

WRITTEN COMMENTS AND RESPONSES TO WRITTEN COMMENTS

TENTATIVE RESOLUTION NO. R9-2017-0035

This document contains both copies of written comments received and responses thereto. The responses are provided first, followed by copies of comments in the same order. Written comments were solicited during February 3 - 21, 2017.

A. List of Comments Received

1. California Department of Transportation
2. City of San Diego
3. Climate Action Campaign
4. Unified Port of San Diego
5. San Diego County Water Authority

B. Responses to Comments

Commenters in general were supportive of the tentative Resolution's goals to address climate change using sound science and community collaboration. Some comments cautioned against imposing new requirements without providing clarity to permit applicants. Multiple commenters stated a desire to retain flexibility to deal with uncertainty and competing needs, for instance when evaluating the suitability of natural infrastructure alternatives to stabilize developed shorelines.

Responses below are numbered in order of the appearance of comments within each letter received. In most cases the subject is paraphrased for simplicity. The full comments are provided in Section C of this document.

California Department of Transportation

- 1) Subject: Uncertainty in Section 401 Certification Requirements. In order to provide clarity to expectations regarding the section 401 Certification process, the San Diego Water Board hopes to actively engage with Caltrans Headquarters and/or Districts to identify scenarios, models, and goals that help us achieve our respective missions.
- 2) Subject: Process to Discuss Permit Conditions for Transportation Infrastructure. The San Diego Water Board staff welcomes pre-application meetings with Caltrans regarding planned transportation projects. Our project managers and District staff generally have good lines of communication. One desired outcome of this Resolution and subsequent work is to provide staff with tools to address a mutual challenge of ensuring access to and incorporation of relevant data for decision-making.
- 3) Subject: Afford Caltrans Ability to Maintain a Safe Transportation System: The Water Board understands Caltrans faces various challenges in operating, and maintaining the existing transportation infrastructure. Our goal is to help ensure that proposals on coastal and inland shorelines subject to San Diego Water Board oversight meaningfully consider natural infrastructure and other alternatives that would ensure a sustainable and resilient coastline for human and ecosystem beneficial uses.

- 4) Subject: Recognize Variety of Tools to Meet Mutual Goals. The San Diego Water Board understands that Caltrans is conducting vulnerability assessments of its transportation infrastructure that would feed into consideration of site-specific adaptation approaches, including defend, planned or forced retreat, and adaptation. We look forward to continued dialogue in order to understand how such considerations are evaluated as we seek to ensure that infrastructure projects do not unreasonably compromise long term resiliency of local waters to support beneficial uses.

City of San Diego

- 1) Subject: Potential Permit Language: The tentative Resolution does not establish any new requirements. It provides guidance as staff continues to develop implementation steps for addressing climate change. The San Diego Water Board will continue to use the best available science when evaluating permit applications. Existing science demonstrates that rising sea levels and flashier floods can pose threats to beneficial uses of waters if not properly accounted for and mitigated. We recognize that our ability to assess projects will improve as knowledge and certainty with respect to climate change improve. Our goal is to rely on consensus where and when available and to apply informed judgment with consideration of our Key Areas and Practical Vision.
- 2) Subject: Discuss Potential Mitigation Requirements. Part of our implementation effort is to meet periodically with key stakeholders, like the City of San Diego, to discuss mutually beneficial assessment and implementation approaches.
- 3) Subject: Do not Conflict with Statewide Guidance or Strategies. Our staff have been communicating with the State Water Board, which adopted a Climate Change Resolution on March 7, 2017, and with other State agencies developing related guidance. Regional Water Boards have a role within the statewide framework, and our intent is to complement, rather than conflict with statewide efforts.
- 4) Subject: Imported Water in Sustainable Local Water Supply: The San Diego Water Board is committed to help diversify the Region's water supply and reduce imported water. While imported water plays an important role in the Region's water supply, the Water Board's Practical Vision adopted in 2013 for a [sustainable local water supply](#) is: "*An ample, diverse, and sustainable local water supply for the San Diego Region that, combined with conservation and water reuse, minimizes dependence on imported water while maintaining and improving water quality.*" A sustainable local water supply is needed because global climate change impacts, cyclic droughts, and pumping restrictions make the Delta and Colorado River supplies uncertain for the future. As noted in the Practical Vision, imported water also has caused degradation of water resources in the San Diego Region.
- 5) Subject: City Supports a Focus on Reuse of Water Supplies: The San Diego Water Board looks forward to helping the City increase capacity to produce and use recycled water to improve drought resiliency and improve water quality in basins.

