

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**MEETING OF OCTOBER 31, 2023  
SOUTH LAKE TAHOE, CA**

**ITEM 5**

**CLIMATE CHANGE PROGRAM ANNUAL REPORT**

**CHRONOLOGY**

November 20, 2019	The Lahontan Water Board adopted <a href="#">Resolution No. R6T-2019-0277</a> formalizing a Climate Change Mitigation and Adaptation Strategy (Climate Change Strategy) for the Water Board. The Climate Change Strategy provides direction and guidance on the development and implementation of actions to address climate change impacts. Resolution R6T-2019-0277 directs staff to develop an action plan for purposes of making progress toward protection of the four key resource areas, and to report annually regarding progress.
March 10, 2021	Water Board staff presented an informational item to the Lahontan Water Board and a staff report titled “Climate Change Mitigation and Adaptation Action Plan for the Lahontan Region” ( <a href="#">Climate Change Action Plan</a> ). The Climate Change Action Plan provides more context to the Water Board’s role in mitigation and adaptation efforts, summarizes guidance contained in the Climate Change Strategy, and presents a framework to clarify how actions are developed, prioritized, and reported upon.

**BACKGROUND**

The Lahontan Water Board prepared its Climate Change Strategy, which was formalized with the adoption of [Resolution No. R6T-2019-0277](#) (Resolution) in November 2019. The Resolution and Climate Change Strategy describe the Lahontan Water Board’s role in protecting water quality and beneficial uses within the context of California’s climate change efforts and summarizes anticipated regional climate change impacts.

The Resolution directs staff to focus its efforts, as resources allow, to address the impacts of climate change on the four key resource areas identified in the Policy Statements:

- (1) Protection of Wetlands, Floodplains and Headwaters
- (2) Protection of Infrastructure
- (3) Protection of Groundwater Quality & Supply
- (4) Protection of Headwater Forests and Promoting Fire Resiliency

## BACKGROUND

Additionally, the Resolution and the Climate Change Strategy directs Water Board staff to develop an action plan. The Climate Change Action Plan was brought forth as an informational item presented to the Lahontan Water Board in March 2021. It contains more context to the Water Board's role in mitigation and adaptation efforts, summarizes guidance contained in the Climate Change Strategy, and provides a framework to clarify how actions are developed, prioritized, and reported upon. Resolution R6T-2019-0277 directs the Executive Officer, or their designee, to report annually to the Lahontan Water Board on progress of program specific climate change response related actions from the previous year. The Climate Change Action Plan, Section 5, provides additional guidance regarding the content of annual reporting.

## DISCUSSION

The Climate Change Action Plan Annual Report (Annual Report) presents information to the Lahontan Water Board and public on progress related to implementation of the Climate Change Strategy and Climate Change Action Plan (collectively Climate Change Program). This year's annual presentation to the Board also includes a guest presentation by researcher and professor Michael Dettinger on the recently released study *Simulated Hydrologic Responses to Climate Change Projections for the Lake Tahoe Basin*.

This Annual Report describes climate change actions that were accomplished during fiscal year 2022-2023 (July 2022-June 2023), actions that are ongoing and proposed for the coming fiscal year (July 2023- June 2024), updates on partnerships and outreach, and a summary of emerging issues and statewide policy updates. Accomplishments supporting the Climate Change Program are summarized in Enclosure 1. Over the 12-month reporting period for this update, the Water Board adopted seven Orders that have a nexus to one or more of the Policy Statements. Of note is the approval of Board Order R6T-2023-0020 that authorizes discharges of dredge and fill material for lake-wide implementation of non-chemical controls for aquatic invasive plants in Lake Tahoe, including marinas and tributary inlets. This order will streamline management and removal of aquatic weed infestations implemented by the Tahoe Resource Conservation District. Board staff made use of the Statutory Exemption for Restoration Projects to streamline compliance with the California Environmental Quality Act and permitting for floodplain restoration projects. Board staff also finalized a Salt and Nutrient Planning Strategy (SNPS) to provide a region-specific approach to evaluating and prioritizing groundwater basins and update existing Salt and Nutrient Management Plans. Implementation of the SNPS will help protect groundwater from constituents of concern including salts and nutrients.

In fiscal year 2023-2024 Water Board staff will continue implementation of the framework that was presented in the Climate Change Action Plan (Section 4). This includes summarizing and tracking potential actions, using work planning to refine the proposed work, and enhancing internal communication related to integration of climate change into our numerous programs. The Regional Monitoring Coordinator will continue attending quarterly climate change meetings hosted by the State Water Resources Control Board. These meetings include representatives from the other

## DISCUSSION

Regional Boards and the many divisions and offices that comprise the State Water Resources Control Board.

Additional targeted projects include updating the planning framework and management questions for our regional Surface Water Ambient Monitoring Program (SWAMP). This update will include exploring ways that we might incorporate climate change elements into our SWAMP program and incorporating recommendations from the 20-Year Status and Trends report. Other targeted work for the coming fiscal year includes on-going work on the 2022 Triennial Review item Wetland, Riparian and Floodplain Updates. Board staff are also working to bring a new iteration of the Timber Waiver to the Board in 2024 which is our primary tool to regulate impacts to Waters of the State from forest management activities.

