CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MEETING OF FEBRUARY 11, 2015
APPLE VALLEY, CA

ITEM: **9**

SUBJECT: **EXECUTIVE OFFICER'S REPORT**

DISCUSSION: The Executive Officer's report includes the following:

ENCLOSURE:	ITEM:	BATES NUMBER:
1	Discussion of Standing Items	**9-5**
2	Executive Officer's Written Report	**9-9**
3	Notification of Closure of Underground Storage Tanks	**9-19**
4	Notification of Spills	**9-23**
5	Status of Actions for PG&E Hinkley Chromium Contamination 2015	**9-29**
6	Environmental Justice Program Implementation 2015	**9-33**

ENCLOSURE 1

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

REPORT ON STATUS OF STANDING ITEMS

The Water Board has requested that it be kept informed of the status of a number of issues. The following table lists the items, the reporting frequency and the dates the items are due.

ENTIRE BASIN		
ISSUE	**FREQUENCY**	**DUE DATE**
Lake Tahoe Nearshore Standards	Semi-Annual	July 2015 January 2016
Status of Basin Plan Amendments	Semi-Annual	July 2015 January 2016
Status of Grants	Annually	March 2015
Caltrans Statewide General Permit/Tahoe Basin	Annually	July 2015
Tahoe Municipal Permit	Annually	July 2015
County Sanitation Districts of Los Angeles - District No. 14	Annually	January 2016
County Sanitation Districts of Los Angeles - District No. 20	Annually	January 2016
Status of Dairies	Semi-Annual	August 2015 January 2016
City of Barstow	Annually	September 2015
Pacific Gas & Electric Company	Each Southern Board Meeting	February 2015
Leviathan Mine	Semi-Annual	July 2015 January 2016
Salt & Nutrient Management Plans	Semi-Annual	May 2015 November 2015
Onsite Septic Tanks	Annually	June 2015
Bridgeport Grazing Waiver	Annually	June 2015
Bacteria Water Quality Objectives Project	Semi-Annual	May 2015 November 2015

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ENCLOSURE 2

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Lahontan Regional Water Quality Control Board

EXECUTIVE OFFICER'S REPORT

February 2015

STATE AND REGIONAL

1. **ECM Paperless Office Rollout** – *Mary Fiore-Wagner*

On May 1, 2015 the Water Board will be reducing our paper use, increasing efficiency, and providing a more effective way for our staff, the public, and interested parties to view water quality documents in an electronic form. The Water Board will soon join over 80% of statewide Water Board staff already implementing a paperless office or Electronic Content Management (ECM) system.

To notify our stakeholder contacts and permittees, we are preparing a mass mailing to be sent out in March. The letter will request that all regulatory documents, submissions, materials data, and correspondence that are normally submitted to us as hard copies be converted to a Portable Document Format (PDF). Dischargers who currently submit electronic documents to CIWQS, GeoTracker, or SMARTS will continue submitting electronically as previously required.

The transition to ECM fosters transparency by providing all members of the public broad and convenient access to records. Additionally, ECM increases our response to public information requests, since specific documents can be retrieved in seconds.
Conversion to ECM provides a document management system that more efficiently serves the operational requirements of the Water Board. By using the ECM technology, paper documents will be processed through specialized computer software capable of converting, cataloging, and indexing information into fully searchable files. Indexed documents will be readily retrievable on most office PC desktops using a keyword, phrase or numeric query for rapid on-screen review. The robust query functions and ability of ECM to communicate with existing State Board databases will help staff save time by synthesizing a broad array of information and records. Documents will be stored in a secured electronic format using far less office space. To date thousands of trees have been saved with the conversion and storage of over 1.7 million documents to the electronic document repository of ECM.

2. **State Water Board Proposes Bacteria Objective for Contact Recreation** – *Rich Booth*

The State Water Board is proposing amendments to the statewide Water Quality Control Plans for Inland Surface

Waters, Enclosed Bays and Estuaries and the Ocean Waters of California (Ocean Plan) to include updated water quality objectives for bacteria to protect human health for the beneficial use of water contact recreation (REC 1) in fresh and marine waters (proposed amendments). The proposed amendments may include a revised indicator organism [*Escherichia coli* (*E. coli*) or *enterococci*] and risk protection level.

Background

Clean Water Act section 304 requires U.S. EPA to develop and publish criteria recommendations to aid states and tribes in developing water quality standards. Those recommendations are not regulations themselves. States may adopt water quality criteria based on U.S. EPA's criteria recommendations or criteria developed using other scientifically defensible methods. A state's adopted water quality standards are the basis for water quality control actions.

In 1986, U.S. EPA revised its ambient water quality criteria recommendations for bacteria to protect human health, which advised that the indicators of health risks from bacteria in marine and fresh water be established as *E. coli* and enterococci instead of fecal coliform. U.S. EPA based its revised criteria recommendations on a review of epidemiological studies correlating gastrointestinal illness to specific bacteria indicators.

In 2012, U.S. EPA issued new recreational water quality criteria recommendations for protecting human health in all coastal and non-coastal waters designated for primary contact recreation use. As most Regional Boards' basin plans are not currently consistent with the 2012 recreational water quality criteria, the State Water Board is proposing to adopt the proposed amendments to provide what it states as "efficient and consistent implementation statewide."

Scoping Meetings

State Water Board staff is hosting two public scoping meetings for their proposed amendments. The first meeting will be held on January 28, 2015 in Sacramento at the CalEPA building. The second scoping meeting will be held in Costa Mesa at the Southern California Coastal Water Research Project facilities on February 10, 2015.

The purpose of these meetings is to seek input from public agencies and members of the public on the range of project actions, alternatives, reasonably foreseeable methods of compliance, significant impacts to be analyzed, cumulative impacts if any, and mitigation measures. The proposed amendments could contain policy statements, water quality objectives and/or implementation provisions. Oral comments received at the public meetings will be considered when State Water Board staff prepares the draft substitute environmental documents. The State Water Board staff must receive written comments by noon on February 20, 2015.

Lahontan Water Board Bacteria Objective

Because the Lahontan Water Board Basin Plan currently contains a fecal coliform standard of 20 colony forming units/ 100 mL geomean for all beneficial uses including REC-1 and municipal drinking water, Lahontan Water Board staff is requesting State Water Board accommodate this Region's desire to convert its more stringent standard to an e. coli equivalent in most areas of the Lahontan Region where this standard is currently being maintained. Lahontan

Water Board staff is planning to attend both scoping meetings.

3. **State Water Board Public Notice for 2012 Integrated Report** – *Carly Nilson*

The State Water Board provided a notice for public comment for the adoption of the 2012 Integrated Report on December 31, 2014. The Integrated Report for adoption consists of the Integrated Reports from Region 1, Region 6, and Region 7. The Lahontan Water Board adopted its Integrated Report last year.

The State Water Board has the discretion to make changes to the Regional Boards' Integrated Reports and, for Region 6, have included the addition of nine new listings. The proposed additions include: (1) Hidden Valley Creek – phosphorus; (2) Tahoe Keys Sailing Lagoon – pH; (3) Carson River, East Fork – boron; (4) Carson River, East Fork – phosphorus; (5) Carson River, East Fork – sulfates; (6) Dressler ditch – turbidity; (7) West Walker River – boron; (8) West Walker River – chloride; and (9) Twin Lakes, Upper – mercury.

The Lahontan Water Board did not support listing these water body pollutant combinations because the limited data collected at these sites did not adequately represent annual variability. Staff plan on submitting a comment letter in regards to these additional listings for the State Water Board to consider. The adoption hearing is March 3, 2015 at the CalEPA building in Sacramento.

NORTH

4. **Summary of USFS Lake Tahoe Basin Management Unit 2014 Field Season Forest Health and Fuel Reduction Projects** – *Jim Carolan*

The U.S. Forest Service Lake Tahoe Basin Management Unit (LTBMU) had an active and successful 2014 field season. Staff from both the Lahontan Water Board and the LTBMU worked together to ensure that all projects included adequate water quality protection measures and that permit requirements were addressed. The following is a brief update on the status of the LTBMU's two major forest health and fuel reduction projects:

South Shore Fuel Reduction and Healthy Forest Restoration – Approximately 666 acres were treated during the 2014 field season; the treated acres are near Fallen Leaf Lake/Gardner Mountain, North Upper Truckee Road, Pope Beach Area, Sawmill Pond Area, South Tahoe High School, South Upper Truckee/Highway 89, Spring Creek Summer Tract, and Trout Creek near Pioneer Trail. Approximately 251 acres were treated using low ground pressure (less than 13 psi) cut-to-length mechanical equipment. Hand crews and conventional heavy equipment (i.e. mastication) were used to treat the remaining 415 acres. To date, the LTBMU estimates that approximately 30% of the hand thin and mechanical treatments to be conducted as part of this project have been completed.

Carnelian Fuels Reduction and Healthy Forest Restoration– Approximately 518 acres were treated during the 2014 field season; the treated acres are near Brockway Summit, Highway 267, and Carnelian Bay. Approximately 135 acres were treated using low ground pressure (less than 13 psi) cut-to-length mechanical equipment. Hand crews and conventional heavy equipment (i.e. mastication) were used to treat the remaining 383 acres.

Slash piles created during fuels thinning on 279 acres treated in prior years have been burned during the late fall and early winter of 2014.

LTBMU staff is also coordinating with Lahontan Water Board staff on the annual operations plan for the 2015 field season to conduct additional cut-to-length and hand crew treatments.

SOUTH

5. **City of Barstow Compliance with Enforcement Orders** – *Ghasem Pour-ghasemi*

The City of Barstow (City) is continuing to upgrade its wastewater treatment facility and percolation ponds. The Phase I improvement was approved by the City at a cost of $8.1 million, of which $2.8 million is from federal grants. So far, the City has spent $7.6 million to complete rebuilding and modification of both aeration basins and all four secondary clarifiers as well as rehabilitation of ponds 1, 2, and 3 to improve percolation. Work on rehabilitation of ponds 4 and 5 is in progress. Phase I construction will be completed in May 2015. Phase II improvement will start after that. Phase II will address additional improvements to wastewater treatment and unspecific elements are undetermined. At this time, one aeration basin, one primary clarifier and three secondary clarifiers are in use. The remainder of the plant is idle due to lack of sufficient wastewater inflow. The average total nitrogen in the effluent for the last 12 months is 7.38 mg/L as nitrogen N. This demonstrates the improvements are achieving lower total effluent nitrogen (In 2004 total nitrogen was 34 mg/L).