- 6) Subject: Comparison of Energy Use of Greenhouse Gas Emissions Related to Water Supply Sources: How and to what extent energy use and greenhouse gas emissions of water source projects may influence San Diego Water Board permitting decisions is a subject that will be considered by staff during the development of a climate change implementation strategy. We look forward to reviewing suggestions from the City and other interested parties.
- 7) Subject: Acknowledge Affordability of Infrastructure Projects. The San Diego Water Board recognizes that infrastructure projects can be costly and that local governments, like the State, must prioritize and make prudent use of public funds. With respect to climate change, the San Diego Water Board is responsible for establishing waste discharge requirements that ensure beneficial uses will be protected over the life of the project. By expressing the need to consider climate change impacts, the Resolution provides potential dischargers the opportunity to identify affordable options to meet the goal of protecting beneficial uses. The San Diego Water Board does not dictate the manner of compliance with requirements, except in specific instances outlined in Water Code section 13360.
- 8) Subject: Collaboration. Collaboration that fosters learning via community-based partnerships and effective communication are cornerstones of our Practical Vision and crucial for the ultimate success of the San Diego Water Board. We look forward to strong relationships with entities such as the San Diego Regional Climate Collaborative, and applaud the City's generous commitment to that organization.

Climate Action Campaign

- 1) Subject: Use of Sound, Data Driven Science. It is critical for the San Diego Water Board to incorporate the latest science and/or technology in decision-making. Accessing and assimilating data on climate change is a challenge. We look forward to working with local, statewide, and federal partners to develop and make use of meaningful science.

Unified Port of San Diego

- 1) Subject: Support for the Regional Board's Efforts. Comment noted. We look forward to working with the Port to preserve beneficial uses of San Diego Bay from effects of climate change.
- 2) Subject: Ensure Consistency with California Initiatives Regarding Climate Change. Regional Water Boards have a role within the statewide framework, and our intent is to complement statewide efforts, including but not limited to efforts of the State Water Board, Coastal Commission, Office of Planning and Research, Ocean Protection Council, and others.
- 3) Subject: Consider Flexible Approaches for Shoreline Infrastructure. The San Diego Water Board understands that within San Diego Bay several current beneficial uses of the water, such as NAV and REC-2, currently rely on hardened shoreline infrastructure. Our intent in prioritizing natural infrastructure is to recognize that potential use of natural infrastructure is not restricted to existing open space areas.

- 4) Subject: Clarify Temporal Scale and Scientific Foundation to Be Used by the Board. The San Diego Water Board recognizes that the precision with which climate change is likely to affect beneficial uses will continue to be refined over the coming years. Our intent is to approach uncertainty with an adaptive approach rooted in the principles and core values of our Practical Vision. That will include using the best available science. For applications regarding professional judgment, our intent is to collaborate where practical with experts at the local, State, and/or federal levels to inform our decision-making. To a large extent, we expect State-sponsored efforts such as the California Climate Change Assessments and statewide agency guidance will form a solid foundation for establishing waste discharge requirements.
- 5) Subject: Consider Climate Change When Setting Remedial Cleanup Actions. Indeed, along with green technologies and recommendations from entities such as the Sustainable Remediation Forum, the San Diego Water Board recognizes the need to consider effects of how cleanup sites can be affected by climate change impacts on hydrology. As such, Paragraph No. 12 of the Resolve section was revised to include examples of potential hydrological issues to consider during review of remediation plans.
- 6) Subject: Collaborate with agencies and academia. The San Diego Water Board understands the importance of collaboration to develop monitoring methods and metrics for climate change. Currently the San Diego Water Board is engaged in such climate change related projects as a member agency of the Southern California Coastal Water Research Project. And, we look forward to complementing those efforts with local agencies, such as the Port District, and non-governmental organizations as opportunities arise.

San Diego County Water Authority

Proposed revisions to the tentative Resolution findings in the “Whereas” section.

- 1) Subject: Whereas No. 6. The first proposed edit was included, but the second was not because sewage or wastewater, rather than bacteria, is the primary threat to contact water recreation.
- 2) Subject: Whereas No. 8. The proposed edits were not included because the draft language was developed to be consistent with wording in the Practical Vision.
- 3) Subject: Whereas No. 9. An edit was made to specify collaboration with stakeholders as part of the leadership role recognized by the San Diego Water Board as important.
- 4) Subject: Whereas No. 10. The proposed edits were made to better highlight the potential benefits of wetlands and other aquatic resources.
- 5) Subject: Whereas No. 15. The proposed edits were made to (a) highlight the understanding of “consequences” of management options as an item challenging staff and stakeholders; and (b) to clarify the San Diego Water Board’s interest in ensuring long-term water resource needs are not compromised by climate change adaptation strategies.