Water Board staff continue to engage in numerous partnerships that support the Policy Statements, including with the California Tahoe Conservancy, the Sierra Meadows Partnership, the State Board's wildfire resiliency and forest activities program, and with the multiple agencies involved with oversight of the Mojave River Watershed Mitigation Bank.

Significant ongoing and emerging issues that are exacerbated by climate change include ongoing occurrences of freshwater harmful algal blooms, extreme weather events including the historically wet winter of 2022-2023, and aquatic invasive species. Board staff responded to requests for permitting of emergency work related to infrastructure impacts caused by the wet winter. Board staff formed an internal working group to prepare a region-wide strategy to help focus and prioritize work to improve our response to increased threats from aquatic invasive species.

The State Water Resources Control Board (State Board) and the State of California continue to take actions to mitigate and adapt to climate changes, and update policies related to climate change resilience and protection of natural resources. The State of California is continuing to make progress on the [5<sup>th</sup> Climate Change Assessment](#). These assessments contribute to the scientific foundation for understanding climate-related vulnerability at the local scale and informing resilience actions, while also directly informing State policies, plans, programs, and guidance. In November 2022 OEHHA released the fourth edition of its [Indicators of Climate Change in California Report](#) documenting the wide-ranging impacts that changing climate is having on the state's weather, water supplies, plants, animals and human health. The report also includes specific information on impacts to two tribal communities in the Lahontan region, the Big Pine Paiute Tribe and the Bishop Paiute Tribe.

This Board Item also includes a presentation on the recently released work Simulated Hydrologic Responses to Climate Change Projections for the Lake Tahoe Basin. Using the Precipitation Runoff Modeling System, this study provides a new set of higher resolution projections of snowpack and streamflow responses to climate changes for the Lake Tahoe Basin than previous studies. The highly resolved projections provide an opportunity to anticipate future trends and changes in the Lake

**DISCUSSION**

Tahoe Basin and identify climate-change hotspots and refuges. The presentation will include a discussion of the approach, methodology, and findings.

**CLIMATE CHANGE RESPONSE**

Presentation of the Annual Report is consistent with Resolution R6T-2019-0277, the Water Board's Climate Change Strategy by providing an update to the Lahontan Water Board as directed by Resolution R6T-2019-0277.

**PUBLIC OUTREACH/INPUT**

No public outreach was associated with this item.

**PRESENTERS**

Laurie Scribe, Water Board, Senior Environmental Scientist - Specialist

**RECOMMENDATION**

This is an informational item, and no formal action is requested, though Water Board members may give direction to staff.

ENCLOSURE	ITEM	BATES NUMBER
1	Summary of Climate Change Actions July 2022 to June 2023	5 - 5

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## Lahontan Regional Water Quality Control Board

### Summary of Actions Supporting the Climate Change Program

July 2022 to June 2023 (Fiscal Year 22/23)

#### **Adopted Orders and Other Lahontan Board Actions that support the Policy Statements:**

[Board Order R6T-2023-0025](#)

Adoption of a Basin Plan Amendment to Remove the Regionwide Bacteria Water Quality Objective and Insert Discussion of the REC-1 Bacteria Provisions

[Board Order R6T-2023-0020](#)

Clean Water Act Section 401 Water Quality Certification and Basin Plan Prohibition Exemption, Lake-wide Control of Aquatic Invasive Plants

[Board Order R6T-2023-0006](#)

Renewal of Waiver of Waste Discharge Requirements for Grazing Operations in the West Walker River Watershed (Bridgeport Valley and tributaries)

[Board Order R6V-2023-0004](#)

Closure and Post-closure Waste Discharge Requirements for Resurgence Solar I, LLC and Resurgence Solar II, LLC Solar Electric Generating Systems (Segs) III Through VII Three Surface Impoundments Two Land Treatment Units, and Pond No. 5 Landfill (Resurgence Solar I and Resurgence Solar II landfill)

[Board Order R6T-2022-0057](#)

National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Baseload Power Wendel, LLC, Wendel Geothermal Power Plant

[Board Order R6T-2022-0047](#)

Resolution for Supporting Implementation of The Bishop Creek Vision Plan

[Board Order R6T-2022-0046](#)

Renewed Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water/Urban Runoff Discharges From El Dorado County, Placer County, and the City Of South Lake Tahoe Within The Lake Tahoe Hydrologic Unit

#### **Other accomplishments that support the Climate Change Program:**

- Finalized a region-specific [Salt and Nutrient Management Planning Strategy](#) that supports groundwater protection and alignment with the Sustainable Groundwater Management Act. This Strategy includes the Groundwater Basin/Subbasin Alignment Project described in the 2022 Triennial Review.

## Summary of Actions Supporting the Climate Change Program

- Progress on implementation of Senate Bill 1215 (Wastewater Consolidation Program) as presented at the [March 1 2023 Board meeting](#). SB 1215 implementation will reduce discharges to groundwater from onsite septic systems and support community connections to modern wastewater treatment systems.
- Ongoing work to support the utilization of [Mojave River Watershed Mitigation Bank](#). The initial release of credits sold out during Fiscal Year 22/23.
- Finalized an internal Forestry Program Strategy that will guide regional forestry program activities to support water quality protection during timber harvest and vegetation management, and fuel reduction activities.
- Conducted public outreach on proposed revisions to the Lahontan Water Board's Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management Activities (2014 Timber Waiver).