

Environmental Justice Program Update





Environmental Justice Program Update

A report to the Governor and the Legislature on actions taken to implement Public Resources Code Sections 71110-71116

> Edmund G. Brown Jr. Governor

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Message from the Secretary

California is a land of promise. For many, however, it is a promise that remains unfulfilled. Too many communities in the state continue to bear a disproportionate share of environmental pollution, while also dealing with other socioeconomic and health issues. There are many reasons for this: Some areas are wrestling with the legacy of longpast industrial and agricultural practices, while others are grappling with the cumulative impacts of earlier land use decisions. Residents near trade corridors may feel the brunt of air pollution that, in spite of some of the country's strictest regulatory controls, may be caused by trucks and trains that route goods to the rest of the nation. Natural conditions and disasters, such as droughts or extreme weather events brought on by a changing climate, present further challenges.

Meeting the needs of these disadvantaged communities is one of many daily tests we face at CalEPA. These communities require our focused attention and deserve to experience the privileges of a clean environment and economic prosperity that many Californians enjoy today. Here are a few things we have done to make environmental justice a priority:



- CalEPA will award \$1 million in 2016 to community-based organizations and Tribal governments working to promote environmental justice.
- CalEPA has established a pilot multi-agency enforcement program to prioritize compliance with environmental laws in disadvantaged communities.
- \$469 million has been invested through the Greenhouse Gas Reduction Fund for projects that reduce greenhouse gases and benefit disadvantaged communities.
- CalEnviroScreen is now available in Spanish for the 10 million Californians who primarily speak Spanish at home.

This report builds upon our 2014 Environmental Justice Program Update. It gives focus to many individual and coordinated tasks that collectively present our efforts to embrace and integrate the fundamental principles of environmental justice.

Matthew Rodriquez Secretary for Environmental Protection

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Introduction

This report details the progress that the California Environmental Protection Agency (CalEPA) and its boards, departments, and office (BDOs) have made from summer 2013 to the end of 2015. By law, CalEPA is required to prepare a report to the Governor and Legislature every three years on the activities it has undertaken in achieving the objectives identified in the Intra-Agency Environmental Justice Strategy. The first section of this report provides updates on significant environmental justice legislation passed in California since 2013. The second section of the report provides updates on CalEnviroScreen, the Environmental Justice Compliance and Enforcement Working Group, and the Environmental Justice Small Grant Program. The third section describes the BDOs' community partnership with the Identifying Violations Affecting Neighborhood (IVAN) tool. Finally, the fourth section provides an account of the environmental justice accomplishments and goals of the Agency's BDOs.

Key Accomplishments

CalEPA and its BDOs have made considerable progress in implementing the Intra-Agency Environmental Justice Strategy, adopted in August 2004. Some key accomplishments from 2013-2015 include:

California Environmental Protection Agency

The CalEPA Environmental Justice Small Grant Program more than doubled its previous amount awarded from \$249,175 to 13 organizations in 2013, to \$540,574 to 28 organizations in 2015.

Air Resources Board

The Air Resources Board oversees multi-agency coordination of the Cap-and-Trade auction proceeds, which provides transformative investments in disadvantaged communities. As of December 2015, 51 percent of the \$912 million dollars implementing California Climate Investments are funding projects that provide benefits to disadvantaged communities; 39 percent of the \$912 million are funding projects located within disadvantaged communities.

Department of Pesticide Regulation

The Department of Pesticide Regulation expanded pesticide safety outreach to farmworkers using in-person training, presentations, videos, and Spanish radio ads. Outreach materials were created in Spanish, Mixteco, Zapoteco and Punjabi languages. 18,000 Spanish language wallet cards with the 1-87-Pestline toll-free number were distributed. Staff participated in over 200 outreach events focused on workers and families, reaching thousands of people.

CalRecycle

CalRecycle hired a new Environmental Justice Program Manager who collaborates with others to form a new program specifically dedicated to environmental justice. Progress has been made in completing environmental justice principles, a strategic plan, and Connecting Communities to CalRecycle (C³), a 45 page guide aimed at informing communities about their programs, services, and decision making process. Importantly, this guide was released in Spanish in February 2016.

Department of Toxic Substances Control

The Department of Toxic Substances Control created the Assistant Director for Environmental Justice position, established a Safer Consumer Products and Workplace Program, drafted a Supplemental Environmental Projects Policy, and trained on the use of CalEnviroScreen and other screening tools to prioritize actions benefiting disadvantaged communities.