- 6) Subject: Resolve No. 6. A variation of the proposed edit was made to direct staff to incorporate public participation into the Implementation Plan where warranted.
- 7) Subject: Resolve No. 10. The proposed edit was not included because the intent of the list is to highlight scenarios where potential climate change adaptation measures present potentially stark contrasting outcomes to beneficial uses. As an alternative, the Resolution could have been revised to contrast the proposed edit with a less acceptable alternative to the threat of harmful algal blooms. Doing so, however, may have warranted further public comment. Staff intends, however, to review reservoir management issues, such as eutrophication and algal blooms, as part of the 2014 triennial Basin Plan review if resources allow over the next few months.
- 8) Subject: Resolve No. 14. The proposed edits were not included because, though accurate, they are less on-point than the existing language.

C. Comments Received

Comments received begin on the next page.

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENVIRONMENTAL ANALYSIS

P.O. BOX 942873, MS-27
SACRAMENTO, CA 94273-0001
PHONE (916) 653-7136
FAX (916) 653-1128
TTY 711
www.dot.ca.gov*Serious drought.
Help save water!*

February 23, 2017

Mr. Jeremy Hass
San Diego Regional Board
2375 Northside Drive, Suite 100
San Diego, California 92108-2700

Dear Mr. Haas:

Caltrans appreciates the opportunity to review and comment on the proposed San Diego RWQCB Draft Resolution No R9-2017-0035. While Caltrans supports the efforts to address the requirements of the state of California goals towards climate change, we have the following comments to offer.

- We are concerned about the addition of uncertainty to 401 Certification requirements, as well as associated delays in the permitting process. For example, compensatory wetland and stream channel mitigation can be designed to withstand certain climate change factors, but clear definitions would be needed regarding the meaning of most likely hydrological and temperature effects, and the manner in which to determine such effects.
- Please clarify permits conditions for critical transportation system infrastructure, regarding protection of public health, safety, and mobility of California. Caltrans requests a process for active engagement with the SD Regional board on agreements, and policies to partner on solutions in addressing the Governor's Executive Order B-30-15, while allowing flexibility in design safety and integrity of the State Highway System.
- While Caltrans supports the efforts to achieve a sustainable and resilient California, the Board's direction to "*Incentivize and prioritize coastal and inland shoreline protection techniques that protect and preserve, enhance, or restore beneficial uses*" must be balanced with the ability to preserve and protect the states infrastructure investments in a sustainable and resilient manner. Resolution should be stated in a way that affords Caltrans the ability to maintain a safe transportation system.
- Caltrans supports protecting coastal beneficial uses and mitigating impacts caused by infrastructure projects. We request the San Diego RWQCB board recognize that rock (armoring), raising roadway structural sections, increasing drainage capacity (larger storm capacity and flood control), using concrete, as well as the use of natural wetlands to protect our state from climate change hazards, should all be available tools to meet our mutual goals of protecting California.

Mr. Jeremy Haas
February 23, 2017
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If you have any questions regarding this letter please contact Shaila Chowdhury, Chief Environmental Engineer, Division of Environmental Analysis at (916) 653-4446.

Sincerely,



PHILIP J. STOLARSKI
Acting Chief
Division of Environmental Analysis

- c: Jeremy Ketchum, Assistant Division Chief, Division of Environmental Analysis
- Shaila Chowdhury, Chief Environmental Engineer, Division of Environmental Analysis
- Bruce Swanger, Office Chief, Division of Design
- Jennifer Gillies, Office Chief, Biological Studies, Division of Environmental Analysis
- Jennifer Heichel, Office Chief, Environmental Analysis, Division of Environmental Analysis



February 28, 2017

VIA EMAIL TO: sandiego@waterboards.ca.gov

Mr. David Gibson
San Diego Regional Water Quality Control Board
2375 Northside Drive
Suite 100
San Diego, CA 92108

Subject: Comments on Tentative Resolution No. R9-2017-0035, Addressing Threats to Beneficial Uses from Climate Change

Dear Mr. Gibson:

The City of San Diego (City) appreciates the San Diego Regional Water Quality Control Board's (San Diego Water Board) consideration of our comments regarding Tentative Resolution No. R9-2017-0035, Addressing Threats to Beneficial Uses from Climate Change (Tentative Resolution).

In December 2015, the City adopted the Climate Action Plan that is a national model, and is based on five bold strategies that align well with the Regional Board's goals as described in the Tentative Resolution. The City's strategies address: Energy and Water Efficiency; Clean and Renewable Energy; Bicycling, Walking, Transit and Land Use; Zero Waste; and, Climate Resiliency. A few of the City's implementation actions listed below to illustrate consistency with the Tentative Resolution are: the Pure Water program and Urban Water Management Plans to ensure adequate water resources for the future; CIP projects to maintain and replace deteriorating storm water infrastructure; Green Infrastructure projects such as low impact design to capture storm water and improve tree coverage; Conservation of open space and vernal pool habitats; and, Urban tree canopy assessment and planned projects.

