Draft Planning Program Workplan for Fiscal Years 2018 through 2021

| Ranking | Project Description | Projected End Date | FY 2018-19 Staff Resources ¹ | FY 2019-20 Staff Resources ² | FY 202-21 Staff Resources ³ | Total FY 2018-2021 Staff Resources |
|---------|--|-----------------------|--|--|---|--|
| 1a | Develop Russian River Pathogen TMDL and Action Plan. Update beneficial uses designations and water quality objectives, as appropriate. See Staff Report Section 2.1.1. | FY 2018-19 | 0.104 | 0.00 | 0.00 | 0.10 |
| 1b | Develop Laguna de Santa Rosa Nutrient, Dissolved Oxygen, Temperature and Sediment TMDL Action Plan or TMDL Alternative. Update beneficial use designations and water quality objectives, as appropriate. See Staff Report Section 2.1.2. | FY 2021-22 | 1.15 <u>0.10</u> | 1.15 <u>0.10</u> | 1.15 0.10 | 3.45 0.30 |
| 1c | Develop Ocean Beaches and Freshwater Streams Pathogen TMDL Action Plan or TMDL Alternative. Update beneficial use designations and water quality objectives, as appropriate. See Staff Report Section 2.1.3. | FY 2020-21 | 0.75 | 0.85 | 0.50 | 2.10 |
| 1d | Conduct a TMDL Program Retrospective Review to update existing TMDLs, TMDL action plans, and TMDL implementation policies. Move TMDL | FY 2019-20 | <u>1.25</u> | <u>1.25</u> | 0.35 ⁶ | 0.35 2.50 |

¹For the purpose of this planning exercise, it can be assumed for FY 2018-19 that there will be a total of 4.0 PYs of planning and TMDL development staff available to lead and assist on basin plan amendment projects. Approximately 0.70 PYs of planning staff resources are spent providing technical assistance to other projects and programs in the office. Similarly, other program staff assist on basin plan amendment projects, as represented by underlined PY estimates. These non-planning staff resources include assistance from watershed stewards, specialists, and point and non-point source permitting program staff.

² In FY 2019-20 there will be a total of 4.7 PYs of planning and TMDL development staff available to lead and assist on basin plan amendment projects.

Approximately 0.70 PYs of planning staff resources are spent providing technical assistance to other projects and programs in the office. Similarly, other program staff assist on basin plan amendment projects, as represented by underlined PY estimates. These non-planning staff resources include assistance from watershed stewards, specialists, and point and non-point source permitting program staff.

³ In FY 2020-21 there will be a total of 4.7 PYs of planning and TMDL development staff available to lead and assist on basin plan amendment projects. Approximately 0.70 PYs of planning staff resources are spent providing technical assistance to other projects and programs in the office. Similarly, other program staff assist on basin plan amendment projects, as represented by underlined PY estimates. These non-planning staff resources include assistance from watershed stewards, specialists, and point and non-point source permitting program staff.

⁴ To compile a report documenting the findings of the TMDL Program Retrospective Review.

⁶ To complete the approval process.

| Ranking | Project Description | Projected End Date | FY 2018-19 Staff Resources ¹ | FY 2019-20 Staff Resources ² | FY 202-21 Staff Resources ³ | Total FY 2018-2021 Staff Resources |
|---------|---|--|--|--|---|--|
| | Program language to Chapter 5.5 See Staff Report Section 4.1.1. | | | | | |
| 2 | Develop Groundwater Protection Strategy to include: designation of beneficial uses for groundwater, an action plan to outline the designated level methodology for discharges of waste to land, and an action plan to assess and address incidences of salt and nutrient contamination of groundwater. See Staff Report Section 2.2.4. | FY 2019-20 | 1.00 | <u>0.75</u> | 0.00 | <u>1.75</u> |
| 3 | Develop Instream Flow Criteria/Objectives for the Navarro River and evaluate other rivers as candidates for future flow criteria development, as warranted. Consider development of a regional flow objective (e.g., narrative objective) and corresponding implementation methodology. See Staff Report Section 2.2.5. | FY 2024-25 | 0.40 0.10 | 0.20 0.10 | 0.80 0.10 | 1.40 0.30 |
| 4 | Assess climate change impacts to water quality predicted in the North Coast Region using a landscape scale assessment tool. Assess the need for a Climate Change Adaptation Strategy to include regulatory (e.g., plans and policies) and non-regulatory approaches to mitigate climate change impacts and improve climate change resilience. See Staff Report Section 2.2.6. | FY 2019-20 to complete a landscape assessment tool | 0.40 | 0.40 | 0.40 ⁹ | 1.2 |

⁵ Watershed Stewards are project leads, with assistance from point and non-point source permitting and monitoring and assessment staff.

