(6) Iron and manganese removal.~~

~~(7) Advanced oxidation processes for pathogen or chemical control.~~

~~(8) Membrane bioreactor.~~

~~(9) Other treatment processes as defined by the state board.~~

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

~~(c) "Local primacy agency" has the same meaning as defined in Section 116275.~~

~~(d) "Nontransient noncommunity water system" has the same meaning as defined in Section 116275.~~

~~(e) "Operates a water distribution system" means actions or decisions to control the quality or quantity of drinking water in a water distribution system and includes both of the following:~~

~~(1) Supervision of other persons operating a water distribution system.~~

~~(2) Any activity designated by the state board, in its regulations to implement this article, as an activity that may only be performed by a person with a water distribution operator certificate.~~

~~(f) "Operates a water treatment plant" means actions or decisions to control the performance of one or more drinking water treatment processes and includes both of the following:~~

~~(1) Supervision of other persons operating a water treatment plant.~~

~~(2) Any activity designated by the state board, in its regulations to implement this article, as an activity that may only be performed by a person with a water treatment operator certificate.~~

~~(g) "Wastewater certificate" has the same meaning as defined in Section 13625 of the Water Code.~~

~~(h) "Wastewater treatment plant" has the same meaning as defined in Section 13625 of the Water Code.~~

~~(i) "Water distribution operator certificate" means a certificate of competency issued by the state board stating that a person has~~

~~met the requirements to be certified to operate a water distribution system for a specified grade level.~~

~~(j) "Water distribution system" has the same meaning as defined in Section 116275.~~

~~(k) "Water recycling treatment plant" has the same meaning as defined in Section 13625 of the Water Code.~~

~~(l) "Water treatment operator certificate" means a certificate of competency issued by the state board stating that a person has met the requirements to be certified to operate a water treatment plant for a specific classification and grade level.~~

~~(m) "Water treatment plant" has the same meaning as defined in Section 116275.~~

~~(n) "Water treatment process" means a process that improves the physical, chemical, biological, or radiological quality of water in order to render the water acceptable for use as drinking water and includes all of the following:~~

~~(1) Aeration.~~

~~(2) Blending.~~

~~(3) Chemical addition.~~

~~(4) Contaminant removal.~~

~~(5) Conventional treatment.~~

~~(6) Demineralization.~~

~~(7) Disinfection.~~

~~(8) Filtration.~~

~~(9) Fluoridation.~~

~~(10) Ion exchange.~~

~~(11) pH adjustment.~~

~~(12) Pre- and post-treatment.~~

~~(13) Reverse osmosis.~~

~~SEC. 2.~~

SECTION 1. Section 106897 of the Health and Safety Code is amended to read:

106897. The state board shall issue a water treatment operator certificate and water distribution operator certificate by reciprocity to any person holding a valid, unexpired, comparable certification or qualification issued by another state, the United States, a territory or tribal government that has been designated as the primacy agency by the United States Environmental Protection Agency, or a unit of any of these. The state board may, by regulations, prescribe the procedures and requirements for issuing a water

treatment operator certificate and water distribution operator certificate by reciprocity.

~~SEC. 3.~~

SEC. 2. Section 106898 of the Health and Safety Code is amended to read:

106898. (a) The state board shall appoint an advisory committee to assist it in carrying out its responsibilities pursuant to this article. The advisory committee shall review all proposed regulations and make recommendations to the state board before the adoption of a regulation or an amendment to a regulation.

(b) The advisory committee shall consist of the following members:

(1) Two persons from a statewide organization representing medium to large water systems.

(2) Two persons from a statewide organization representing small water systems.

(3) One person from a local primacy agency.

(4) One person who is employed as an operator at a water recycling treatment plant.

(5) One person from an educational institution's school or division of engineering.

(6) One person who is a member of an organized labor union that represents water treatment operators and water distribution operators.

(7) One person who is employed by an educational institution, professional association, public agency, or private agency to provide water treatment or water distribution courses of instruction.

(8) One person who is a professional engineer specializing in sanitary engineering.

(9) One person who is an active or former member of the United States military who is working or who has previously worked in a water or wastewater treatment operations classification within their military service.

~~SEC. 4.~~

SEC. 3. Section 106911 is added to the Health and Safety Code, to read:

106911. The Legislature finds and declares as follows:

(a) Water and wastewater treatment and operation is a well-established industry with an aging workforce.