Additionally, the City has adopted an Urban Water Management Plan (UWMP) that assures long-term water supply reliability within known supply risk factors. The City's Pure Water project is identified as a planned project in its 2015 UWMP and the project is currently advancing through design and permitting phases of implementation. The City is also partnering with the San Diego County Water Authority (SDCWA) and the U.S. Bureau of Reclamation on a basin study for the San Diego watershed that will help our region to better understand and prepare for impacts to water management associated with climate change.

The City is largely supportive of the San Diego Water Board's efforts to partner with water agencies to proactively prepare for climate change impacts, however, the City encourages the San Diego Water Board to provide more time for public comment and collaborative discussions prior to adoption of this Tentative Resolution. With significant potential impacts across multiple sectors and disciplines, as well as advanced regional efforts already underway to address climate change, additional input prior to adoption is necessary. In brief review, the City provides the following specific comments.

Mr. David Gibson
February 28, 2017

1. The Tentative Resolution states, “This resolution does not ... impose new requirements on the regulated community.” The Tentative Resolution later states “Certain projects may need effective long-term strategies for monitoring, mitigating, and offsetting impacts related to discharges or potential discharges of waste and fill material affected by climate change,” as well as, “[it is the intent of the San Diego Water Board to] propose permit language that includes monitoring, adaptive management, and funding/financing provisions, for reducing vulnerability of regulated facilities to sea level rise or flooding due to climate change.” These provisions seemingly contradict the San Diego Water Board’s aforementioned intent to avoid imposing new requirements on the regulated community.
2. The Tentative Resolution outlines the San Diego Water Board’s intent to propose permit language that includes monitoring, adaptive management, and funding/financing provisions for reducing vulnerability of regulated facilities to climate change. It notes the need to ensure compensatory wetland and stream channel mitigation (such as that required by 401 permits) will withstand effects from climate change. However, the Tentative Resolution does not provide any details regarding potential permit language, what might be required, or the extent of requirements. The City strongly opposes adoption of a Tentative Resolution that fails to provide detail regarding proposed permit language or type and extent of analysis pertaining to required mitigation and leaves potentially broad and ambiguous discretion to staff. To help address these concerns, the City would be willing and interested in participating in coordination calls and meetings to discuss implementation details.
3. On February 9, 2017 the State Water Resources Control Board (State Board) released proposed Resolution No. 2017-XXXX, Comprehensive Response to Climate Change (State Board Resolution). The City encourages the San Diego Water Board to ensure that implementation of the Tentative Resolution does not result in conflicting or duplicative policies or permit requirements with respect to the State Board Resolution or other State guiding documents or strategies such as those in the California Air Resources Board draft Scoping Plan or the Safeguarding California strategy.
4. The definition of a “sustainable local water supply” (Whereas #8) assigns a preferred value for locally produced water supplies that *decreases reliance on imported water*. Inasmuch as the region has a great focus (and appropriately so) on developing cost-effective local supply options, it should be noted that imported water remains a key strategy for the region’s future water supply reliability and drought resilience. Indeed, water imported from the Colorado River has one of the lowest greenhouse gas (GHG) emissions profiles.
5. The City strongly supports a focus on the reuse of water supplies as an effective conservation measure to improve regional drought resiliency and improve water quality in basins.
6. The Tentative Resolutions states that the San Diego Water Board and staff have begun to participate in regional and statewide climate change initiatives and to incorporate climate change considerations into decision-making for projects including but not limited to water recycling and conservation (Whereas #13). The City requests assurance that to the extent that comparisons of energy and GHG intensity among water supply sources are

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calculated, that they will be based on the entire energy and GHG footprint, not just the portion of energy or carbon emissions pertaining to a particular water agency. Certain water supply sources, such as imported water, will have multiple agencies contributing towards the total energy and GHG profiles used in the delivery and treatment of water whereas other supply sources will have the entirety of the energy profile borne by one agency. For example, an acre-foot of water imported by San Diego via the State Water Project will have energy uses borne by the California Department of Water Resources, MWD, the Water Authority and San Diego. The aggregate of all these energy sources, and their related GHG emissions, would represent that water supply's energy and GHG footprints. It is important that any comparison of energy use or GHG emissions related to supply source options be completed for the entire water supply footprint.