⁷ Groundwater Protection Specialist is project lead.

⁸ Flow and Riparian Specialist is project lead.

⁹ Planning staff resources for FY 2020-21 are anticipated to be spent using the completed landscape assessment tool to support regulatory and nonregulatory decisions related to climate change mitigation and resilience (e.g., NPDES and WDR permit conditions, 401 certification requirements). Climate change scenario assessment will support staff recommendations relative to the need for a basin plan amendment to incorporate a Climate Change Adaptation Policy. Staff will recommend basin plan amendment project elements as part of the 2021 Triennial Review, as necessary.

| Ranking | Project Description | Projected End Date | FY 2018-19 Staff Resources ¹ | FY 2019-20 Staff Resources ² | FY 202-21 Staff Resources ³ | Total FY 2018-2021 Staff Resources |
|---------|--|-----------------------|--|--|---|--|
| 5 | Establish an Outstanding National Resource Water (ONRW) term and definition in the Basin Plan. Identify ONRW eligible waters, particularly to support climate change resilience and including consideration of the Smith River. See Staff Report Section 2.2.3. | FY 2020-21 | 0.10 | 0.10 | 0.80 ¹⁰ | 1.0 |
| 6 | Revise Biostimulatory Substances objective to address biostimulatory conditions to better support needed actions associated with cyanotoxin assessment and control. See Staff Report Section 3.1.3. | FY 2019-20 | 0.70 | 0.70 | 0.00 | 1.40 |
| 7 | Update Native American Culture (CUL) and Subsistence Fishing (FISH) beneficial use definitions to comport with statewide Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (TSUB), and Subsistence Fishing (SUB) beneficial use definitions adopted by the State Water Board adopted in 2017. Designate uses based on the new beneficial use definitions. See Staff Report Section 3.2.1. | FY 2020-21 | 0.00 | 0.70 <u>0.25</u> | 0.20 <u>0.25</u> | 0.90 <u>0.50</u> |
| 8 | Develop criteria for exemption from seasonal discharge prohibition on point source waste discharge to Eel River, considering flow augmentation benefits. Evaluate Mad and Russian rivers. See Staff Report Section 2.2.2. | On hold | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2021 Triennial Review | FY 2020-21 | 0.00 | 0.00 | 0.50 | 0.50 |
| | TOTAL PLANNING PROGRAM STAFF RESOURCES | | 3.30 | 4.00 | 4.00 | 11.30 |
| | TOTAL STAFF RESOURCES (ALL STAFF) | | 6.05 | 6.50 | 5.15 | 17.70 |

¹⁰ To initiate a robust stakeholder outreach process.

STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2017-0012

COMPREHENSIVE RESPONSE TO CLIMATE CHANGE

WHEREAS:

- 1. Sharp rises in the atmospheric concentration of greenhouse gases over the last century and a half, due to human activity, have led to an increase in global average temperature, and associated climate change.
- 2. Climate change is affecting and will affect different regions in different ways. Current and future impacts include increasing frequency of extreme weather events, prolonged fire seasons with larger and more intense fires, increased tree mortality, heat waves, sea-level rise and storm surges. Changes in hydrology include declining snowpack and more frequent and longer droughts, more frequent and more severe flooding, changes in the timing and volume of peak runoff, and consequent impacts on water quality and water availability. Vulnerabilities of water resources include, but are not limited to, changes to water supplies, subsidence, increased amounts of water pollution, erosion, flooding, and related risks to water and wastewater infrastructure and operations, degradation of watersheds, alteration of aquatic ecosystems and loss of habitat, multiple impacts in coastal areas, and ocean acidification.