On July 2, 2013, the Water Board issued a Cleanup and Abatement Order (CAO) No. R6V-2013-0045 requiring the City to design and construct a network operation to capture and treat groundwater nitrate downgradient of the northern irrigation field in the Soapmine Road neighborhood. Amended CAO No. R6V-2013-0045A1 was issued on July 10, 2013 to extend the required deadlines for the groundwater extraction date by an additional 40 days. The starting date for nitrate contaminated groundwater extraction and treatment was November 10, 2014.

However, quarterly groundwater monitoring data indicate the presence of perchlorate in some of the monitoring wells along the Soapmine Road neighborhood. Perchlorate is migrating from an orphan disposal site a few miles upgradient to the Soapmine Road area. The Water Board and City staff are working together to develop a plan that can address this comingled nitrate and perchlorate plume. To accomplish this, the City considered modifying and enlarging its proposed extracted groundwater nitrate treatment system design. The City presented the new treatment plan in early September. The City is currently seeking funds to apply to the problem and intends to apply for Cleanup and Abatement Account by early February. Due to perchlorate comingling with the nitrate plume, I agreed to extend the startup of the groundwater from November 10, 2014 to November 10, 2015.

The City continues to conduct residential well sampling of 41 drinking water wells in the Soapmine Road area, as required by the CAO. In the fourth quarter of 2014, the City sampled 35 residential wells. Only one residential well exceeded the maximum contaminant level (MCL) for nitrate as nitrogen N of 10 mg/L and a total of eight private wells showed nitrate-as N

concentrations exceeding 5 mg/L. The nitrate concentration trend is generally trending down over time. Currently, the City is supplying 33 residences with uninterrupted replacement water service (bottled water) where nitrate has been detected at concentrations at or exceeding 5 mg/L nitrate-as N at any time in the past.

6. **Barstow Perchlorate Site Investigation Status Update** – *Bill Muir*

Water Board staff recently conducted groundwater sampling in the Barstow area to monitor the movement of perchlorate within the Mojave River aquifer east of the Barstow city limits. Sampling was done in combination with sampling by the City of Barstow for its nitrate investigation. A total of 8 private wells and 12 municipal monitoring wells were sampled and analyzed for perchlorate and general minerals in November 2014. Concentrations of perchlorate ranged from non-detectable to 1,800 µg/L. The two highest concentrations continue to be detected in private wells located immediately downgradient of the source area. Wells southeast of Interstate 15 show increasing perchlorate concentrations indicating that the perchlorate plume continues to migrate southeast within the Mojave River aquifer.

Residents of the affected community partnered with the Mojave Water Agency to submit a grant application to the State Water Resources Control Board, Division of Drinking Water requesting grant funds to form an entity that would evaluate long-term solutions for providing a safe source of drinking water to the community. The Entity Development Grant was awarded in late 2014. With the award of the Entity Development Grant, a permanent solution will be identified and a source of safe drinking water can eventually be provided to the residents of northeast Barstow. Water Board staff are working on an additional grant request to continue replacement water to two residents until the Entity Development Grant is implemented.

7. **Land Use Control Violation at Site OT071, Former George Air Force Base, Victorville, San Bernardino County** – *Todd Battey*

Water Board staff recently observed a land use control (LUC) violation at the former housing area of George Air Force Base (GAFB) Site OT071, which contains known pesticide contamination that has not yet been delineated in shallow soil. The Air Force transferred the former housing area to the City of Victorville (City) in 2007 with land use restrictions in the deed, which included the requirement to have a Health and Safety Plan (HASP) for any intrusive work at the site. In October of 2014, laborers hired by the City were observed drilling holes for the construction of a fence at the former housing area without a HASP and without personal protective equipment. This violation of an existing LUC resulted in an unknown risk to site workers and calls into question the ability of the Air Force to enforce deed restrictions, which are being proposed as a key component of final remedies at other GAFB sites and other bases.

Another concern related to pesticide soil contamination is the potential presence of dieldrin in soils at two schools located adjacent to the former housing area, including one school that is still operating and serves grades 7-12. These schools were used during the same time period as the housing units and similar procedures may have been followed, including the possible application of pesticides for termite

control. The soils at these schools have not been tested for dieldrin.

Based on the observed LUC violation at the former housing area and the concern related to the adjacent schools, Water Board staff wrote a letter to the Air Force requesting additional information. The letter requested the following information from the Air Force by February 2, 2015:

- Summarize the current process being followed to ensure the City implements the land use controls required in the deed for Site OT071,

- Describe the measures that will be taken by the Air Force to address the violation of the LUC's by the City; and,

- Summarize any soil characterization data collected at the two schools and provide any associated evaluation of human health risk.

Additionally, the letter requested a report to explain how existing land use restrictions at the former Air Force base are being implemented and their effectiveness by March 9, 2015.

The Victorville Daily Press published an article on December 25, 2014 entitled "Lahontan: SCLA project unsafe, Air Force probing whether protocols were violated at former George AFB." The Air Force has acknowledged receipt of the letter and has stated it will be providing a response.

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ENCLOSURE 3

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Summary of
No Further Action Required Letters Issued
December 16, 2014 - January 15, 2015
February 2015 EO Report

State of California

Lahontan Regional Water Quality Control Board

The Executive Officer finds the release of petroleum products at the following sites poses a low threat to human health, safety, and the environment. Therefore, these cases were closed in accordance with the Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closure (Resolution 2012-016). The Policy recognizes contaminant mass often remains after the investment of reasonable remedial effort and this mass may be difficult to remove regardless of the level of additional effort and resources invested. The establishment of the Policy is an effort to maximize the benefits to the people of the State of California through the judicious application of available resources.

Date Closure Issued	Site Name	Site Address	Case Number	Additional Information
January 12, 2015	Jacobs Oil Company, Inc.	560 West Avenue J, Lancaster Los Angelese County	6B1920019T	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000006229

Additional links:

General Policy information: http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml#policy081712

Copy of Policy: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

Implementation Plan http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/110612_6_final_ltcp%20imp%20plan.pdf

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ENCLOSURE 4

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EO's Monthly Report
December 16, 2014 - January 15, 2015
Unauthorized Waste Discharges*

COUNTY: LOS ANGELES

Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
City of Lancaster/City of Lancaster CS	45059 Harlas Ave., Lancaster	South	Yes	12/30/2014	180 gallons	Sewer main blockage resulted in 180-gallon raw sewage discharge to street and gutter.	Rags/debris created a blockage within the sewer main, causing discharge from a manhole. No surface waters affected.	Blockage cleared, 180 gallons recovered, and affected area disinfected.
City of Lancaster/City of Lancaster CS	45310 Sontera Avenue, Lancaster	South	Yes	1/9/2015	6,210 gallons	Sewer main blockage resulted in 6,210-gallon raw sewage discharge to street and storm wate basin.	Vandalism created a blockage within the sewer main causing discharge from a manhole. No surface waters affected.	Blockage cleared, 1,750 gallons recovered, and affected area disinfected.

*All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

EO's Monthly Report
December 16, 2014 - January 15, 2015
Unauthorized Waste Discharges*

COUNTY: NEVADA

Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Truckee Sanitation District/Truckee Sanitation District CS	14683 Northwoods Blvd., Truckee	North	Yes	11/27/2014 - 12/29/2014	2,500 gallons	Service lateral blockage resulted in 2,500-gallon raw sewage discharge to land, street, and gutter.	Damaged service lateral for two homes intermittently occuppied causing periodic discharge from cleanout. No surface waters affected.	Service lateral repaired, and affected area disinfected.

COUNTY: SAN BERNARDINO

Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Molycorp Minerals LLC/Onsite Evaporation Ponds	Adjacent to remediation extraction system disposal facilities.	South	Yes	12/18/2014	1,800 gallons	Failed pipeline vent resulted in 1,800-gallon contaminated groundwater discharge to land.		Discharge contained and failed pipeline vent repaired.
Molycorp Minerals LLC/Onsite Evaporation Ponds	Adjacent to remediation extraction system disposal facilities.	South	Yes	12/19/2014	2,000 gallons	Failed flange resulted in 37,000-gallon mining process wastewater (brine, pH 2-4) to secondary containment, from which 2,000 gallons discharged to land.		Discharge contained, contaminated soils removed for disposal, and failed flange repaired.

*All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

EO's Monthly Report
December 16, 2014 - January 15, 2015
Unauthorized Waste Discharges*

COUNTY: SAN BERNARDINO

Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Lake Arrowhead Community Service District/Lake Arrowhead CSD CS	29000 North Shore Road, Lake Arrowhead	South	Yes	1/7/2015	200 gallons	Sewer main blockage resulted in 200-gallon raw sewage discharge to road and adjacent ground.	Root intrusion caused discharge from a manhole to road and adjacent ground. No surface waters affected.	Blockage removed, 200 gallons recovered, and affected area disinfected.
Lake Arrowhead Community Service District/Lake Arrowhead CSD CS	235 Golf Course Road, Lake Arrowhead	South	Yes	1/12/2015	600 gallons	Sewer main blockage resulted in 600-gallon raw sewage discharge to road and creek.	Root intrusion caused discharge from a manhole to road and subsequently to Grass Valley Creek.	Blockage removed, 400 gallons recovered, and affected area disinfected.

*All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

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ENCLOSURE 5

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Status of Actions for PG&E Hinkley Chromium Contamination
January 2015

Enforcement

Supplemental Environmental Project (SEP): The ACL settlement adopted by the Board on March 14, 2012 requires PG&E to spend at least $1.8 million to update the drinking water system at the Hinkley School. PG&E is finishing upgrades of new equipment at the school. In early 2015, PG&E will train school district personnel to operate the upgraded water system.