7. The City requests that the Tentative Resolution acknowledge affordability. A long-standing concern for local governments is the regulator's process for evaluating how much communities can afford for CWA-mandated and other water infrastructure improvements. In assessing municipalities' capability to finance infrastructure upgrades, EPA relies significantly on guidance issued in 1997¹. This guidance is intended to provide general boundaries to aid EPA, states, and cities in negotiating reasonable and effective schedules for implementing infrastructure upgrades. San Diego urges recognition of community affordability in the Proposed Resolution and asks that a basis upon which affordability can be determined and factored into integrated local planning and decision making processes be included.
8. Finally, the City strongly encourages the San Diego Water Board to collaborate with other agencies and organizations already working to address climate change in the region. The City is a leader in addressing climate change and is committed to action on this complex issue area. Additionally, the City is a member of the San Diego Regional Climate Collaborative (Collaborative) where other leading agencies and local governments share best practices, resources, and collaborate to address issues. The San Diego Water Board would benefit from working closely with the Collaborative to help integrate and align efforts and ensure our region continues to be seen as a national model for climate collaboration.

The City appreciates your consideration of the concerns above, including the primary request for additional discussion prior to adoption of the Tentative Resolution. If you have questions, please contact Ruth Kolb at (858) 541-4328 or at rkolb@sandiego.gov or Cathleen Pieroni at (858) 292-6424 or cpieroni@sandiego.gov.

Sincerely,



Cody Hooven
Chief Sustainability Officer

¹ U.S. Environmental Protection Agency, Office of Water, Office of Wastewater Management, *Combined Sewer Overflows—Guidance for Financial Capability Assessment and Schedule Development*, EPA 832-B-97-004, February 1997, <http://www.epa.gov/npdes/pubs/csofc.pdf>.

Mr. David Gibson
February 28, 2017

DK\CP\rk

cc: Paz Gomez, Deputy Chief Operating Officer, Infrastructure/Public Works
David Graham, Deputy Chief Operating Officer, Neighborhood Services
Alejandra Gavaldon, Director of Federal Government Affairs & Water Policy,
Office of the Mayor
Jack Straw, Director of Land Use and Environmental Policy, Office of the Mayor
Erik Caldwell, Director, Economic Development
Kris McFadden, Director, Transportation & Storm Water Department
Halla Razak, Director, Public Utilities Department
Gene Matter, Assistant Deputy Director, Transportation & Storm Water Department
Davin Widgerow, Deputy City Attorney, City Attorney's Office
Ruth Kolb, Program Manager, Transportation & Storm Water Department
Cathleen Pieroni, External Water Policy Program Manager, Public Utilities Department
Christine Rothman, Development Project Manager III, Transportation & Storm Water
Department



California Regional Water Quality Control Board, San Diego Region
Attention: Executive Officer David W. Gibson
2375 Northside Drive, Suite 100
San Diego, California 92108
Via email: sandiego@waterboards.ca.gov

February 23, 2017

RE: Tentative Resolution No. R9-2017-0035; Addressing Threats to Beneficial Uses from Climate Change

Dear Executive Officer Gibson,

Climate Action Campaign (CAC) is a San Diego-based nonprofit organization with a simple mission: to stop climate change. We advocate for policy and program climate solutions at the local level in order to reduce greenhouse gas (GHG) emissions, increase climate resiliency and protect future generations. We are pleased to support the Regional Water Quality Control Board's Tentative Resolution No. R9-2017-0035; Addressing Threats to Beneficial Uses from Climate Change.

As you know, water is a limited resource and we face increasing threats to our water quality and water supply as temperatures continue to rise in California and beyond. We encourage the Regional Board to continue to use sound, data-driven science in order to make planning decisions, including development of water conservation measures such as bioswales and other natural solutions to absorb our polluted runoff and keep water in the ground for positive reuse. We also recognize that it is important to protect beneficial uses of water such as recreational or ecological use so that we have a thriving biodiversity in our ecosystem, and that everyone can enjoy swimmable and fishable water systems.

We support each recommendation listed on the resolution. From our perspective, **recommendations 5, 6, 12, and 16** should be prioritized.

We applaud the Regional Board for proposing to respond and adapt to climate change and to reduce the risk associated with the unpredictable and existential nature of these threats.

Thank you again for your commitment to protect our water quality and water supply for now and future generations.

Sincerely,

Carolina Rodriguez-Adjunta
Deputy Director of Operations and Programs
Climate Action Campaign



VIA EMAIL

February 23, 2017

California Water Quality Control Board – San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108-2700
Attention: Jeremy Haas
Email: sandiego@waterboards.ca.gov

Subject: Comment – Tentative Resolution No. R9-2017-0035

Dear Mr. Haas:

The San Diego Unified Port District (District) appreciates the opportunity to provide comments in response to Tentative Resolution No. R9-2017-0035 Addressing Threats to Beneficial Uses from Climate Change (Tentative Resolution). As the public trustee of the tidelands of San Diego Bay (Bay), the District shares a common interest with the San Diego Regional Water Quality Control Board (Regional Board) in ensuring the protection of the Bay's beneficial uses. The District respectfully submits the following comments on the Tentative Resolution.