Examples of water quality impacts include, but are not limited to: dry periods and drought lowering stream flow and reducing dilution of pollutant discharges, harmful algal blooms due to a combination of warm waters, reduced ability of warm water to hold dissolved oxygen, and nutrient pollution, more erosion and sedimentation caused by intense rainfall events, especially following wildfire, and increased velocity of stream flow, potential sewer overflows due to more intense precipitation and increased storm water runoff, rising sea levels inundating lowlands, displacing wetlands, and altering tidal ranges, and increasing areas subject to saltwater intrusion into groundwater, and water pollution and increased absorption of carbon dioxide creating coastal zone "hotspots" of acidification and hypoxia.

- 3. The risks of abrupt or irreversible changes increase as the magnitude of the warming increases. The <u>Intergovernmental Panel on Climate Change</u> in its <u>Fifth Assessment Report</u> indicates that limiting global average temperature increase to below 2 degrees Celsius is necessary in order to minimize the most catastrophic climate disruptions. The <u>California Climate Change Assessments</u> have provided a strong foundation of research addressing the impacts of climate change on the state, as well as potential response strategies.
- 4. Mitigation, in the context of climate change, refers to actions taken to reduce concentration of greenhouse gases in the atmosphere. The most effective way to reduce greenhouse gas concentrations in the atmosphere is to reduce emission sources.

In the water sector, the principal source of greenhouse gas is the fossil fuel-based energy used to pump, convey, and treat water, and for end-uses of water. Therefore, mitigation can be accomplished through reducing the energy intensity of the water sector, replacing fossil fuels with renewable energy, improving efficiency, and reducing water consumption. Many water and wastewater agencies have already reduced their carbon footprint by deploying renewable energy. The potable and non-potable use of recycled water, the use of storm water, and the use of natural or green infrastructure for storage, movement and treatment, have the potential to reduce greenhouse gas emissions if replacing an existing or future, higher carbon water supplies. Other mitigation includes long-term carbon storage in the environment, and ecosystem management and restoration to ensure that the environmental carbon sink is resilient and grows over time.

- 5. Adaptation, in the context of climate change, refers to actions taken to build resilience, and to adjust to the impacts of climate change on society and the environment.
- 6. <u>Assembly Bill 32 (AB 32)</u>, The California Global Warming Solutions Act of 2006, requires all state agencies to consider and implement strategies to reduce greenhouse gas emissions through 2020. Key components of AB 32 include establishment of a statewide greenhouse gas emissions cap, and development of a Scoping Plan to define how emissions reductions will be achieved. <u>Senate Bill 32</u> sets the state on the path for additional greenhouse gas emission reductions by 2030.
- 7. The AB 32 Scoping Plan is the core of California's climate mitigation efforts. Water-related AB 32 mitigation measures target reducing energy requirements associated with providing reliable water supplies (water use efficiency, water recycling, and reuse of urban runoff), and reducing the amount of non-renewable energy associated with conveying and treating water and providing adequate wastewater treatment (energy efficiency, and increased renewable energy production). The greenhouse gas emissions reductions from these measures may be indirectly realized through reduced energy requirements, and these actions often also have adaptation co-benefits of improving water quality and water supply reliability.
- 8. To help track, evaluate, and report on the climate change impacts the state is working to address, as well as outcomes of those efforts, the Office of Environmental Health Hazard Assessment has developed indicators of climate change in California, including drivers, environmental changes, and impacts of climate change.
- 9. Many aspects of climate change and associated impacts will continue for centuries, even if anthropogenic emissions of greenhouse gases are reduced or stopped. Therefore, California is making efforts to adapt to a changing climate. A principle of the state's adaptation strategy document, <u>Safeguarding California</u>, is to prioritize actions that not only mitigate greenhouse gas emissions, but also help the state prepare for climate change impacts. Improved coordination, implementation, and integration of adaptation planning efforts and funding of the state's climate policies can directly protect the state's natural and built infrastructure, communities, environmental quality, public health, safety and security, natural resources, and economy from the unavoidable impacts of climate change.