Proposed Cleanup and Abatement Order: On January 21, 2015, Water Board released for public comment a proposed Cleanup and Abatement Order. This CAO directs PG&E to continue and improve cleanup actions to remediate chromium-contaminated groundwater; define the chromium plume where it remains incompletely defined; sets plume capture requirements; and sets deadlines to meet interim cleanup targets. A new monitoring and reporting program for monitoring wells and domestic wells is included.

Water Board staff will hold a public meeting at the Hinkley Senior Center on February 25, 2015 from 6 to 8 pm to discuss the proposed CAO. Comments may be submitted electronically to the following email address: RB6enfproceed@waterboards.ca.gov.

If you do not have access to the Internet, please submit hard copy comments to the following address:

Attn: Sue Genera, Executive Assistant
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Each email or hard copy submittal must have in the subject line, "Pacific Gas and Electric Company CAO Hearing."

Investigative and Reporting Orders

1. **Chromium Plume Boundary**: The 3rd quarter 2014 chromium plume map is posted on the Water Board website at: www.waterboards.ca.gov/lahontan, on the "PG&E Hinkley Chromium Cleanup" page, at the bottom of page. The 4th quarter 2014 plume map is due at the end of January.

2. **Chromium Detections in the West:** PG&E is continuing to extract groundwater from a well in the area west of the freshwater injection system and disposing of it to land at the former Heifer Ranch or used for dust control on PG&E projects. Extracted water exceeding 3.1 ppb Cr6 or 3.2 ppb CrT must be treated, such as with ion exchange, prior to disposal to land or used as dust control.

3. **Chromium Plume Containment:** On December 19, 2014, the Water Board accepted PG&E's workplan proposing to conduct hydraulic testing activities in the north-area of the southern chromium plume. The purpose of the testing is to evaluate an alternate capture zone configuration south of the Desert View Dairy for the chromium plume. PG&E is required to implement temporary adjustments to the groundwater monitoring and reporting program to verify the chromium plume is contained during the testing period and does not migrate. Results of the hydraulic testing activities should be submitted by mid-2015.

4. **IRZ Well Replacement, Expansion, and Byproducts:** PG&E has completed the replacement of injection wells to improve ethanol delivery to the subsurface and Cr6 conversion to trivalent chromium or Cr3 by IRZ treatment. PG&E also added new wells at three locations to improve treatment in other areas of the chromium plume between the compressor station and Highway 58. These expanded treatment areas will be operational in first quarter 2015 along with startup of a new agricultural treatment unit (ATU) field, called Community East, at the intersection of Community Boulevard and Summerset Road. As required by the Water Board, PG&E continues to test for byproducts in groundwater. Data shows the manganese plume has increased slightly in width during 2014 but not in length, indicating there is still no threat to nearby domestic wells. No arsenic byproduct was detected in monitoring wells in the IRZ project area during fourth quarter 2014.

5. **Bioreactor Pilot Test:** The Water Board, on December 5, 2014, issued a Notice of Applicability allowing PG&E to conduct a bioreactor pilot test in the Central Area IRZ. The pilot test, to be conducted during 2015 in the area of Frontier Road, will consist of two above-ground vessels (storage containers). Chromium contaminated groundwater will be pumped into the first vessel where acetic acid (vinegar) and phosphoric acid will be added to convert Cr6 to Cr3. Filters in the second vessel will remove left over solid chromium, biomass, and byproducts, such as iron and manganese. Treated water will be re-injected to groundwater in the IRZ area. Pilot test results are expected in 2016.

6. **Lower Aquifer Corrective Actions:** On December 22, 2014, the Water Board conditionally accepted PG&E's plan to improve chromium remediation in the lower aquifer by installing a new extraction well (EX-37). Greater than background chromium concentrations have been in the lower aquifer east of Mountain View Road and south of the railroad tracks since 2009. PG&E's plan states that groundwater pumped from EX-37 will be piped either to one of the ATU fields or re-injected to the groundwater plume in the South Central Reinjection Area (SCRIA). If 20% reductions in chromium concentrations are not seen in the lower aquifer by the end of 2015, PG&E must submit a supplemental remediation strategy to the Water Board.

Status of Revised Chromium Background Study

Dr. Izbicki of the US Geological Survey is leading a revised background study. The new contract for the background study received final approvals from the State Water Resources Control Board on January 8, 2015. US Geological Survey staff anticipated sampling to begin in March 2015.

ENCLOSURE 6

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ENVIRONMENTAL JUSTICE PROGRAM IMPLEMENTATION

JANUARY 2015

Report to the Lahontan Regional Water Quality Control Board
Patty Z. Kouyoumdjian
Executive Officer

CALIFORNIA
Water Boards
LAHONTAN REGION

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
Matthew Rodriguez, Secretary
STATE WATER RESOURCES CONTROL BOARD
Tom Howard, Executive Director

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN REGION
Amy Horne, PhD, Chair
Kimberly Cox, Vice-Chair
Keith Dyas, Member
Don Jardine, Member
Peter C. Pumphrey, Member
Eric Sandel, Member

Patty Z. Kouyoumdjian, Executive Officer
2501 Lake Tahoe Blvd., South Lake Tahoe, CA 96150
Internet: http://www.waterboards.ca.gov/lahontan/

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Appendices

Appendix 1: Environmental Justice History
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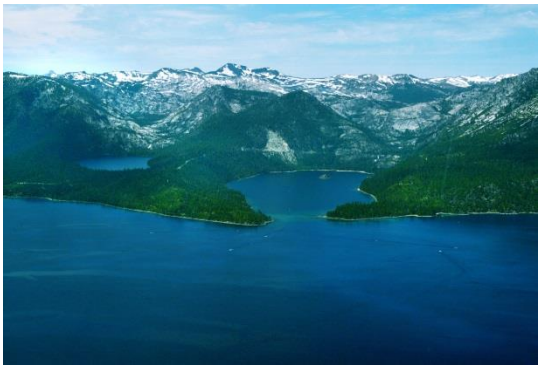
EXECUTIVE SUMMARY

The Lahontan Regional Water Quality Control Board (Lahontan Water Board) reviewed how environmental justice (EJ) is conducted in the region and examined new ways to improve our efforts to benefit the disadvantaged communities in our region. The challenges faced by disadvantaged communities (DACs) in the Lahontan region are unique and often different than other DACs in more urban regions. This report provides an assessment of existing efforts to help DACs and catalogs EJ concerns. In addition, the report includes recommendations to enhance DACs participation in the regulatory process, expand access to funding and technical assistance, and improve water quality and drinking water.

> Environmental justice "means the fair treatment of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." (Gov. Code § 65040.12)

At the Lahontan Water Board's June 19, 2014 meeting in Bishop, California, an overview of environmental justice was provided by State and Lahontan Water Board staff that included presentations by two Integrated Regional Water Management Program (IRWMP) groups on their efforts to evaluate the need of and provide assistance to small, disadvantaged communities. This report is an outgrowth of the discussions at that meeting, with additional detail provided on how the Lahontan Water Board is currently implementing environmental justice and the needs for more complete implementation to ensure *the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies*.

ENVIRONMENTAL JUSTICE IN THE LAHONTAN REGION



The Lahontan Region starts at the Oregon border and runs over 600 miles down the eastern side of state (Figure 1). The Region covers over 33,000 square miles (one-fifth of California), with substantial topographical variability, ranging from snow covered mountains to desert environments.

Most of the inhabitants of the Region are located in rural communities or in remote locations. The Region includes many federally recognized and unrecognized Native American tribes, and a large Latino population. The Region has some larger communities in the northern and central sections, such as Susanville, Truckee, and South

Lake Tahoe. The southern part of the Region has more urban areas, including Lancaster, Palmdale, Victorville, and Barstow. The Region's largest city, Lancaster, is the 30th largest city in the state. The southern part of the region also has many rural and remote communities.

There are about 50 economically DACs and 10 tribes in the Lahontan Region and even more disadvantaged people living in remote and isolated locations. The state defines an economically disadvantaged community as one having a median household income (MHI) of less than 80 percent of the California MHI. A DAC would therefore have an MHI of less than $48,706 (based on the U.S. Census Bureau's American Community Survey for the five-year period 2006-2010).

The DACs and tribes in the region most often depend upon groundwater for their sole source of drinking water. Some of these groundwater aquifers have high quality waters and others have contamination from nitrates, chromium 6, and naturally occurring pollutants such as arsenic, fluoride and radioactive elements. These rural DACs often do not qualify for financial or technical assistance from existing state EJ programs because they are too small, lack technical resources to participate or do not have cumulative environmental impacts from other pollutants, such as air pollution. Some of the urban communities in the south qualify more easlily under the existing programs or have cumulative environmental impacts. The DACs and tribes in the region also experience significant adverse impacts from climate change, such as reduced snowpack, more intense and frequent wildfires, overdrafted groundwater basins, and increased flood risks.

Stock photo.

This report makes several recommendations to improve the region's environmental justice strategy. Specifically the key recommendations include:

- Identify a Lahontan Water Board EJ liaison, add material to the Lahontan website regarding EJ, train all Lahontan Water Board staff in EJ, and seek additional Lahontan staff resources for EJ activities.
- Change the definition of DACs in code, policies, and procedures to provide more flexibility to assist communities in need.
- Dedicate more funding for DACs and for agencies to assist DACs, including Lahontan Water Board and other agencies whose workloads are increasing as a result of new laws, and Proposition 1 (Water Bond.)

- Remove impediments to DAC assistance in Department of Water Resources (DWR) Integrated Regional Water Management Programs by broadening the types of projects that may receive funding.
- Change CalEnviroScreen to include more environmental stressors and DAC attributes.
- Encourage use of Air Resources Board Cap and Trade (AB 32) funding for DACs affected by or that will likely be affected by climate change.