Office of Environmental Health Hazard Assessment

The Office of Environmental Health Hazard Assessment released, for the first-time, Spanishlanguage interactive maps for the California Communities Environmental Health Screening Tool (CalEnviroScreen 2.0). CalEnviroScreen has been helping policymakers, scientists, and everyday Californians to identify communities with high pollution and who are vulnerable to the impacts of pollution. Many of the Californians who live in the communities identified by CalEnviroScreen as most burdened by pollution speak Spanish as their primary language. Making this information accessible to Spanish speaking Californians helps to advance the efforts of environmental justice.

State Water Resources Control Board

The State Water Resources Control Board created a new Office of Sustainable Solutions to identify and address the problems faced by small and disadvantaged communities, focusing on financial and technical assistance. The State Water Resources Control Board continues to work with high risk areas of the state vulnerable to nitrate contamination in wells, and has provided funding and on the ground technical assistance for emergency drinking water needs during the unprecedented drought. In response to drought-stricken communities, the Governor approved \$1.6 billion emergency drought relief funds. The State Water Resources Control Board helped provide interim replacement drinking water for economically disadvantaged communities with contaminated water supplies.

Legislative Overview

Recent Legislation

From 2013-2015 there has been various environmental justice legislation passed in California including:

- AB 1329 (Perez, Chapter 598, Statutes of 2013) required the Department of Toxic Substances Control to prioritize enforcement actions affecting communities that have been identified by the CalEPA as being the most impacted environmental justice communities.
- AB 1179 (Bocanegra, Chapter 589, Statutes of 2014) authorized the Department of Resources Recycling and Recovery, when awarding grants pursuant to the tire recycling program, to award grants for public works projects to create parklets, greenways, or both, that use tire-derived products. It also required the department, if it awards those grants, to give priority for funding to those projects in disadvantaged communities.
- SB 861 (Committee on Budget and Fiscal Review, Chapter 35, Statutes of 2014) increased the maximum amount of the Environmental Justice Small Grant from \$20,000 to \$50,000. The bill authorized the Secretary for CalEPA to expend up to \$1,500,000 per year for the above purposes. The bill authorized the BDOs within the agency to allocate funds from various special funds, settlements, and penalties to implement the program.
- SB 1204 (Lara, Chapter 524, Statutes of 2014) created the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program, to be funded from cap and trade revenues, to fund zero- and near-zero emission truck, bus, and off-road vehicle and equipment technologies and related projects with priority to be given to certain projects. Priority shall be given to projects benefiting disadvantaged communities. The program is administered by the Air Resources Board, in conjunction with the State Energy Resources Conservation and Development Commission. The bill required the state board, in consultation with the commission, to create an annual framework and plan, and to develop guidance through the existing Air Quality Improvement Program funding plan process for implementation of the program.
- AB 1071 (Atkins, Chapter 585, Statutes of 2015) required each BDO with the CalEPA, that has enforcement authority, to establish specified policy supplemental environmental projects that benefit disadvantaged communities.

AB 1288 (Atkins, Chapter 586, Statutes of 2015) increased the membership of the California Air Resources Board from 12 to 14. The two new board members work directly with communities in the state that are most significantly burdened by, and vulnerable to, high levels of pollution, including, communities with diverse racial and ethnic populations and communities with low-income populations.

- SB 83 (Committee on Budget and Fiscal Review, Chapter 24, Statutes of 2015) established the Assistant Director for Environmental Justice at the Department of Toxic Substances Control. The Assistant Director serves as ombudsperson and outreach coordinator for disadvantaged communities where hazardous materials and hazardous waste disposal facilities are located.
- SB 88 (Committee on Budget and Fiscal Review, Chapter 27, Statutes of 2015) authorized the State Water Resources Control Board to order consolidation with a receiving water system where a public water system, or a state small water system within a disadvantaged community, consistently fails to provide an adequate supply of safe drinking water. This bill authorized the state board to order the extension of service to an area that does not have access to an adequate supply of safe drinking water. The bill also required the state board to conduct an initial public meeting and a public hearing and to make specified findings.
- SB 328 (Hueso, Chapter 278, Statutes of 2015) required the landlord or the landlord's authorized agent to provide a tenant with specified notice of the use of pesticides at the dwelling unit if the landlord or authorized agent applies any pesticide without a licensed pest control operator. It also required the posting of a similar notice at least 24 hours prior to application of any pesticide to a common area without a licensed pest control operator. For scheduled application in common areas, a notification is required to existing tenants prior to the initial routine application and to new tenants.
- SB 350 (de León, Chapter 547, Statutes of 2015) required the State Air Resources Board, in consultation with the Energy Commission and with input from relevant state agencies and the public, to develop and publish a study on barriers for low-income customers to zeroemission and near-zero-emission transportation options, including those in disadvantaged communities. The board must also include recommendations on how to increase access to zero-emission and near-zero-emission transportation options to low-income customers, including those in disadvantaged communities.
- SB 673 (Lara, Chapter 611, Statutes of 2015) ensured that low-income communities and communities of color are protected from the impacts of hazardous waste. This bill required the Department of Toxic Substances Control, by January 1, 2018, to establish or update criteria for use in determining whether to issue a new or modified hazardous waste facilities permit or a renewal of a hazardous waste facilities permit. The department will consider the vulnerability of, and existing health risks to nearby populations when establishing or updating the criteria. Additionally, the bill required the Department of Toxic Substances Control to develop and implement programmatic reforms designed to include strengthening environmental justice safeguards, enhancing enforcement of public health protections, and increasing public participation and outreach activities.