10. Executive Order B-30-15 directs the state to continue its rigorous climate change research program focused on understanding the impacts of climate change and how best to prepare and adapt to such impacts. The Executive Order directs State agencies to integrate climate change into all planning and investment, and sets the following principles to guide planning and investment: prioritize actions that both build climate preparedness and reduce greenhouse gas emissions, take flexible and adaptive approaches to prepare for uncertain climate impacts, protect the state's most vulnerable populations, and prioritize natural infrastructure solutions.

Coordination and working collaboratively with state, regional, and local agencies will be vital to ensure effective planning and implementation. Local and regional agencies are critical partners in implementing on-the-ground adaptation, and have an important role to play in California achieving its long-term climate change mitigation and adaptation goals.

- 11. Sustainable groundwater management provides a buffer against drought and climate change. The <u>Sustainable Groundwater Management Act</u> of 2014 provides new authorities for local agencies to directly manage groundwater resources, and requires that local groundwater sustainability plans consider changing conditions over a 50-year planning and implementation period. <u>Regulations</u> require that sustainable groundwater management plans account for population growth, climate change, and sea level rise. When local groundwater management efforts are not successful, the State Water Resources Control Board (State Water Board) may step in to help protect local groundwater resources.
- 12. The <u>California Water Action Plan</u> is a suite of actions developed to build resiliency into California water management and the ecosystems it supports. The Water Action Plan directives include conservation, integrated management, ecosystem protection, drought planning, expanded water storage, recycled water use, and sustainable and integrated financing. The Water Action Plan also emphasizes diversified regional supply portfolios which provide resiliency to drought, flood, population growth, and climate change, and multiple-benefits projects, which are integral to climate mitigation and adaptation.
- 13. On September 18, 2007, the State Water Board adopted <u>Resolution No. 2007-0059</u>, which identified initial actions for climate change response.
- 14. The State Water Board and Regional Water Quality Control Boards (collectively referred to as Water Boards) have played a collaborative and substantive leadership role in promoting water measures that mitigate greenhouse gas emissions and contribute to adaptation to the effects of climate change primarily through issuing permits, developing policies and regulations, and providing financing. These measures include water recycling, water conservation and use efficiency, storm water capture and use, ecosystem protection, enhancement and restoration, drought response, and groundwater recharge.
- 15. Since 2007, the State Water Board has taken on additional responsibilities and functions, including the addition of the Division of Drinking Water, implementation of the Sustainable Groundwater Management Act, and adoption of statewide drought response and water conservation regulations. The State Water Board has also identified the human right to water as a top priority and core value across all programs and activities, and has taken multiple implementation actions to provide safe, accessible and affordable drinking water for all Californians.

THEREFORE BE IT RESOLVED THAT

Given the magnitude of climate change impacts on California's hydrology and water systems, our response to climate change must be comprehensive and integrated into all Water Boards' actions. This resolution lays the groundwork for a robust response that will support California's ongoing climate leadership.

In order to mitigate greenhouse gases the following shall be addressed:

I. Reduce Greenhouse Gas Emissions

- A. Methane Capture/Short-lived Climate Pollutants
 - 1. Division of Water Quality (DWQ) shall, and Regional Water Quality Control Boards (Regional Water Boards) are encouraged to, support the development and implementation of the Air Resources Board's <u>Short-Lived Climate Pollutant (SLCP)</u> <u>Reduction Strategy</u>. Specifically, DWQ shall collaborate with Regional Water Boards, Air Resources Board, CalRecycle, and California Department of Food and Agriculture, to assess opportunities for reducing methane emissions from landfills through organic waste diversion, and co-digestion at existing or new anaerobic digesters, or through composting, while achieving water quality objectives. As a part of the SLCP effort, DWQ and Regional Water Boards are also encouraged to identify opportunities to reduce methane emissions from dairies and concentrated animal feeding operations while achieving water quality objectives.

DWQ shall report on its progress supporting SLCP implementation by December 15, 2017. Regional Water Boards should provide information on their activities to reduce methane emissions in the Water Boards' 2017-18 annual Performance Report.

B. Water Conservation and Efficiency

Office of Research, Planning, and Performance shall, in coordination with the
Department of Water Resources, manage the development and implementation of the
water efficiency and conservation regulations identified in <u>Executive Order B-37-16</u>,
which are critical to making conservation a California way of life.