WATER QUALITY COORDINATING COMMITTEE

The October 23-25, 2013 meeting of the Water Quality Coordinating Committee (WQCC) of the State and Regional Water Boards included an EJ discussion to improve what the Water Boards were doing to address DACs and tribal concerns. At the WQCC meeting, existing regulatory tools were identified that could help the Water Boards work on environmental justice issues. Input was received from stakeholders on their perspectives and concerns regarding water and other environmental issues and major efforts underway, including drinking water quality and clean water, access to financial assistance, operating costs, cumulative impacts, etc. The Regional Boards were encouraged to examine activities in their individual regions to improve EJ outreach and participation. The WQCC meeting led to development of a public workshop item for the June 2014 Lahontan Water Board Meeting.

PUBLIC WORKSHOP

The Lahontan Water Board hosted a public workshop on June 19, 2014 in Bishop, California and was given a series of presentations on environmental justice efforts presently underway. The workshop helped raise the visibility and identify the importance of EJ as a policy to ensure fair treatment of DACs and tribes in our everyday work. Board members and staff learned more about EJ challenges and limited resources within the Lahontan Region. Several ideas were presented to increase DAC and tribal participation in the regulatory process, expand access to funding and technical assistance, and improve water quality and drinking water. Stakeholders and community members were informed of existing State and Water Board policies as a result of the meeting. Some of the specific issues discussed are summarized below.

In addition, the Lahontan Water Board members and staff participated in the Inyo-Mono Disadvantaged Community & Tribal Water Conference held on June 18, 2014 at the Tri-County Fairgrounds in Bishop and later joined a tour of the Big Pine Paiute water system in Lone Pine, California.

State Perspective – At the workshop, Gita Kapahi, Director of the Office of Public Participation at the State Water Board, gave a presentation on current State and Regional Water Board tools and the current actions of the Water Boards with regard to EJ. She provided the federal and state definitions of EJ and DACs, discussed federal and state guidance for implementing EJ, highlighted the Water Boards' progress in implementing EJ, and identified issues and challenges. State Water Board

implementation of EJ includes its Small Community Wastewater Grant Program, which in fiscal year 2011-2012 disbursed over $300,000 in loans and grants, including more than $70,000 in grants and principal forgiveness. The State Water Board has also been actively researching and developing options for addressing groundwater drinking water sources that have been impacted by nitrates. DACs are more often adversely affected by contaminated groundwater, and they have less financial and technical ability to provide safe drinking water to their communities. Ms. Kapahi highlighted some of the EJ communities that the State and Regional Water Boards have worked with, including the Hinkley community in the Lahontan Region. Opportunities for Tribal engagement were identified, including through the CalEPA Tribal Advisory Committee, the USEPA Regional Tribal Operations Committee, and through the State Water Board's tribal email lists of tribal chairs and environmental directors. Ms. Kapahi identified some EJ/DAC challenges, including:

Public participation

- Ability to attend meetings,
- Access information, participate in their primary language,
- Access to a Regional Board EJ contact person,
- Lack of representation on decision-making bodies.

Capacity building

- Need technical assistance with preparation of grant proposals,
- Need technical assistance to learn how to maintain community and private water and wastewater systems

Administrative

- DAC/EJ definitions can be limiting,
- Overly technical language.

Significant funding issues

- Isolated locations, often with less population base,
- Access to safe drinking water,
- Cumulative impacts,
- Delayed reimbursement process.

Technical, managerial, financial

- Training, including for operation and maintenance of drinking water and wastewater systems,
- Lack of effective outreach.

Environmental justice tools and resources identified include:

- CalEnviroScreen, which identifies pollution burden coupled with income,
- State Water Board's translation contract,
- CalEPA Tribal Policy,
- CalEPA EJ Strategy,
- Citizen's Guide to Working with the California Water Boards,

- AB 685, Human Right to Water.

Ms. Kapahi idenitified next steps that the Water Board's should consider:

- Provide education and training for Water Board staff,
- Strengthen overall coordination with EJ and Tribal communities, continue to build relationships,
- Continue cross-media coordination and accountability in partnership with CalEPA sister BDOs and other agencies,
- Consider expanding our EJ and public participation staffing,
- Consider preparing an EJ work or implementation plan,
- Revisit EJ at future Board and management meetings.

Lahontan Perspective – Chuck Curtis, Division Manager with the Lahontan Water Board provided an overview of the Lahontan Region's EJ activities. The Lahontan Water Board and its staff have been implementing many environmental justice concepts consistent with statutes, regulations and policies through its processes and procedures for conducting its meetings, adopting regulations, approving discharge permits, providing technical assistance to dischargers and the public, enforcing water quality regulations, and providing access to documents, information and staff.

Mr. Curtis identified the ten federally-recognized tribes and some of the economically disadvantaged cities and communities in the Region (see Tables 1, 2 and 3). He discussed the unique challenges of small and rural communities, including the higher cost for clean water and (in some cases) wastewater treatment; the large distance to population centers and infrastructure, with associated higher costs for local goods and services (if they are available at all) and greater travel to access those things unavailable locally; and the limited capacity to compete for funding.

A mapping tool Water Board staff and others can use to identify communities most affected by environmental pollution and other stressors is CalEnviroScreen. With information from CalEnviroScreen, the Water Board may assist in directing grant funding and environmental restoration to those affected areas. However, the tool primarily considers air pollution and currently does not consider most groundwater pollution, including polluted groundwater that is used by individual domestic well owners. As a result, the tool does not identify many areas that have unsafe drinking water.

Mr. Curtis discussed how the Water Board currently implements an environmental justice program. First, the Board's mission is to preserve, enhance, and restore the quality of the Lahontan Region's water resources for the benefit of present and future generations. Protecting and restoring water quality benefits all people of the Region, including disadvantaged communities and visitors that use our waters.

The Water Board conducts its meetings in the areas most affected by its decisions to ease and encourage participation by community members, with items affecting the south typically heard in southern communities and affecting the north in northern communities. Agenda items with potential public interest are held in the evenings to accommodate

working families. The agenda announcements of all our meetings are now translated to Spanish, and both versions are available on our Internet web site (http://www.waterboards.ca.gov/lahontan/). All the Water Board meeting materials and most information on conducting business with the Water Board is also available on the web. Where Board items are of interest to a significant number of Spanish speakers, we have provided translation services at board meetings. By having offices both in the north and south of the Region, in South Lake Tahoe and Victorville, access to staff of the Water Board is made easier, and we have an identified bilingual staff member in our Victorville office to assist Spanish speakers.

The Water Board and its staff also implement environmental justice through support of Integrated Regional Water Management (IRWM) groups, participation in community advisory groups, support of Tribal water quality planning and restoration efforts, support of watershed groups and environmental restoration, and through fair implementation of our enforcement program. Highest among our enforcement and water quality implementation priorities are to ensure that residents have safe drinking water. Many households in our small communities use individual domestic water wells that are vulnerable to pollution from waste discharges; protection of groundwater that supplies those wells is a primary function of the Water Board. In cases where pollution has affected domestic supplies, the Water Board requires responsible parties to provide replacement water. The Water Board also supports Supplemental Environmental Projects (SEPs), which result from enforcement actions, that benefit areas most affected by environmental stressors. Currently, the State Water Board's SEP Policy limits SEPs to a maximum of 50 percent of the adopted liability.

Water Board members and staff should consider environmental justice in all aspects of their work. Fair treatment is not treating everyone equally, but treating everyone justly. This requires consideration of how each aspect of the Water Board's work and actions may be known and understood by the diverse population of the Region, that our actions are honorable and fair, and that we provide all affected persons opportunities to participate in the planning and decision making processes of the Board.

Inyo-Mono IRWMP Project - Dr. Holly Alpert presented the results of the Inyo-Mono IRWMP tribal and disadvantaged community project. This included showing the IRWMP group's film, "Living in the Rain Shadow, Rural Communities and the Inyo-Mono Integrated Regional Water Management Program." Among the challenges identified by the Inyo-Mono IRWMP is the manner in which disadvantaged communities are identified. The Inyo-Mono IRWMP *Mid-Grant Synthesis* provides the following discussion:

> "*In some cases, the Department of Water Resources (DWR) lists a community as a DAC on its mapping tool but also shows that the population and/or MHI [median household income] data are not available for that community (see Pearsonville or Valley Wells CDP [Census Designated Place] as examples [Table 2] …). In other cases, DWR shows a community to be a DAC when the known reality is different (meaning that it is not a DAC; Aspen Springs and McGee Creek are two examples). In addition, some communities that are most likely DACs (such as Big*

Pine) have MHIs that are too high to be considered a DAC by the legislative definition [80 percent of the statewide MHI]. Finally, not all communities, especially in rural areas, show up in Census or ACS [American Community Survey] estimates, or communities may be lumped together into one Census Designated Place (e.g., Topaz, Coleville, and Walker have been lumped as Antelope Valley in the past). These difficulties in finding Census and/or ACS data for every community in the Inyo-Mono region bring into question the efficacy of relying on such data to define DACs."

The Inyo-Mono DAC project also assessed the needs of 17 DAC water systems and found that these small systems had aging infrastructure and needed technical, managerial and financial assistance, including assistance with operation plans, capital improvement plans, water conservation plans, five-year budgets, water meters, and control and data acquisition systems. Training and capacity building was provided to improve the DAC's ability to be successful in seeking funding for their water systems and to appropriately maintain and operate their systems.

Dr. Alpert and Dr. Mark Drew, Inyo-Mono IRWM program director, also had the following recommendations/observations resulting from the DAC project:

1. DAC outreach requires time, persistence, creativity, community-specific knowledge;
2. Utilize unlikely outreach venues;
3. Further research alternative definitions of DAC;
4. Promote DAC water system training, technical assistance, capacity building – from State and local entities;
5. Create different grant proposal and grant administration requirements for DACs;
6. Investigate possibilities for water system consolidation; and
7. Develop realistic and adequate rate structures.