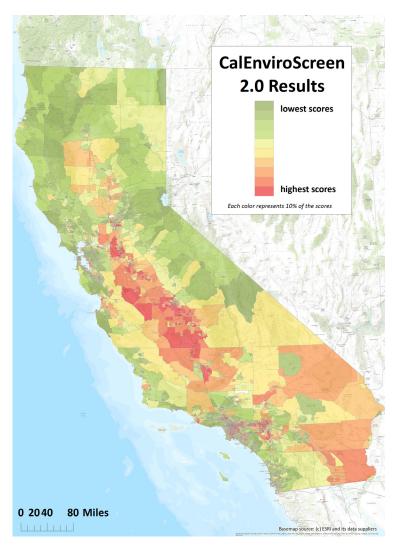
CalEPA Environmental Justice Program

CalEnviroScreen

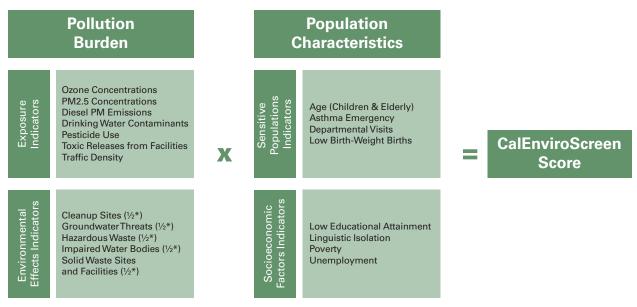
A large number of Californians live in the midst of multiple sources of pollution. Some people and communities are more vulnerable to the effects of pollution than others. In order to respond to this situation, it is important to identify the areas of the state that face multiple pollution burdens so programs and funding can be appropriately directed toward improving the environmental health and economic vitality of the most impacted communities.

For this reason, CalEPA and the Office of Environmental Health Hazard Assessment have developed the California Communities Environmental Health Screening Tool (CalEnviroScreen).

CalEnviroScreen uses existing environment, health, and socioeconomic data to consider the extent to which communities across the state are burdened by and vulnerable to pollution. CalEnviroScreen originated from CalEPA's Environmental Justice Action Plan, which called for CalEPA and its BDOs to develop guidelines for evaluating cumulative impacts from multiple pollution sources. CalEPA tasked the Office of Environmental Health Hazard Assessment with developing guidance on evaluating cumulative impacts. The result of that effort was the first version of CalEnviroScreen, formally released in April 2013. Since then, there have been two updates to the tool, CalEnviroScreen 1.1 and the newest version, CalEnviroScreen 2.0.



The tool evaluates the collective burdens of multiple sources of pollution by census tract. It does so by assessing pollution burden and population characteristics to create a relative ranking of communities across the state. The factors included in CalEnviroScreen are:



*Environmental effects indicators are assigned a half weight

CalEnviroScreen was developed for CalEPA and its BDOs. Since 2013 it has been used in administering environmental justice grants, promoting greater compliance with environmental laws, prioritizing site-cleanup activities, and identifying opportunities for sustainable economic development in heavily impacted neighborhoods. Various entities and interested parties have identified additional uses for this tool and the information it provides. For example, the tool has been used to advance Green Zones, place-based strategies that use community-led solutions to transform polluted areas into healthy thriving neighborhoods, as well as in the grant guidelines of the CalTrans Active Transportation Program.

Additionally, CalEnviroScreen informs CalEPA's identification of disadvantaged communities pursuant to SB 535 (de León, Chapter 830, Statutes of 2012). SB 535 requires CalEPA to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria. It also requires that the investment plan developed and submitted to the Legislature pursuant to AB 1532 (John A. Pérez, Chapter 807, Statutes of 2012) allocate no less than 25 percent of the State's portion of available proceeds from the carbon auctions held under AB 32 (California's Global Warming Solutions Act of 2006) to projects that will benefit these disadvantaged communities. At least 10 percent of the available moneys from these auctions must be directly allocated to projects in such communities.