1. Support for the Regional Board's efforts to address threats to beneficial uses from climate change.

With the adoption of the District's Climate Action Plan in 2013, the District became one of the first ports in the United States to establish goals and measures to reduce greenhouse gas emissions and ensure a sustainable long-term vision for the Bay and surrounding tidelands. The first step to address climate change is to mitigate greenhouse gas (GHG) emissions from activities, which in turn provides co-benefits such as air quality improvements, resource conservation, water quality improvement, and natural habitat protection. The District's Climate Action Plan contains 75 measures to reduce emissions and promote co-benefits including conservation of open spaces and the restoration of aquatic resources, which are in accordance with the Tentative Resolution. As such, the District supports the Regional Board's efforts to preserve the beneficial uses of the Bay from the impacts of climate change and remains committed to working collaboratively with the Regional Board to fulfill our agencies' shared goals.

Mr. Jeremy Haas

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2. Ensure consistency with California initiatives regarding climate change.

California has been progressively researching and providing guidance to local governments regarding climate change and its impacts. A number of state agencies have released planning documents and guidelines to address specific components of climate change such as the Coastal Commission's Sea Level Rise Policy Guidance, which provides strategies assessing and adapting to sea level rise when updating Local Coastal Programs and issuing Coastal Development Permits. In addition, California is conducting the Fourth Climate Change Assessment which will update past scientific assessments of climate change and may refine previous results. Meanwhile, the California Office of Planning and Research is amending the General Plan Guidelines to include climate change in planning process. With so many statewide programs to address climate change and the possibility of conflicting guidance, the District believes that, where applicable, the Regional Board's Tentative Resolution should ensure consistency with other California climate-related initiatives.

3. Consider flexible approaches for shoreline infrastructure to protect beneficial uses in bays and harbors.

The Tentative Resolution indicates that the Regional Board may prioritize natural infrastructure solutions over hardscape infrastructure. While natural infrastructure is an important adaptation strategy along natural habitat areas such as wetlands or along parks and other open spaces in bays and harbors, they may not be appropriate in other areas. Much of San Diego Bay is already armored with bulkheads and revetment to protect urban areas from erosion or coastal flooding, which may undermine infrastructure and pose a risk to public safety. Current hardscaped shorelines are appropriate to maintain the presence of coastal uses and provide public access to the waterfront. Moreover, an important beneficial use designation for San Diego Bay includes Navigation to accommodate commercial as well as military shipping. Shoreline infrastructure to support the berthing of vessels must be designed to protect commerce and promote maritime navigation in the San Diego Region. Therefore, the District requests that the Tentative Resolution acknowledge that strategies may vary depending on the beneficial uses which need to be protected.

4. Provide clarification on the temporal scale and the scientific foundation for which Regional Board will consider climate change impacts to beneficial uses in planning, permitting, site remediation, monitoring, and enforcement.

Mr. Jeremy Haas

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While some impacts of climate change have begun to occur, there is still great uncertainty in the science as to the frequency and magnitude of specific climate-related events. For example, the National Research Council of the National Academy of Sciences conducted an analysis of current and future sea level rise along the west coast of the United States in 2012¹. The study includes a range of sea level rise projections for different time periods through 2100. The NRC's report acknowledges great uncertainty in the long-term due to the ambiguity of land and sea based ice-sheet melting, which may increase sea level rise. As a result, when considering climate change and its effects on beneficial uses in planning, permitting, site remediation, monitoring, and enforcement, it is important for the Regional Board to clearly identify the best available science and long-term expectancy of actions. For instance, if mitigation to plant eelgrass is a requirement of a project, the location and specifications for restoration should be aligned with best available science to ensure the longevity of the mitigation measure.

5. Consider climate change when setting remedial cleanup actions.

The District supports the concept of using green cleanup methods and technologies during remedial cleanup actions. Several areas within San Diego Bay are being investigated with potential clean up actions likely forthcoming. Effects from climate change have the potential to impact several uses of the bay especially sensitive shallow water habitats, shorelines, navigation corridors and berthing areas due to sediment transport and erosion. Developing appropriate cleanup strategies that are resilient to climate change effects is paramount for the long-term success of such remedies. As such, the District encourages the Regional Board to consider likely impacts of increased storm surge, increased upstream runoff, and storm intensity when evaluating capping, sediment cover, or natural attenuation as remedial actions.

6. Collaborate with state and local agencies and academia to develop monitoring methods and metrics for climate change.

As climate change is an evolving science, there is little guidance on monitoring techniques or metrics to evaluate the impact to beneficial uses. The District encourages the Regional Board to collaborate with state and local agencies as well as academia to determine efficient methods to assess climate change and develop metrics to measure changes. Standardized methods will be important

¹ National Research Council. 2012. Sea Level Rise for the Coasts of California, Oregon, and Washington: Past Present, and Future.