C. Recycled Water

3. DWQ shall coordinate with the Regional Water Boards to make annual reporting of recycled water data a requirement of waste discharge permits and water reclamation requirements, and work with the Division of Information Technology to develop an online data entry system to track recycled water use. Starting with the 2017-18 annual Performance Report, DWQ shall include a summary on the volume of recycled water used, and types of use.

D. Storm Water

4. Storm water capture and use provides flood protection, augments local water supplies, and increases water supply reliability as a climate adaptation strategy, in addition to water quality benefits, and enhanced aquatic habitats. DWQ shall collaborate with the Department of Water Resources, and other state and local land use agencies to prioritize storm water detention and infiltration.

DWQ shall collaborate with the Office of Information Management and Analysis (OIMA), and the Department of Water Resources to establish a methodology to estimate the amount of storm water captured and used statewide. Starting with the 2017-18 annual Performance Report, DWQ shall include a summary of the information collected.

E. Energy Efficiency and Renewable Energy

5. Division of Financial Assistance, and Division of Drinking Water, as a part of existing technical assistance programs for disadvantaged communities, shall include assistance to finance, construct, upgrade, and operate energy-efficient drinking water and wastewater treatment systems, and to power those systems with zero-carbon and low-carbon renewable energy technologies.

THEREFORE BE IT FURTHER RESOLVED THAT

In order to prepare for and adapt to impacts of climate change the following shall be addressed:

II. Improve Ecosystem Resilience

6. Division of Water Quality (DWQ), Division of Water Rights, Division of Financial Assistance, and Office of the Delta Watermaster shall, and Regional Water Boards are encouraged to, update plans, permits, and policies, and coordinate with other agencies to enhance ecosystem resilience to the impacts of climate change, including but not limited to actions that protect headwaters, facilitate restoration, enhance carbon sequestration, build and enhance healthy soils, and reduce vulnerability to and impacts from fires. Staff shall also collaborate with the California Department of Food and Agriculture, CalRecycle, and other agencies to advance carbon sequestration.

DWQ, Division of Water Rights, and the Delta Watermaster shall, and Regional Water Boards are encouraged to, document climate resilience benefits of ecosystem protection and restoration actions.

- 7. The Executive Director shall engage in dialogue with the United States Environmental Protection Agency (U.S. EPA), external experts, and interested stakeholders on how best to address meeting water quality standards given climate change impacts that contribute to or exacerbate degradation of water quality, including but not limited to increased surface water temperatures, altered surface water flows, changes in water chemistry (such as increases in salinity, bacteria, and nutrient concentrations), hydrology, and ecology.
- 8. Office of Information Management and Analysis (OIMA) shall, by July 1, 2017, coordinate with the Surface Water Ambient Monitoring Program, the Water Quality Monitoring Council and other relevant entities to include climate change impacts as stressors in relevant future analyses and assessments of ecosystems.
- 9. To assist with implementation of the co-equal goals for protecting, restoring, and enhancing the Sacramento-San Joaquin Delta (Delta) ecosystem, development of a more reliable water supply, and implementation of state policy to reduce reliance on the Delta in meeting California's future water supply needs, the Delta Watermaster, Division of Water Rights, and Division of Water Quality shall maintain an ongoing consultation with the Delta Stewardship Council, which runs the Delta Science Program, and with the Delta Protection Commission. The Delta Watermaster shall

- coordinate with OIMA to identify and obtain downscaled projections of climate and hydrology changes expected in the Delta.
- 10. DWQ shall coordinate with the Regional Water Boards to identify actions, including those recommended by the <u>West Coast Ocean Acidification and Hypoxia Science Panel</u>, the Water Boards could take to minimize impacts associated with ocean acidification, hypoxia, increasing temperature and nutrients. By December 15, 2017 DWQ shall recommend areas of research needed to improve the Water Boards' ability to support resilient ocean and coastal ecosystems, and, where applicable and feasible, to maximize use of natural infrastructure for shoreline protection.