(b) To encourage water operator advancement and cross-training and to attract skilled workers to the water and wastewater industry fields, California operator certification requirements should recognize a broad range of experience and ~~qualifications~~ *qualifications, including experience and education gained during active military service,* that provide the needed skill sets, while ensuring high standards for water and wastewater operators.

~~(c) Workers in the water and wastewater industry process water from a variety of sources to make it safe for drinking or to be returned to the environment.~~

~~(d) When wastewater is reused for beneficial use, ensuring protection of public health is of highest importance.~~

~~(e) Operations of advanced water treatment facilities require similar skill sets for both direct production of domestic water supplies and treatment of wastewater. Operations of recycled water distribution systems and potable distribution systems require similar skill sets.~~

~~(f) To attract employees with the necessary technical skills to the water and wastewater industries, the state board should expand the allowable experience to qualify operators to obtain water and wastewater certification.~~

~~SEC. 5.~~

SEC. 4. Section 106912 is added to the Health and Safety Code, to read:

106912. (a) When applying for certification by the state board as a water treatment operator, distribution system operator, or wastewater operator, operators of complex industrial facilities, including members of the military and military service veterans, shall receive full equivalent experience credit and education credit for work and tasks performed that are directly related to the operation of water or wastewater facilities.

(b) Experience credit includes work during military service that is applicable to work performed by a certified operator in California. Applicable work may include, but is not limited to, the following:

(1) Operation of similar water treatment processes.

(2) Operation and management of supervisory control and data acquisition (SCADA) systems and automation.

(3) Troubleshooting equipment failures.

(4) Management of water quality.

(5) Operation and maintenance of equipment such as pumps, motors, compressors, chemical feed systems, valves, actuators, and meters.

(6) Calibration of on-line analyzers.

(c) Education credit translated to the equivalent college semester unit, continuing education units, education points, or any combination of these, shall be given for military veterans who obtained and served in military occupational specialties, including, but not limited to, the following:

(1) United States Air Force Specialty Code: 3E4X1 – Water and Fuel Systems Maintenance.

(2) United States Army military occupational specialty: 92W Water Treatment Specialist.

(3) United States Coast Guard Ratings: Damage Controlman, Machinery Technician, or Marine Science Technician.

(4) United States Navy Rating: Machinist Mate, Machinist Mate (Nuclear), or Utilitiesman.

(5) United States Marines military occupational specialty: 1171 Water Support Technician.

~~SEC. 6. Section 106913 is added to the Health and Safety Code, to read:~~

~~106913. (a) For purposes of water treatment operator certification experience, a treatment plant using advanced water treatment processes that treats water of wastewater origin for purposes of water reuse, shall be considered to provide equivalent experience to working at a water treatment plant at the levels indicated as follows:~~

~~(1) A treatment plant that uses advanced treatment processes for nonpotable reuse shall be considered at least equivalent to a T3 facility.~~

~~(2) A treatment plant that uses advanced treatment processes for potable reuse through groundwater recharge, reservoir augmentation, or augmentation of raw water supplies shall be considered at least equivalent to a T4 plant.~~

~~(3) A treatment plant that uses advanced treatment processes for potable reuse through augmentation of treated water supplies shall be considered equivalent to a T5 plant.~~

~~(b) For purposes of water distribution operator certification experience, operation of a recycled water distribution system shall~~

~~be considered to provide equivalent experience to operating a potable distribution system.~~

~~(c) For any of the experience requirements for certification as a T3 operator or D3 operator, a treatment or distribution operator may substitute any of the following:~~

~~(1) Day to day experience gained working with lead responsibility for water quality related projects or research.~~

~~(2) Day to day experience in industrial facilities, including material facilities and vessels, with responsibility for operations of similar treatment process technologies.~~

~~(3) Registration as a professional engineer in California in civil engineering, chemical engineering, or mechanical engineering, and work experience related to water and wastewater operations.~~

~~(d) For the purposes of this section, operator certificate grades have the meanings provided in Chapter 13 (commencing with Section 63750.10) of Title 22 of the California Code of Regulations.~~

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SENATE BILL No. 487

Introduced by Senator Caballero

February 21, 2019

An act to add and repeal Section 228.5 of the Water Code, relating to water resources, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

SB 487, as introduced, Caballero. Department of Water Resources: aerial snow survey.