Mojave IRWM Activities – Kirby Brill, General Manager of the Mojave Water Agency/Mojave IRWM, gave a presentation on their efforts to assist DACs with drinking water systems. Mr. Brill discussed the Mojave IRWMP's work with small water system operators. Two of the objectives of the IRWMP group are (1) support and assist disadvantaged communities and (2) obtain financial assistance. In October 2013, a pilot relationship with the California Rural Water Association began to support small water systems and disadvantaged communities with potable water supply problems. As a result of these coordinated efforts, the IRWMP has conducted needs assessments for small water systems in the Mojave IRWMP region, provided workshops, submitted applications to the California Department of Public Health (now the Division of Drinking Water within the State Water Resources Control Board) for financial assistance for the Soapmine Road area of Barstow and the Hinkley area, among others, and conducted training classes. Mr. Brill indicated that small system operators are in significant need of technical, managerial and financial training and assistance.

CALIFORNIA WATER BOND

Proposition 1, the Water Quality, Supply and Infrastructure Implementation Act of 2014 (Assembly Bill 1471), was approved by the voters on November 4, 2014 and replaced a previous measure known as Proposition 43. The Act authorizes the sale of $7.12 billion in general obligation bonds for state water infrastructure projects, such as public water system improvements, surface and groundwater storage, drinking water protection, water recycling and advanced water treatment technology, water supply management and conveyance, wastewater treatment, drought relief, emergency water supplies, and ecosystem and watershed protection and restoration. The measure also reallocates $424 million of unissued bonds authorized under prior years' Propositions 1E, 13, 44, 50, 84, and 204 to be used for the purposes of this Act, resulting in a total of available amount of $7.545 billion.

The Proposition set aside specific amounts to assist disadvantaged communities. Many provisions of Proposition 1 require than a minimum of 10 percent be set aside for projects that help DACs. Also, some programs authorize up to 15 percent of the funds to be used for technical assistance. Eligible applicants for funds include Native American Tribes, mutual water companies, public utilities, non-profit organizations, and public agencies. Proposition 1 includes the funding for programs identified below that apply to the Lahontan Region; considerations for DACs are noted.

- Wastewater and drinking water - $520 million:
  - At least 10 percent to severely disadvantaged communities;
  - Up to 15 percent for technical assistance to DACs;
  - More than 15 percent may be used for planning, including technical assistance, for DACs;
  - Priority given for projects serving multiple communities that include at least one DAC, and the DAC may be served by a private well or other small water system;
  - Initial operation and maintenance costs are fundable for up to two years.
- Ecosystem and watershed protection and restoration - $1.495 billion:
  - At least $25 million to benefit urban DACs;
  - Up to $10 million for planning;
  - $15 million for the California Tahoe Conservancy and $25 million for the Sierra Nevada Conservancy.
- Regional water management - $810 million:
  - $24.5 million for Lahontan Region IRWM projects;
  - At least 10 percent for DACs, economically distressed areas or underrepresented communities;
  - $100 million for urban water conservation.
- Water recycling and advanced water treatment- $725 million:
  - Required 50 percent local cost share may be suspended or reduced for DACs and economically distressed areas.
- Groundwater - $900 million:

- $80 million grants for treatment and remediation of groundwater that is a source of drinking water;
- Required 50 percent local cost share may be suspended or reduced for DACs and economically distressed areas;
- At least 10 percent for severely disadvantaged communities;
- Technical assistance program for small and DACs;
- $100 million to develop and implement groundwater plans and projects.

KEY POLICY ISSUES

The Lahontan Water Board's workshop on EJ and information evaluated in preparation of this report identified a number of policy issues that should be considered in implementation of EJ in the Lahontan Region. These issues include those that may be implemented by the Lahontan Water Board, those specific to the State Water Board or other state agencies, and those where legislative action is required to address. Each is discussed below, followed by needs or implementation suggestions.

1. **Disadvantaged Community Definition**
   Throughout California codes, a disadvantaged or economically disadvantaged community refers to one with a median household income of less than 80 percent of the state's MHI.
   a. A community may be environmentally disadvantaged or unable to acquire safe drinking water, yet have an MHI of 80 percent or greater of the state's MHI. The MHI should not be the only measure available to judge the need for funding.
   b. Most agencies use the U.S. Census Bureau's American Community Survey (ACS) to identify DACs, yet the areas from the ACS do not coincide with the areas eligible for grant funding under the Drinking Water State Revolving Fund (DWSRF) and certain other grant programs. For example, a DWSRF grant for a DAC water district applies when the area of the water district is a DAC, yet the ACS is by census blocks or other areas that don't coincide with water district boundaries. The district would have to conduct a district-specific MHI survey, which is costly and not subject to grant funding.
   c. The ACS estimates contain errors that inappropriately classify some DACs as non-DACs.
   d. CalEnviroScreen does not consider groundwater pollution affecting private water systems and those serving less than 15 connections.

2. **Insufficient funding identified for DACs and to address EJ**
   a. The current DAC programs do not have enough dedicated funding to assist DACs.
   b. Many State programs that interface with DACs are not funded to coordinate with, assist or do business with DACs. For example, there is no specific funding for Regional Board EJ/DAC coordinators. With passage of Proposition 1, additional Regional Board work with DACs will occur, yet there are no staff

dedicated to work with DACs or to work on the increased permitting and project oversight workload that comes with implementing the Water Bond.

c. Climate change may disproportionately affect DACs through flood, fire, and reduced surface water and groundwater availability, yet the Air Resources Board's Cap and Trade program of AB 32 does not direct funding to those communities that are located away from the source of greenhouse gases to help them adapt to climate change.
d. In some cases DACs need micro loans/grants to solve problems, and present funding programs can be difficult to navigate.
e. Although infrastructure can be funded, operations and maintenance costs are very difficult for DACs. The DACs also lack technical skills to maintain or upgrade equipment.

3. Private water systems and water systems with fewer than 15 connections

a. Many DACs have water systems that are not subject to regulation by the state and are not able to receive grant funding from the state.
b. The Lahontan Region has many rural, dispersed communities with private water systems and individual water supply wells. Many of these are in areas that have naturally-occurring pollutants that exceed safe drinking water levels.
c. Small water systems often do not have the technical, managerial and financial, training and tools to sustainably maintain water systems.

4. Capacity of rural, dispersed communities

a. These communities usually do not have non-profit organizations, agencies or entities that provide support for accessing grant funding for water and wastewater needs.
b. These communities often do not have the technical, managerial and financial, training and tools to sustainably maintain water and wastewater systems.

5. Cumulative impacts

a. DACs may suffer more cumulative impacts from pollution and climate change because they often do not have the capacity to address the pollution or adapt to the conditions affected by climate change.
b. Subsistence fishing can be a significant source of pollutant burden on DACs.
c. Impacts to cultural resources used by tribes may not be adequately identified and addressed.

RECOMMENDATIONS

Lahontan Water Board

1. Identify an EJ liaison.
2. Add an EJ contact and EJ links to website.
3. Train staff on EJ.
4. Identify Lahontan staffing needs to coordinate with DACs and tribes.

5. Identify Lahontan staffing needs to facilitate implementation of Proposition 1 for (1) additional permitting for ecosystem and watershed restoration projects, (2) IRWM support, (3) additional permitting for recycling projects, and (4) technical assistance and project oversight for groundwater cleanup projects.
6. Consider adding a subsistence fishing and cultural use beneficial uses to the Basin Plan.
7. Continue to hold Board meetings in the areas most affected by Board decisions.
8. Continue to support IRWM groups in their efforts to assist DACs.
9. Support and approve Supplemental Environmental Projects that benefit DACs.
10. Continue to host community technical and educational sessions and conduct outreach efforts.
11. Continue to provide written materials in Spanish and provide translations at public meetings where needed.

State Water Board (including Division of Drinking Water)

1. Support Regional Board EJ resource needs when implementing Proposition 1.
2. Modify policies and implementation procedures to expand eligible applicants to include DACs and others not currently covered in the Drinking Water State Revolving Fund and the Clean Water State Revolving Fund. For example, change the definition of applicant to include 501(c)(3) entities, to apply for all types of eligible projects. Include simplified proceedures to provide micro loans to fund smaller project elements or planning. This would allow an IRWM group to apply for grants for DACs that are not represented by a publicly owned treatment plant, city, town, district, state agency, or other public body.
3. Support legislation to change definition of DACs in state codes to be more inclusive, including allowing alternative criteria to define a DAC or portions of a community.
4. Provide training to State and Regional Board staff on EJ.
5. Provide training to DACs on technical, managerial, and financial aspects of drinking water and wastewater systems.
6. Continue to provide translation services where needed for Board meetings and other meetings.
7. Change the Supplemental Environmental Project Policy to allow up to 100 percent of assessed liabilities to go to DACs.
8. Consider grants or rebates to individuals or entities to install household (point of use) water treatment systems.

Other State Agencies

<u>OEHHA</u>

Modify CalEnviroScreen to include other stressors, including contaminated groundwater used by individuals or small private water systems, and those areas most affected by climate change (e.g. severe drought conditions.)

DWR

1. Modify grant policies and procedures to extend the reach of IRWM projects to DACs that currently are not identified as DACs, including allowing alternative criteria to define a DAC.
2. Allow funding to IRWM groups for income surveys of communities, water districts and sewer districts in order to determine if they are economically disadvantaged.
3. Allow funding to IRWM groups for DACs and other communities affected or expected to be affected by climate change to build more resiliency and adapt to such change.
4. Provide technical assistance and education to DACs to support their efforts to obtain grant funding.

Air Resources Board

Apply cap and trade funds to DACs and other communities affected or expected to be affected by climate change to build more resiliency and adapt to such change.

Legislature

1. Change definition of DACs in state codes to be more inclusive, including allowing alternative criteria to define a DAC.
2. Provide additional staff resources to State and Regional Water Boards and DWR to support EJ efforts, including for education, outreach and technical assistance to implement the Water Bond.
3. Provide funding for State Water Board and DWR grants to DACs.