III. Respond to Climate Change Impacts

- 11. By July 1, 2018, Division of Drinking Water (DDW) shall, in consultation with Office of Information Management and Analysis (OIMA) begin including climate change vulnerability assessments into community water system sanitary surveys, and shall encourage drinking water systems to use the U.S. EPA's Climate Resilience Evaluation and Awareness Tool or a comparable approach to identify vulnerabilities to climate change impacts. DDW shall work with Division of Information Technology to develop a publicly accessible reporting system for the results of these climate change vulnerability assessments.
- 12. DDW shall work with Division of Financial Assistance to provide technical assistance and financial support to protect drinking water systems that are highly vulnerable to climate change impacts, with emphasis on disadvantaged communities and vulnerable populations. In its reports to the State Water Board, DDW shall provide updates on how vulnerable communities are building resilience to climate change.
 - DDW, in consultation with OIMA, shall by July 1, 2018 evaluate criteria for siting of new drinking water systems using climate change projections, and shall recommend adjustments to siting criteria and standards as needed.
- 13. State Water Board staff shall coordinate with the Regional Water Boards and relevant agencies to identify and recommend actions the Water Boards could take for effective permitting of projects to develop new and underutilized water resources, expand surface water and groundwater storage where appropriate, and add operational flexibility to build and enhance resilience to impacts of climate change.
- 14. State Water Board staff shall, and Regional Water Boards are encouraged to, work with California Department of Forestry and Fire Protection, federal land management, and other relevant agencies to restore and maintain healthy watersheds, reduce vulnerability to catastrophic fires, and support resilience in recovery efforts.
- 15. Division of Water Quality shall work with the Regional Water Boards to evaluate and by July 1, 2018 make recommendations to the State Water Board on the need to modify permits and other regulatory requirements to reduce vulnerability of water and wastewater infrastructure to flooding, storm surge, and sea level rise.

16. When making recommendations on permits and other decisions to protect coastal infrastructure, wetlands, and other near-shore ecosystems, all State Water Board staff shall, and all Regional Water Boards are encouraged to, refer to projections of sea level rise as directed in the most recent Ocean Protection Council Sea-level Rise Guidance Document, the most current data available through <u>Cal-Adapt</u>, and the California Coastal Commission's Sea Level Rise Policy Guidance, and shall consult with the Ocean Protection Council, the Coastal Commission, Bay Conservation and Development Commission, State Lands Commission, and other relevant agencies.

IV. Rely on Sound Modeling and Analyses

- 17. Office of Information Management and Analysis (OIMA) shall work with the California Energy Commission, and the Department of Water Resources to obtain access to relevant climate change data, model outputs and data evaluation services, in part to inform subsequent decisions that will need to take account of extreme events. OIMA and Division of Information Technology shall collaborate on providing these climate change data and model outputs on an open data platform by December 15, 2017.
- 18. OIMA shall assist State Water Board divisions and offices, and Regional Water Boards in the selection and the use of climate change resources described above, as needed to account for and address impacts of climate change in permits, plans, policies, and decisions.
- 19. Division of Water Rights shall, by July 1, 2018, identify data needs, and evaluate and make recommendations on regulatory and policy changes regarding the use of models to account for projected impacts of climate change when conducting water availability analyses and shortage analyses.

THEREFORE BE IT FURTHER RESOLVED THAT

In order to support implementation, provide education, and public engagement the following shall be addressed:

V. Funding

- 20. Division of Financial Assistance (DFA) shall, by July 1, 2017, include climate change mitigation and adaptation objectives in the Clean Water State Revolving Fund (SRF) and Drinking Water SRF Intended Use Plans.
- 21. DFA shall, by July 1, 2017, ensure that applications and environmental reviews for potential projects account for impacts related to climate change, including potential effects of climate change on the viability of funded projects.
- 22. DFA shall evaluate and make recommendations by July 1, 2017 regarding appropriate use of California Public Utilities Commission's Water Energy Cost Effectiveness Calculator, or comparable tools, to quantify and report on energy savings and greenhouse gas reductions from projects in any relevant funding programs.
- 23. The Executive Director shall, beginning in Fiscal Year 2017, to the extent feasible, prioritize and coordinate funding of studies that contribute to implementation of the climate change mitigation and adaptation actions.