Existing law requires the Department of Water Resources to gather and correlate information and data pertinent to an annual forecast of seasonal water crop, including the making of snow surveys, either independently or in cooperation with any person or any county, state, federal, or other agency. Existing law also requires the Department of Water Resources to update every 5 years the plan for the orderly and coordinated control, protection, conservation, development, and use of the water resources of the state, which is known as The California Water Plan.

This bill would require the department's California snow survey program to conduct aerial surveys of the snowpack in the Trinity Alps and Sierra Nevada Mountains, including hydrologic areas that drain or supply water to certain major reservoirs and lakes. The bill would require the department to collect the aerial survey data up to 10 times per year in each hydrologic area and to summarize and make publicly available the data obtained and digital products used to produce runoff forecasts, as specified. The bill would continuously appropriate $150 million from the General Fund to the department for these purposes with $15 million being allocated for expenditure each fiscal year.

This bill would make these provisions inoperative on July 1, 2029, and would repeal them as of January 1, 2030.

Vote: 2/3. Appropriation: yes. Fiscal committee: yes. State-mandated local program: no.

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

SECTION 1. The Legislature finds and declares the following:

(a) The State of California has been a global leader in snowpack measurement and monitoring and runoff forecasting since it launched the snow survey program in 1929, providing water managers critical information needed to make daily decisions about how to operate our water infrastructure to serve water supply and public safety needs.

(b) During the past century, demands on California's water system and water supply have increased due to factors such as the growth of population centers and industries, changing societal values and priorities for protecting fish and wildlife, and greater variability in the climate.

(c) Conventional snow surveys provide useful data to natural resource managers but have limitations, such as inaccessibility of wilderness areas, and result in estimates of snowpack with a margin of error of up to 60 percent.

(d) Greater accuracy is needed in order to maximize the efficient operation of reservoirs to meet competing demands for water in a changing climate, as more accurate runoff predictions would prevent unnecessary releases of water to create flood space, effectively creating new storage in upstream reservoirs.

(e) Better information about tree health, moisture content, and other conditions of California's forests and watersheds will be critical for targeting key areas where additional forest management and fuel reduction activities can help reduce the risk of catastrophic wildfires, especially under future climate change.

(f) Since 2013, local and regional agencies relying on the Sierra Nevada watershed have collaborated to fund operations of the Airborne Snow Observatory, a snow survey and forecasting technology developed by the National Aeronautics and Space Administration, the Jet Propulsion Laboratory, and the United States Department of Agriculture's Agricultural Research Service.

(g) The Airborne Snow Observatory is capable of measuring snow depths at several points in every square meter of a watershed,

as opposed to conventional surveys that rely on a few hundred monitoring locations to cover more than 40,000 miles.

(h) When combined with conventional measurements from California's snow survey program, data generated though the Airborne Snow Observatory has resulted in runoff forecasts that are 96 percent to 98 percent accurate, and this data is already in use by the Department of Water Resources' flood control forecasters and federal water supply and habitat restoration programs.

(i) Data gathered through the Airborne Snow Observatory surveys has broad application and use beyond water supply, flood management, and forest management, including for assessing seismic risk, fire management, transportation planning, and recreation.

(j) For fiscal year 2019, operations of the Airborne Snow Observatory program have been funded by local water users and the Department of Water Resources through a Proposition 1 flood grant.

SEC. 2. Section 228.5 is added to the Water Code, to read:

228.5. (a) The department's California snow survey program shall conduct aerial surveys of the snowpack in the Trinity Alps and Sierra Nevada Mountains, including hydrologic areas that drain or supply water to the following major reservoirs and lakes:

(1) Don Pedro Reservoir.
(2) Englebright Lake.
(3) Folsom Lake.
(4) Lake Isabella.
(5) Lake Kaweah.
(6) Lake McClure.
(7) Lake Oroville.
(8) Lake Success.
(9) Lake Tahoe.
(10) Millerton Lake.
(11) New Melones Lake.
(12) Owens Lake.
(13) Pardee Reservoir.
(14) Pine Flat Reservoir.
(15) Shasta Lake.
(16) Trinity Lake.

(b) The department shall collect the aerial survey data described in subdivision (a) up to 10 times per year in each hydrologic area, depending on the extent of the snow cover, with the objective of informing Bulletin 120 runoff forecasts for the State of California and providing data for other public benefits and uses.