CONCLUSION

The Lahontan Water Board is conducting its business consistent with the EJ requirements and policies. However, much more could be done with more resources and training. Changes are also needed in state codes, policies and procedures to provide flexibility for and remove impediments to DAC assistance. A clear message from Board members, stakeholders and IRWMP groups at the June 2014 Lahontan Water Board meeting was the need to support small and disadvantaged communities through:

- Grant assistance for drinking water and wastewater facilities;
- Training of facility operators;
- Development of technical, managerial, and financial capacity at small water and wastewater systems; and
- Assistance for those drinking water systems that are unregulated (less than 15 connections and serving less than 25 people less than 60 days per year), including private individual well owners.

Table 1: Native American Tribes in the Lahontan Region

Tribe	Tribal Affliation	Location of Aboriginal Lands	Status
Antelope Valley Paiute Tribe	Paiute	Inyo, Mono County	Non Federally Recognized
Benton Paiute Reservation (U-Tu Utu Gwaitu Paiute Tribe)	Paiute	Mono County	Federally Recognized
Big Pine Band of Owens Valley	Paiute	Inyo, Mono Counties	Federally Recognized
Bishop Paiute Tribe	Paiute, Shoshone	Inyo, Mono Counties	Federally Recognized
Bridgeport Paiute Indian Colony	Paiute	Mono County	Federally Recognized
Cedarville Rancheria of Northern Paiute Indians	Paiute	Modoc County	Federally Recognized
Chemehuevi Reservation	Chemehuevi	San Bernardino, Riverside Counties	Federally Recognized
Death Valley Timbisha Shoshone Tribe	Shoshone	Death Valley Region	Federally Recognized
Fernandeno Tataviam Band of Mission Indians	Gabrielino, Tataviam, Chumash, Yaqui	Los Angeles County; San Fernando, Santa Clarita and Antelope Valleys	Non Federally Recognized
Fort Bidwell Indian Community of Paiute	Paiute	Modoc County	Federally Recognized
Fort Independence Community of Paiute	Paiute, Shoshone	Imperial, Inyo Counties	Federally Recognized
Honey Lake Maidu	Maidu	Lassen County; Northern Sierra Nevada, Sacramento Valley	Non Federally Recognized
Kern Valley Indian Council	Tubatulabal, Kawaiisu, Koso, Yokuts	Inyo, Kern, San Bernardino Counties	Non Federally Recognized
Kuzadika Indian Community		Mono County	Non Federally Recognized
Kwaaymii Laguna Band of Mission Indians	Kawaiisu	Mohave Desert Region, San Joaquin Valley	Non Federally Recognized
Lone Pine Paiute-Shoshone Reservation	Paiute, Shoshone	Imperial, Inyo Counties	Federally Recognized
Mono Lake Indian Community	Paiute	Mono County; Mono Lake Region	Non Federally Recognized
Serrano Nation of Indians	Serrano	San Bernardino, Riverside Counties	Non Federally Recognized
Susanville Indian Rancheria	Paiute, Maidu, Washoe, Pit River (Achomawi, Atsugewi), Washoe	Lassen, Plumas Counties	Federally Recognized
Tejon Indian Tribe	Yowlumne, Kitanemuk, Tejon	Kern County	Non Federally Recognized
Wadatkuta Band of the Northern Paiute of the Honey Lake Valley	Paiute	Lassen County	Non Federally Recognized
Walker River Paiute Reservation	Paiute	Mono County	Federally Recognized
Washoe Tribe of Nevada and California	Washoe	Alpine, El Dorado, Nevada, Placer, Sierra Counties	Federally Recognized

Note: Tribes with traditional aboriginal lands in the Lahontan Region are included.

Table 2: Disadvantaged Communities of the Inyo-Mono IRWM Planning Region

Community	Population	Annual Median Household Income
Inyo County	***18,434***	***$44,808***
Big Pine Paiute Reservation of the Owens Valley	262	$43,214
Bishop	3,826	$37,005
Bishop Paiute Tribe	1,828	$46,384
Darwin CDP	30	$30,893
Dixon Lane-Meadow Creek CDP	2,660	$48,542
Fort Independence Tribe	81	$30,417
Furnace Creek CDP	64	$27,813
Homewood Canyon CDP	109	$14,706
Independence	551	$47,883
Keeler CDP	27	$44,500
Lone Pine CDP	2,309	$40,176
Lone Pine Paiute-Shoshone Reservation	148	$37,188
Pearsonville CDP	5	Not available[5]
Shoshone CDP	33	$28,750
Tecopa CDP	101	$21,806
Timbisha-Shoshone Reservation	32	$23,063
Valley Wells CDP	Not available	Not available
Wilkerson CDP	563	$44,356
Kern County	***815,693***	***$47,089***
China Lake Acres CDP	1,553	$35,102
Inyokern	1,676	$31,925
Mono County	***13,905***	***$55,087***
Aspen Springs CDP[6]	Not available	Not available
Benton CDP	289	$40,119
Benton Paiute Reservation	75[1]	$9,938[1]
Bridgeport Indian Colony	35[2]	$10,625
McGee Creek CDP	29	Not available
Topaz CDP[7]	Not available	Not available
Walker River Reservation	508	$25,227
Walker CDP[7]	677	$30,682
Woodfords Community of the Washoe Tribe[4]	139	$25,417
San Bernardino County	***2,005,287***	***$55,845***
Searles Valley CDP[3]	2,088	$35,147
Trona CDP	17	Not available

1: From 2009 5-year ACS
2: From 2010 Decennial Census
3: Consists of the communities of Argus, Trona, Pioneer Point, and Searles Valley, CA. For our purposes, we consider only the Searles Valley CDP data, since they encompass Trona.
4: Woodfords Community is the sole branch of the Washoe Tribe located in CA
5: Communities with MHI listed as "Not available" are listed as DACs based on their DAC designation using DWR's DAC mapping tool: http://www.arcgis.com/apps/OnePane/basicviewer/index.html?&extent={%22xmin%22:-15522106.757711068,%22ymin%22:3383875.113067463,%22xmax%22:-11562057.196313709,%22ymax%22:5663533.044643953,%22spatialReference%22:{%22wkid%22:102100}}&appid=c034d1f8f9f34afeb98f20be2a2fb790
6: Aspen Springs is considered a DAC by DWR's mapping tool; anecdotal evidence suggests that Aspen Springs is not a DAC; the community's economic status will be reviewed through the DAC grant.
7: Topaz and Walker (and Coleville) constitute the Antelope Valley, which was its own CDP in 2000 census data.

Table source: *Inyo-Mono IRWM Program Disadvantaged Communities Project, Mid-Grant Outreach Synthesis, February 2013*, Inyo-Mono Integrated Regional Water Management Program.

Table 3: Disadvantaged Communities in the Lahontan Region Identified by the Department of Water Resources

Modoc County:
Fort Bidwell, Lake City, Cedarville, Eagleville

Lassen County:
Spalding Tract, Susanville, Litchfield, Herlong, Doyle

Nevada County:
Floriston

Placer County:
Kings Beach, Carnelian Bay

El Dorado County:
South Lake Tahoe

Alpine County:
Alpine Village (Woodfords/Diamond Valley)

Mono County:
Topaz, Walker, McGee Creek, Aspen Springs (near Tom's Place), Benton

Inyo County:
Dixon Lane-Meadow Creek (Bishop), Bishop, Wilkerson (Keough's), Independence, Lone Pine, Keeler, Darwin, Furnace Creek, Pearsonville, Trona, Homewood Canyon (Trona), Valley Wells (Trona), Shoshone, Tecopa

Kern County:
Inyokern, China Lake Acres (Inyokern), Randsburg, Johannesburg, California City, North Edwards, Boron, Mojave

San Bernardino County:
Searles Valley, Adelanto, Piñon Hills, Hesperia, Lenwood, Barstow, Baker

Los Angeles County:
Lake Los Angeles

(Census places with median household income (MHI) 80 percent or less of the statewide MHI. Source: http://www.water.ca.gov/irwm/grants/resourceslinks.cfm, Map 1)