VI. Outreach

- 24. Office of Public Affairs shall include how Water Boards' actions support climate change mitigation and adaptation policy goals in media material, including press releases and fact sheets, and through media interviews.
- 25. Office of Public Participation (OPP) shall work with State Water Board divisions and offices, and with Regional Water Boards on the development of multi-lingual educational material for climate change-related actions and initiatives, and shall assist in providing, and support local agencies to provide, information and public outreach on potential climate change impacts to water quality, and options and funding opportunities for adapting to those impacts, including protecting source watersheds, drinking water and wastewater treatment infrastructure. OPP shall work with the Office of Environmental Health Hazard Assessment to identify communities most vulnerable to climate change impacts to ensure that those communities have access to information and technical assistance.
- 26. OPP shall work with State Water Board divisions and offices, Regional Water Boards, and the U.S. EPA to offer consultation to Tribes and solicit feedback on Tribal needs for addressing climate change and related impacts pertaining to the Water Boards' core functions. OPP shall report on its progress annually starting with the 2017-18 Performance Report.

VII. Administration

- 27. Office of Research, Planning, and Performance (ORPP) shall track implementation of this Resolution, and annually report to the State Water Board on the actions taken by divisions, offices, and Regional Water Boards to mitigate greenhouse gas emissions, and prepare for and adapt to impacts of climate change. The annual updates shall include estimated water and energy savings and greenhouse gas emission benefits associated with Water Boards' regulatory actions, and financial assistance provision.
- 28. Office of Legislative Affairs (OLA) shall monitor and identify pending legislation that is related to climate change, including measures that may improve adaptation and mitigation, and ORPP shall provide technical support as needed. Where possible, OLA shall suggest modifications to address causes or impacts of climate change, and work collaboratively with the State Water Board divisions and offices, and Regional Water Boards to develop and sponsor legislation that supports mitigation of greenhouse gas emissions or advances potential for adaptation to projected climate change impacts.
- 29. Office of Information Management and Analysis (OIMA) shall work with relevant programs to identify and develop new performance measures for greenhouse gas emission mitigation, and actions that support adaptation to climate change to be included in the 2017-18 Water Boards' annual Performance Report.

30. ORPP shall identify specific training needs for Water Boards staff by December 15, 2017. ORPP shall work with OIMA to develop training on employing climate models and other relevant tools, data, knowledge, and learning from examples of local success to support Water Boards analyses and decision-making processes.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 7, 2017.

AYE: Vice Chair Frances Spivy-Weber

Board Member Steven Moore Board Member Dorene D'Adamo

NAY: None

ABSENT: Chair Felicia Marcus

Board Member Tam M. Doduc

ABSTAIN: None

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Executive Department

State of California

EXECUTIVE ORDER B-37-16 MAKING WATER CONSERVATION A CALIFORNIA WAY OF LIFE

WHEREAS California has suffered through a severe multi-year drought that has threatened the water supplies of communities and residents, devastated agricultural production in many areas, and harmed fish, animals and their environmental habitats; and

WHEREAS Californians responded to the drought by conserving water at unprecedented levels, reducing water use in communities by 23.9% between June 2015 and March 2016 and saving enough water during this period to provide 6.5 million Californians with water for one year; and

WHEREAS severe drought conditions persist in many areas of the state despite recent winter precipitation, with limited drinking water supplies in some communities, diminished water for agricultural production and environmental habitat, and severely-depleted groundwater basins; and

WHEREAS drought conditions may persist in some parts of the state into 2017 and beyond, as warmer winter temperatures driven by climate change reduce water supply held in mountain snowpack and result in drier soil conditions; and

WHEREAS these ongoing drought conditions and our changing climate require California to move beyond temporary emergency drought measures and adopt permanent changes to use water more wisely and to prepare for more frequent and persistent periods of limited water supply; and

WHEREAS increasing long-term water conservation among Californians, improving water use efficiency within the state's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change; and

WHEREAS these activities are prioritized in the California Water Action Plan, which calls for concrete, measurable actions that "Make Conservation a California Way of Life" and "Manage and Prepare for Dry Periods" in order to improve use of water in our state.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular California Government Code sections 8567 and 8571, do hereby issue this Executive Order, effective immediately.