(c) The department may contract with the National Aeronautics and Space Administration or a private entity, if necessary, to complete the surveys of the snowpack pursuant to this section.

(d) The department shall summarize the data obtained through the snow surveys conducted pursuant to this section and post a summary on the department's Internet Web site. The department shall make the summaries available publicly within 30 days of collection for use by public agencies and any other interested parties. The department, in a manner determined by the department, shall make publicly available any digital products, such as computer models, used to produce runoff forecasts.

(e) Notwithstanding Section 13340 of the Government Code, the sum of one hundred fifty million dollars ($150,000,000) is hereby continuously appropriated, without regard to fiscal years, from the General Fund to the department for the purposes of this section provided, however, that fifteen million dollars ($15,000,000) of this appropriation shall be allocated for expenditure each fiscal year.

(f) This section shall become inoperative on July 1, 2029, and, as of January 1, 2030, is repealed.

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EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: May 9, 2019

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager ARC

FROM: Laura A. Acosta, Manager of Human Resources Laura

SUBJECT: Workforce Development Strategies - Center for Employment Opportunities Pilot Project

SUMMARY

The District has a long history of supporting workforce development programs, including training opportunities for at-risk groups in our service area. The Center for Employment Opportunities (CEO) provides comprehensive employment services for those returning to the community after incarceration. The CEO model includes services for participants such as job readiness training, job search and placement, job coaching and retention, connections to advanced vocational training, and paid on-the-job training. The District will conduct a pilot in Fiscal Year 2020 (FY20) with CEO to supplement hydrant painting efforts. This item will be discussed at the May 14, 2019 Legislative/Human Resources Committee meeting.

DISCUSSION

Since the early 1980s, the District has supported workforce development programs for at-risk groups in our service area. In 1981, the District implemented a Special Employment Program (SEP) to reduce unemployment and provide temporary jobs for adults in EBMUD's service area. This program included a training program and mentors who helped SEP trainees acquire more marketable job skills.

Additionally, since 1984, the District has contracted with Civicorps to provide landscape and vegetation control at various District locations. Civicorps' mission focuses on encouraging young adults, aged 18 to 26, to earn their high school diplomas, gain job skills, pursue college and embark on family-sustaining careers. This successful partnership with Civicorps continues to this day.

CEO is an independent 501(c)(3) nonprofit organization providing comprehensive employment services to people newly released from prison and detention facilities. CEO operates in 21 cities across eight states and has placed more than 30,000 formerly incarcerated individuals into full-time employment. A partnership with CEO supports the goal of creating more opportunities for people coming home from incarceration to communities within the District's service area.

The District maintains over 29,000 fire hydrants throughout its service area. Staff currently paints approximately 800 hydrants each year, largely in response to customer complaints about aesthetics or corrosion. Partnering with CEO will increase the number of fire hydrants painted each year, improve aesthetics, and protect the hydrants from corrosion. CEO crews consist of four to nine participants directly managed by a CEO supervisor.

Staff will identify and review the painting requirements of the selected fire hydrants with the CEO supervisor. The CEO supervisor will be responsible for ensuring crews meet daily goals in an efficient, satisfactory and safe manner. Completed work will be inspected by the District and any deficiencies identified will be corrected before continuing to the next group of hydrants.

Staff has been exploring other opportunities to partner with CEO in the District's workforce planning efforts. CEO was invited to be part of a Wastewater Treatment Plant tour and workforce development discussion as a member of Oakland Unite, a 9-agency workforce development collaborative (funded by the City of Oakland) that serves a diverse range of local jobseekers. This tour and discussion took place on April 25, 2019, and included a discussion about water and wastewater industry jobs and the recruitment process for entry-level employment opportunities at the District. In that discussion, the District and members of Oakland Unite explored possible partnerships for civil service test preparation and other jobseeker support services.

FISCAL IMPACT

The estimated cost for the FY20 pilot is $30,000. Funds are included in the proposed FY20/21 budget.

NEXT STEPS

The pilot project for hydrant painting is expected to begin this summer and will last approximately 30 days. When completed, the District will evaluate the pilot and determine if a longer-term partnership with CEO should continue. If approved in the FY20/21 budget, the District will enter into a contract with CEO this summer and complete evaluation of the pilot by fall 2019. Staff will continue to report on its efforts with CEO and other community organizations to support the District's workforce planning strategies.