Figure 1: Map of the Lahontan Region

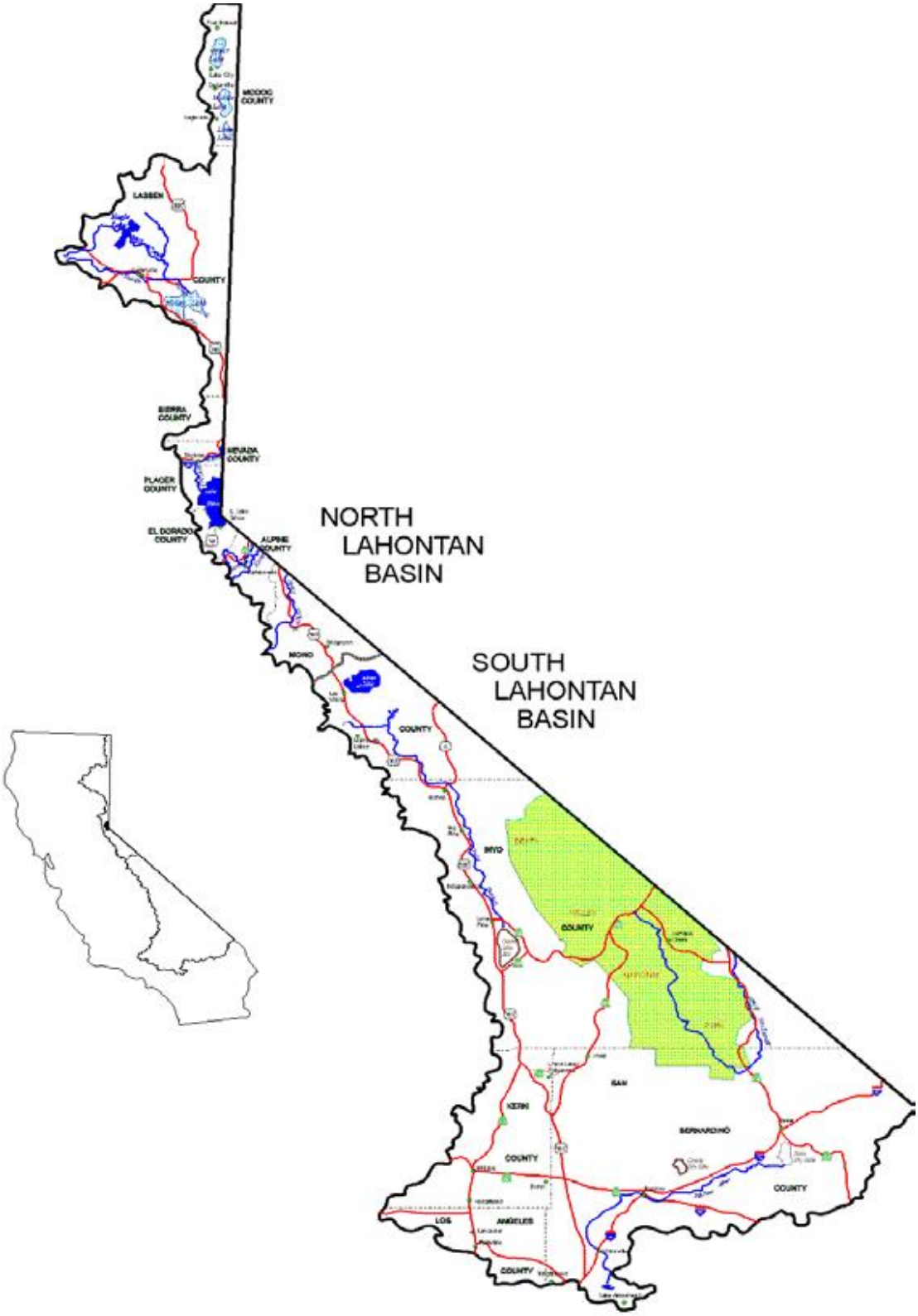
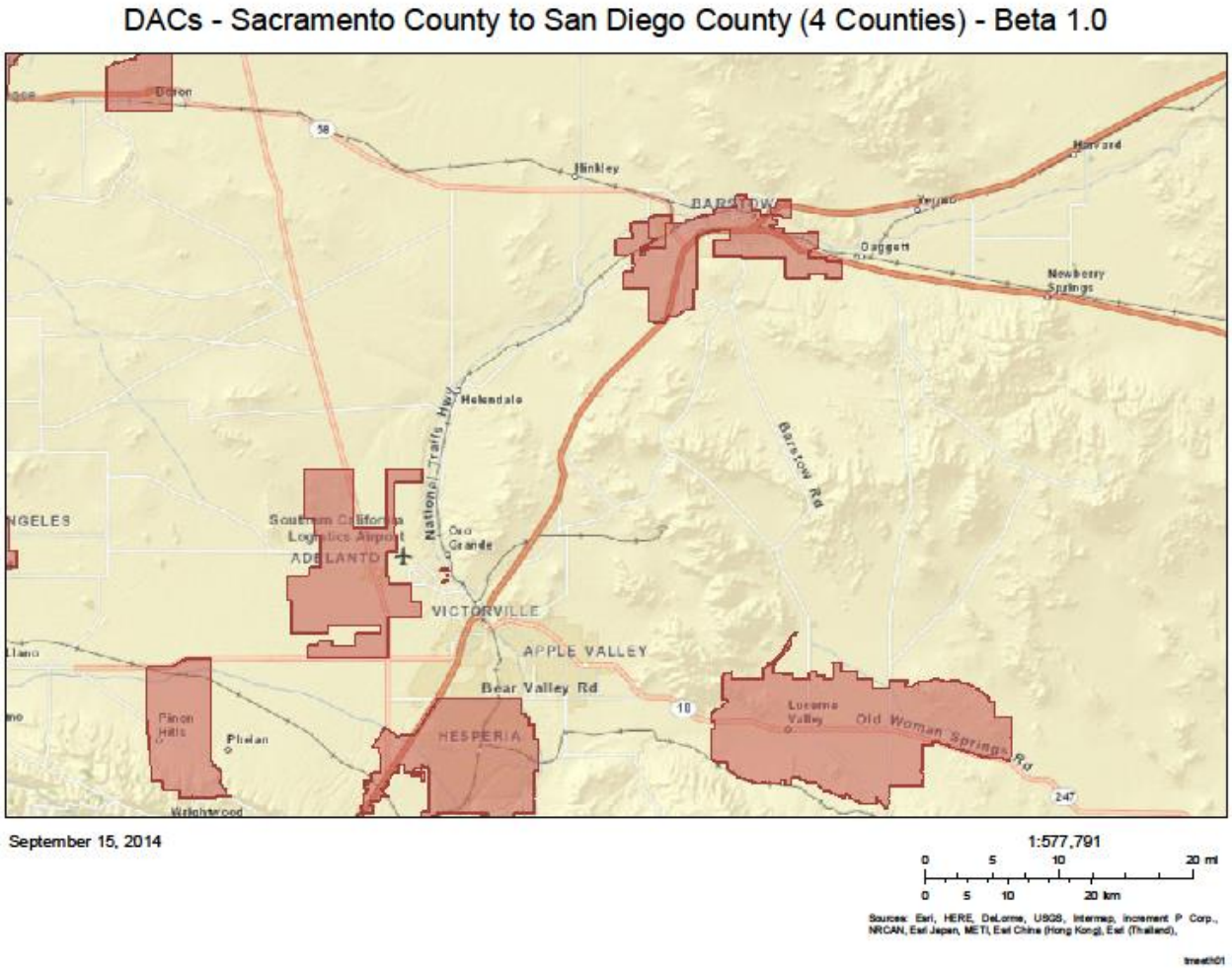


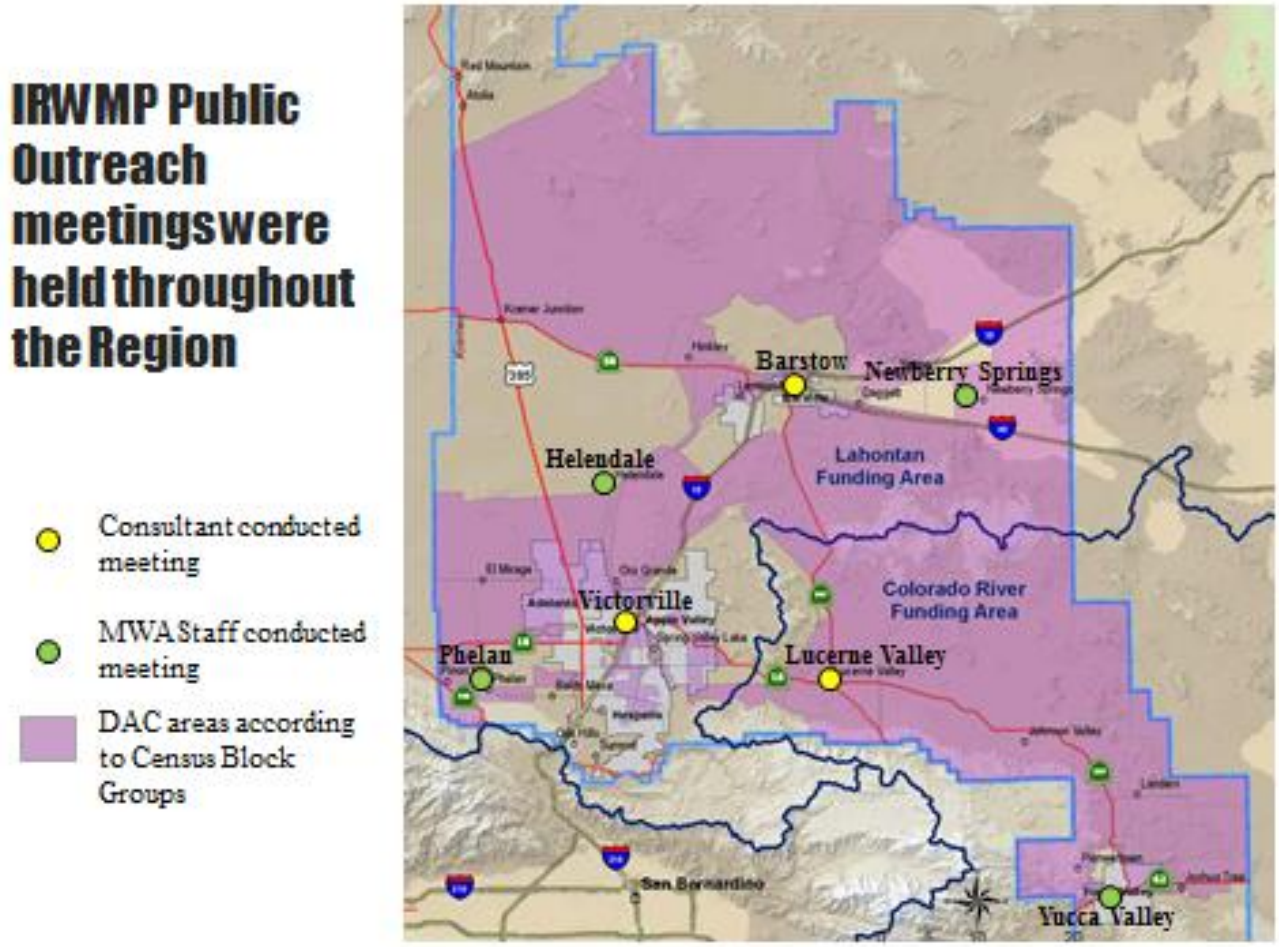
Figure 2: Map of Disadvantaged Census Places, Barstow Area



Note: Hinkley is not identified as a disadvantaged community.

Source: Department of Water Resources.