IT IS HEREBY ORDERED THAT:

The orders and provisions contained in my January 17, 2014 Emergency Proclamation, my April 25, 2014 Emergency Proclamation, Executive Orders B-26-14, B-28-14, B-29-15, and B-36-15 remain in full force and in effect except as modified herein.

State agencies shall update temporary emergency water restrictions and transition to permanent, long-term improvements in water use by taking the following actions.

USE WATER MORE WISELY

- 1. The State Water Resources Control Board (Water Board) shall, as soon as practicable, adjust emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions across the state. To prepare for the possibility of another dry winter, the Water Board shall also develop, by January 2017, a proposal to achieve a mandatory reduction in potable urban water usage that builds off of the mandatory 25% reduction called for in Executive Order B-29-15 and lessons learned through 2016.
- 2. The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010).) These water use targets shall be customized to the unique conditions of each water agency, shall generate more statewide water conservation than existing requirements, and shall be based on strengthened standards for:
 - a. Indoor residential per capita water use;
 - b. Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data;
 - c. Commercial, industrial, and institutional water use; and
 - d. Water lost through leaks.

The Department and Water Board shall consult with urban water suppliers, local governments, environmental groups, and other partners to develop these water use targets and shall publicly issue a proposed draft framework by January 10, 2017.

3. The Department and the Water Board shall permanently require urban water suppliers to issue a monthly report on their water usage, amount of conservation achieved, and any enforcement efforts.

ELIMINATE WATER WASTE

- 4. The Water Board shall permanently prohibit practices that waste potable water, such as:
 - Hosing off sidewalks, driveways and other hardscapes;
 - Washing automobiles with hoses not equipped with a shut-off nozzle;
 - Using non-recirculated water in a fountain or other decorative water feature;
 - Watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and
 - Irrigating ornamental turf on public street medians.
- 5. The Water Board and the Department shall direct actions to minimize water system leaks that waste large amounts of water. The Water Board, after funding projects to address health and safety, shall use loans from the Drinking Water State Revolving Fund to prioritize local projects that reduce leaks and other water system losses.
- 6. The Water Board and the Department shall direct urban and agricultural water suppliers to accelerate their data collection, improve water system management, and prioritize capital projects to reduce water waste. The California Public Utilities Commission shall order investor-owned water utilities to accelerate work to minimize leaks.
- The California Energy Commission shall certify innovative water conservation and water loss detection and control technologies that also increase energy efficiency.

STRENGTHEN LOCAL DROUGHT RESILIENCE

- 8. The Department shall strengthen requirements for urban Water Shortage Contingency Plans, which urban water agencies are required to maintain. These updated requirements shall include adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. While remaining customized according to local conditions, the updated requirements shall also create common statewide standards so that these plans can be quickly utilized during this and any future droughts.
- 9. The Department shall consult with urban water suppliers, local governments, environmental groups, and other partners to update requirements for Water Shortage Contingency Plans. The updated draft requirements shall be publicly released by January 10, 2017.

10. For areas not covered by a Water Shortage Contingency Plan, the Department shall work with counties to facilitate improved drought planning for small water suppliers and rural communities.

IMPROVE AGRICULTURAL WATER USE EFFICIENCY AND DROUGHT PLANNING

- 11. The Department shall work with the California Department of Food and Agriculture to update existing requirements for Agricultural Water Management Plans to ensure that these plans identify and quantify measures to increase water efficiency in their service area and to adequately plan for periods of limited water supply.
- 12. The Department shall permanently require the completion of Agricultural Water Management Plans by water suppliers with over 10,000 irrigated acres of land.
- 13. The Department, together with the California Department of Food and Agriculture, shall consult with agricultural water suppliers, local governments, agricultural producers, environmental groups, and other partners to update requirements for Agricultural Water Management Plans. The updated draft requirements shall be publicly released by January 10, 2017.

The Department, Water Board and California Public Utilities Commission shall develop methods to ensure compliance with the provisions of this Executive Order, including technical and financial assistance, agency oversight, and, if necessary, enforcement action by the Water Board to address non-compliant water suppliers.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this order.

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IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 9th day of May 2016.

EDMUND G. BROWN JR. Governor of California

ATTEST:

ALEX PADILLA Secretary of State