Mr. Jeremy Haas

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Subject: Comment – Tentative Resolution No. R9-2017-0035

for comparison across California. The District is eager to work with the Regional Board to develop and evaluate these methods.

The above comments offered by the District are suggestions to assist the Regional Board in effectively implementing the Tentative Resolution. The District is committed to continued collaboration with the Regional Board to address impacts to beneficial uses from climate change.

If you have any questions or would like additional information related to the comments submitted herein, please contact Philip Gibbons at (619) 725-6037 or via email at pgibbons@portofsandiego.org.

Sincerely,



Karen Holman

Principal,

Planning & Green Port

cc: Jason Giffen, Assistant Vice President, Planning & Green Port
John Carter, Deputy General Counsel IV, Office of the General Counsel



San Diego County Water Authority

4677 Overland Avenue • San Diego, California 92123-1233
(858) 522-6600 FAX (858) 522-6568 www.sdcwa.org

February 23, 2017

MEMBER AGENCIES

Carlsbad
Municipal Water District

City of Del Mar

City of Escondido

City of National City

City of Oceanside

City of Poway

City of San Diego

Fallbrook
Public Utility District

Helix Water District

Lakeside Water District

Olivenhain
Municipal Water District

Otay Water District

Padre Dam
Municipal Water District

Camp Pendleton
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Rainbow
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Ramona
Municipal Water District

Rincon del Diablo
Municipal Water District

San Dieguito Water District

Santa Fe Irrigation District

South Bay Irrigation District

Vallecitos Water District

Valley Center
Municipal Water District

Vista Irrigation District

Yuima
Municipal Water District

OTHER REPRESENTATIVE

County of San Diego

David Gibson, Executive Officer
San Diego Regional Water Quality Control Board
2375 Northside Drive, Suite 100
San Diego, CA 92108-2700

Subject: Comment - Tentative Resolution No. R9-2017-0035

Dear Mr. Gibson,

The San Diego County Water Authority appreciates the opportunity to comment on the San Diego Regional Water Quality Control Board's (San Diego Water Board) Tentative Resolution No. R9-2017-0035 on climate change, which will be considered for adoption at your April 12, 2017 Board Meeting. We recognize the challenges and potential impacts that climate change may have on water resources, and support the San Diego Water Board's efforts to address potential threats to the region's beneficial uses.

The Water Authority is the wholesale water agency in San Diego County with 24 retail member agencies, serving a population of 3.3 million residents and supporting the region's \$222 billion economy. Our mission is to provide a safe and reliable water supply to our member agencies, and planning for the potential impacts of climate change is integral to meeting this mission. We support development of a proactive approach by the San Diego Water Board that recognizes the importance of climate change adaptation in water resource management strategies, and includes collaboration between the San Diego Water Board and the region's water suppliers.

In collaboration with our member agencies, the Water Authority has been implementing a long-term strategy to diversify the region's supply sources since the early 1990s. This strategy includes water use efficiency and the development of local supplies such as recycled water, brackish groundwater recovery, seawater desalination and potable reuse, that are highly reliable and minimize vulnerabilities to changing weather conditions. The next increment of supply is expected to be potable reuse and will further reduce dependence on imported sources, protect against droughts, and enhance climate change preparedness.

A public agency providing a safe and reliable water supply to the San Diego region

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As part of our long term planning efforts, the Water Authority evaluates and plans for the influence of climate change on the region's projected water resources mix, including through the 2015 Urban Water Management Plan. In 2014, the Water Authority became one of the first water agencies in California to voluntarily adopt a Climate Action Plan to address carbon footprint and Greenhouse Gas (GHG) emissions, with a goal of minimizing Water Authority GHG emissions through reduction measures focused on energy efficiency and opportunities to develop renewable energy. We are also an active member of the Water Utility Climate Alliance, which consists of 10 of the largest water providers in the nation, collaborating on climate change adaptation and GHG mitigation.

The Water Authority has partnered on several research projects to better understand the uncertainties and impacts associated with climate change on water demand and local water resources in the San Diego region. Currently we are partnering with the City of San Diego and the U.S. Bureau of Reclamation on the San Diego Basin Study to examine uncertainties associated with climate change impacts on the San Diego region's local and imported water supplies and are planning to work together with the San Diego Water Board to help ensure the success of this study.

Given that water supply reliability is our mission and highest priority, the development of local reliable supplies becomes even more important as an adaptation to climate change. Although some new local supplies such as desalination can require greater energy inputs, these same local supplies also provide the highest water supply reliability. Ensuring reliability now and into the future means investing in new sources of water and projects that reduce the region's vulnerability to drought and shortages from any one source.