Figure 3: Mojave IRWMP-Identified Disadvantaged Communities per Census Block Groups

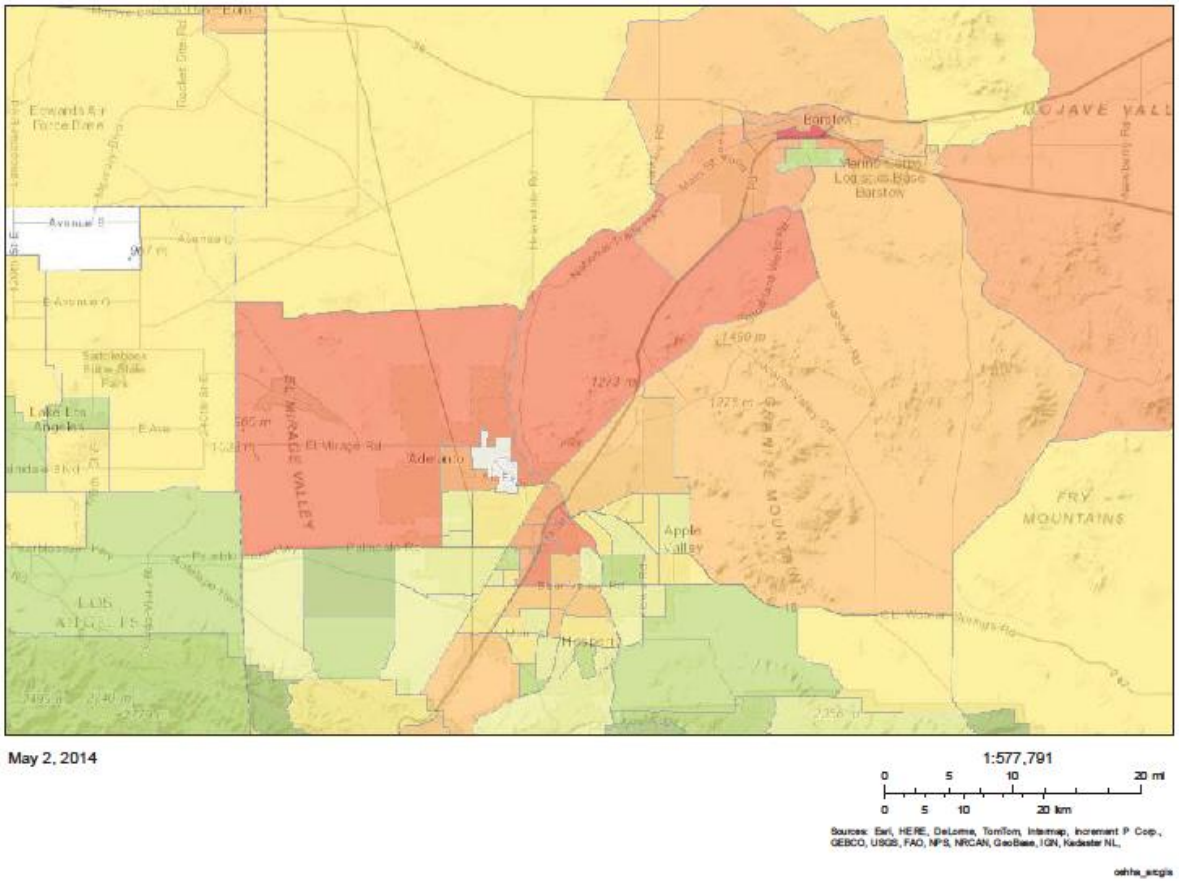


Note: Hinkley is identified as a disadvantaged community.

Slide source: Kirby Brill, Mojave Water Agency and Mojave IRWMP

Figure 4: Office of Human Health Hazard Assessment CalEnviroScreen Score
(combination of pollution burden and population characteristics)

CalEnviroScreen 2.0 (draft) All Results Map



Note: Hinkley is identified in the 61 to 70 percentile of scores, with higher scores having more pollution and/or lower income or other social factors.

Appendix 1

Environmental Justice History

Environmental justice (EJ) is defined in State law as "the fair treatment of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." The California Environmental Protection Agency (CalEPA) environmental justice strategy and the State Water Resources Control Board's (State Water Board) Strategic Plan contain goals that guide the Lahontan Water Board efforts. The Lahontan Water Board implements EJ through its assistance to Tribes and disadvantaged communities; its support of Integrated Regional Water Management Program efforts; its encouragement of meaningful participation by the public, including conducting Board meetings at locations and times most convenient for the public and providing Spanish translation services; its consideration of EJ in enforcement actions; and its support for Supplemental Environmental Projects to restore or preserve the environment, especially in disadvantaged communities.

The concept of EJ evolved from both the civil rights movement of the 1950s and 1960s and the environmental movement of the 1960s and 1970s. The civil rights movement resulted, in part, in the federal Civil Rights Act of 1964, which, in Title VI, forbids recipients of federal funds (including state agencies) to discriminate based on race, color and national origin. The environmental movement resulted, in part, in passage of the National Environmental Policy Act (NEPA) in 1969. NEPA requires federal agencies to prepare environmental impact statements for federal actions that could significantly affect the quality of the human environment. The Council on Environmental Quality, which was established by NEPA, reported in 1971 that racial discrimination had a negative impact on the environment of the urban poor, and that there was a correlation between toxic risk and income, finding that income disparities adversely affected the ability of poor communities to improve the quality of their environment. This and later reports documented evidence that industrial and waste treatment or disposal facilities that expose people to hazardous or toxic materials are more often sited in areas that affect minority and low-income communities. Evidence has also been documented that enforcement of environmental laws has been less vigorous in minority and low-income areas.

California became one of the first states to implement concepts of EJ with adoption of Government Code Section 65040.12 in 1970. Section 65040.12, subdivision (e) defines environmental justice as "the fair treatment of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." This law established the Office of Planning and Research (OPR) as the coordinating agency in state government for EJ programs and requires that OPR consult with the Secretary of California Environmental Protection Agency (CalEPA), among other state agencies, on EJ efforts.

Environmental Justice Program Implementation

Significant federal efforts to implement EJ occurred in 1994, with President Clinton's signing of Executive Order 12898. That Order required all federal agencies to include EJ as part of their missions. The Order also directs federal agencies to identify and address the disproportionately high and adverse human health of environmental effects of their actions on minority and low-income populations. The Order requires federal agencies develop strategies to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identify differential patterns of consumption of natural resources among minority populations and low-income populations. The Order also applies to state and local agencies that receive funding from the federal government.

Similar to federal requirements, California's Public Resources Code Sections 71110-71116, adopted in 2001, requires CalEPA to develop and implement an EJ strategy. In August 2004, CalEPA published its *Intra-Agency Environmental Justice Strategy*, and, in October 2004, CalEPA published its *Environmental Justice Action Plan*. In February 2014, CalEPA reported to the Governor and the Legislature on actions taken to implement Public Resource Code sections 71110-71116 through its *Environmental Justice Program Update*.

To facilitate the public's participation in environmental decisions regarding water quality and water rights, in 2011 the State Water Resources Control Board (State Water Board) published the *Citizen's Guide to Working with the California Water Boards*. This Guide describes the State and Regional Water Boards, identifies their mission and responsibilities, and discusses opportunities for public involvement in meetings and collaborative efforts, and how to communicate with and receive information from the Water Boards. Working with Tribal governments is also discussed. The Guide describes how the Water Board's EJ goals are integrated in the Water Boards' Strategic Plan.

Another significant step in EJ was taken two years ago with the Legislature's passage of Assembly Bill 685 (Chapter 524, Statutes of 2012), which is codified in Water Code Section 106.3. This law recognizes that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."

Appendix 2

California Tribal Consultation List

(attached)

Appendix 3

Hypertext Links in the Document

Lahontan Water Board website: *http://www.waterboards.ca.gov/lahontan/*

Government Code section 65040.12:
http://leginfo.legislature.ca.gov/faces/codes_displaysection.xhtml?lawcode=gov&sectionnum=65040.12

Lahontan Water Board Agenda Item on Environmental Justice:
http://www.waterboards.ca.gov/lahontan/board_info/agenda/2014/jun/item_7.pdf

Water Quality Coordinating Committee meeting, October 2013:
http://www.waterboards.ca.gov/board_reference/2013fall/index.shtml

CalEnviroScreen: http://oehha.ca.gov/ej/ces2.html

CalEPA Tribal Policy: http://www.calepa.ca.gov/tribal/Documents/CIT01Policy.pdf

CalEPA EJ Strategy:
http://www.calepa.ca.gov/envjustice/documents/2004/strategy/final.pdf

Citizens Guide to Working with the California Water Boards:
http://www.waterboards.ca.gov/publications_forms/publications/general/docs/citizenguide2011.pdf

AB 685, Human Right to Water:
http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB685

Inyo-Mono Integrated Regional Water Management Program: http://inyo-monowater.org

"Living in the Rain Shadow": http://vimeo.com/98829203

Mid-Grant Synthesis Report: http://inyo-monowater.org/wp-content/uploads/2011/09/im_dac_mid-grant_synthesis_final.pdf

Mojave Integrated Regional Water Management Program: http://www.mywaterplan.com/

Civil Rights Act, Title VI: http://www.archives.gov/eeo/laws/title-vi.html

National Environmental Policy Act: http://www.gsa.gov/graphics/pbs/nepa.pdf

Council on Environmental Quality report: http://www.slideshare.net/whitehouse/august-1971-the-first-annual-report-of-the-council-on-environmental-quality

Executive Order 12898: http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf

Public Resources Code sections 71110-71116:
http://leginfo.legislature.ca.gov/faces/codes_displaytext.xhtml?lawcode=prc&division=34.&title=&part=3.&chapter=&article=

Intra-Agency Environmental Justice Strategy:
http://www.calepa.ca.gov/envjustice/documents/2004/strategy/final.pdf

Environmental Justice Program Implementation

Environmental Justice Action Plan:
http://www.calepa.ca.gov/envjustice/actionplan/documents/october2004/actionplan.pdf

Environmental Justice Program Update:
http://www.calepa.ca.gov/publications/reports/2014/ejupdaterpt.pdf

Water Code section 106.3:
http://leginfo.legislature.ca.gov/faces/codes_displaysection.xhtml?lawcode=wat&sectionnum=106.3