ARC:LAA:rdw

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: May 9, 2019

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager ARC

FROM: Eileen M. White, Director of Wastewater EMW

SUBJECT: Wastewater Plant Operator Training Program

SUMMARY

Since 2006, the District's formalized in-house training program for Wastewater Plant Operators (Operator) has achieved tremendous success in ensuring a strong workforce for many years to come. Sixty-two percent (62%) of the current Wastewater Operations team for both front line and supervisory positions are graduates of the training program. The program was created in-house and is managed and implemented by the District's incumbent Operators and Supervisors. The program was recently presented with the National Association of Clean Water Agencies' (NACWA) Workforce Development Award. Staff will provide an overview of the Wastewater Treatment Plant Operator Trades Training Program (WWTPO TTP) at the May 14, 2019 Legislative/Human Resources Committee meeting.

DISCUSSION

In 2006, the District was faced with a "silver tsunami:" 21 Operators, or 36 percent of its Wastewater Operations workforce, were eligible for retirement without penalty in addition to six vacancies in active recruitment. These projected retirement rates continued for several years. However, there was an insufficient pool of qualified applicants due to discontinuation of junior college training programs, a shrinking blue collar workforce, and competition amongst sister agencies. In order to address these challenges, the District changed its approach to recruiting Operators. This effort supports the District's commitment to its ratepayers to protect public health and the environment while providing excellent wastewater services at fair and reasonable rates.

The District's WWTPO TTP focuses on "growing our own." Candidates are selected using behavioral-based hiring; most trainees start with little to no wastewater experience. The selected candidates exhibit passion for learning new things, working together in a team, and commitment to the District's mission to protect public health and the environment. The Wastewater Department coordinates with the Diversity and Inclusion Office (DIO) regarding outreach about the program, particularly when new recruitments are planned. In addition, Operators regularly attend DIO outreach events to promote the program.

The WWTPO TTP is managed by supervisory-level Operators. The materials used for the training are developed in-house and supplemented with textbooks and materials developed by experts in the industry. Eighty-five percent (85%) of the training occurs through direct on-the-job experience. This component of the training is provided by journey-level staff; typically the ratio of trainees to trainer is 2 to 1.

The training program uses an up-or-out approach in which incoming Operators are required to promote to journey level within either four years (for Operators-In-Training) or three years (for Operator Is). Individuals entering the program sign an agreement committing to complete the following program requirements:

- Pass a total of eight knowledge, skills and ability exams at the three stations (Primary, Secondary, Solids);
- Complete industry-standard technical courses on treatment principles, equipment and maintenance; and
- Obtain Grade 1 and Grade 2 Operator Certification from the State of California.

This approach was developed in conjunction with the District's recruitment staff as well as with the District unions.

The benefits of an in-house training program are numerous. It has built a cohesive team of Operators through its peer-to-peer training approach. Journey-level Operators gain a chance to develop new skills as they teach and mentor the individuals coming up through the training program. As a result, the program has created a highly trained and effective workforce that is intimately familiar with the treatment processes at the plant, and that also understands the broader wastewater treatment concepts necessary to pass the State's certification exams.

The program does have its challenges. Due to budgetary considerations, a new Operator is not recruited until a journey-level Operator has indicated their intent to retire. The number of new Operators the District can hire at any one time is also limited by the need to maintain a balance among journey-level Operators, newly trained staff, and more experienced staff to ensure that individuals are provided sufficient training to be successful.

NEXT STEPS

The WWTPO TTP is an ongoing program and is continuously updated and enhanced to ensure it meets the needs of the team. For example, the program's onboarding manual was completely refreshed this past year, including adding information about the District's values program. This begins the values embedding process on the first day of work. The program also recently added a rotation in the Recycled Water Operations section to increase understanding and appreciation of the District's recycled water program.

The District continues to explore opportunities to provide ongoing training for journey-level Operators, as well as for Operators in supervisory positions, to ensure we promote an environment of continuous learning and continuous improvement. Improvements and enhancements planned for the near term include:

- Implementing an eLearning platform
- Updating and modernizing existing training documents
- Training for soft skills
- Training to develop subject matter experts
- Enhancing Operator onboarding

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