The San Diego Water Board's Tentative Resolution highlights the State's efforts to prepare for and adapt to a changing climate through its *Safeguarding California* plan. We support strategies identified in *Safeguarding California* to ensure a reliable water supply through increased regional self-reliance, local water supply diversification, and water use efficiency, all of which are important components of the Water Authority's diversification strategy. *Safeguarding California* emphasizes that these strategies must be implemented by local and regional water management agencies, such as the Water Authority and our member agencies. Efforts by the San Diego Water Board to protect and enhance the region's water resources must include a collaborative approach with the region's public water suppliers to support our efforts to maintain safe and reliable water supplies including adapting to climate change.

We respectfully submit as an attachment our proposed changes to the Tentative Resolution for your consideration. Thank you for the opportunity to provide comments. Please contact Goldy Herbon if you have any questions at (858)522-6767 or by email at GHerbon@sdewa.org.

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Sincerely,

A handwritten signature in blue ink that reads "Toby J. Roy". The signature is written in a cursive style with a large, stylized initial 'T'.

Toby Roy, Water Resources Manager
Sent via Electronic Mail to: sandiego@waterboards.ca.gov
Attachment: Proposed Changes to Tentative Resolution No. R9-2017-0035

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Attachment
Proposed Changes to Tentative Resolution No. R9-2017-0035

WHEREAS:

6. Climate change increases the risk of public health threats that affect beneficial uses of waters, such as those from harmful algal blooms in drinking water reservoirs and swimming areas, pathogens in fish or shellfish, and sewage-bacterial contamination of swimming areas.

8. The production, storage, transport and delivery of water for agricultural, residential, and commercial needs have significant energy and greenhouse gas implications. ~~A sustainable~~ local water supplies supply is one that decreases reliance on imported water, provide drought resiliency, and can efficiently uses support energy efficiency to produce and transport water suitable for municipal, agricultural, industrial and other human uses ~~while also optimizing the reuse of water~~.

9. Mitigating climate change effects relies on actions at the local level, and there are many current efforts in the San Diego Region to reduce greenhouse emissions, assess climate change risks, and plan for adaptation actions. The San Diego Water Board should collaborate with public water suppliers to support efforts to must play a strong role in developing long-term strategies for monitoring, mitigating, and offsetting the local water resource impacts of global climate change.

10. Wetlands provide resilience for both human and ecosystem beneficial uses of water threatened by climate change, ~~and the r~~Restoration of aquatic resources, including wetlands, can play crucial roles in reducing risks from climate change by improving water quality, protecting water resources, reducing GHG emissions, and enhancing habitat. In Resolution No. R9-2015-0041, the San Diego Water Board recognized threats of climate change to aquatic ecosystems and directed staff to promote and advance aquatic ecosystem restoration. Subsequent law (e.g., Assembly Bill 1482) requires state agencies to promote the use of natural systems and infrastructure, such as wetlands, in climate change adaptation plans.

15. Challenges affecting the San Diego Water Board's ability to implement key actions for addressing climate change threats to beneficial uses include:

- a. Ensuring staff have a strong conceptual understanding of the key stressors induced by climate change and the impacts of these stressors.
- b. Improving staff and stakeholder understanding of the scope, timing, cost, feasibility, ~~and effectiveness~~ and consequences of various management options to address climate change risks.
- c. Accessing and assimilating relevant data for decision-making.

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- d. Collaborating and communicating with external parties to influence their waste discharge plans.
- e. Integrating climate change considerations into program work plans and statewide performance measures.
- f. Ensuring short-term and long-term water resource and planning needs are met without sacrificing long-term beneficial uses.

THEREFORE, BE IT RESOLVED THAT it is the intent of the San Diego Water Board to:

6. Complete a Climate Change Readiness Implementation Plan in accordance with the 2017 Operational Plan presented to the Board in February 2017 (Tentative Resolution No. R9-2017-0029) that provides opportunities for public participation.

10. Advocate for solutions that protect beneficial uses from direct and indirect effects of climate change, including but not limited to prioritizing:

- a. Natural infrastructure solutions, including emphasizing the restoration, enhancement, and creation of wetlands, both submerged and terrestrial, over hardscape infrastructure in climate adaptation plans.
- b. Water capture, recharge, and reuse solutions over increased effluent discharges.
- c. Relocation of vulnerable infrastructure over in-place adaptation measures that impair the resilience of water resources to support beneficial uses.
- d. Management of nutrients in surface water runoff to avoid harmful algal blooms and eutrophication.

14. ~~Ensure~~ Align compensatory wetland and stream channel mitigation, such as required in Clean Water Act section 401 Water Quality Certifications, ~~will withstand with~~ the most likely hydrological and temperature effects from climate change.