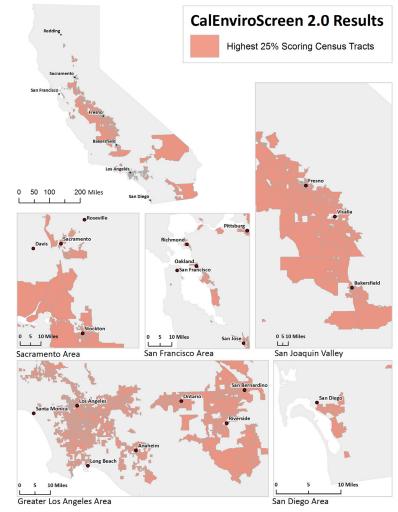
In October 2014, following a series of public workshops to gather public input, CalEPA released its list of disadvantaged communities for the purpose of SB 535. CalEPA relied on CalEnviroScreen to identify the areas disproportionately burdened by and vulnerable to multiple sources of pollution. CalEPA designated the top 25 percent of census tracts in California as disadvantaged communities.

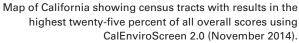
The auction proceeds, also known as the Greenhouse Gas Reduction Funds grants, are administered by state agencies for a variety of greenhouse-gas cutting programs, including energy efficiency, public transit, low-carbon transportation and affordable housing. Guidelines written by the Air Resources Board help these agencies develop programs that meet statutory requirements for reducing emissions while maximizing the benefits to disadvantaged communities.

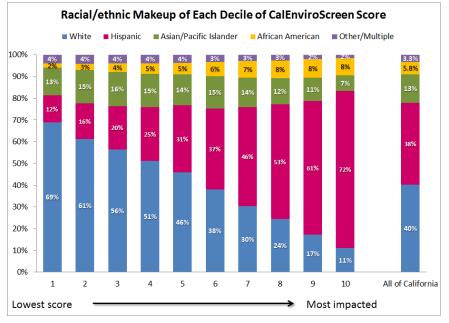
Furthermore, CalEnviroScreen 2.0 scores and 2010 decennial census data have been used by the Office of Environmental Health Hazard Assessment to evaluate potential associations between race/ethnicity. The chart below examines how communities grouped by their CalEnviroScreen score vary demographically. Census tracts across the state were divided into ten categories (deciles) with equal numbers of census tracts in each group. The left-most vertical bar shows the race/ethnic makeup of the least impacted census tracts (1-10th percentile of CalEnviroScreen score), while the one next to it shows the makeup of the second-least impacted group

of census tracts (11-20th percentile), and so on. The overall demographic makeup of the California population is shown in the last vertical bar on the right side of the chart.

If impacts were distributed equally across the California population, the proportion of each racial/ethnic group in each decile would be equal to its overall proportion in the California population. That is, an even distribution of pollution burden and population vulnerability across racial and ethnic groups would mean that all







the bars would resemble the right-most bar in the chart. However it is clear from the chart that this is not the case. Instead, Hispanic/Latinos and African Americans disproportionately reside in highly impacted communities while other groups tend to reside disproportionately in less impacted communities.

Another way to look at this question is to consider the proportion of each race/ethnic group's population that resides in each category of impact. As the illustration shows, the fraction of different racial/ethnic groups living in one of the 20 percent most impacted communities are lowest for white Californians, and highest for Hispanic/Latino Californians, closely followed by African American Californians. (These fractions are calculated by dividing the population living in the most impacted 20 percent by the total population of that group.)

CalEnviroScreen helps know which areas of the state have higher relative environmental burdens and helps with efforts to increase compliance with environmental laws in disproportionately impacted areas. CalEnviroScreen also provides CalEPA and its BDOs with additional insights on the potential implications of their activities and decisions.

Environmental Justice Compliance and Enforcement Working Group

CalEPA is committed to ensuring that areas

disproportionately impacted by multiple pollution sources and more vulnerable to the effects of pollution are given due consideration in all Agency activities. This includes statewide efforts to ensure regulated entities are complying with environmental laws. Consistent with this commitment, CalEPA has established an Environmental Justice Compliance and Enforcement Working Group, which includes staff from all of the CalEPA BDOs.

In collaboration with local partners, this group will identify disproportionately impacted areas using CalEnviroScreen and other data and work to increase compliance in those areas. Additionally, the Working Group will enhance communications with residents and seek input from affected communities on various aspects of the initiative. Through these collective efforts, CalEPA will advance environmental justice goals of fair treatment and meaningful community involvement and strengthen the Agency's ability to consider multiple pollution sources during compliance and enforcement initiatives.

The Working Group's goals are as follows:

- Advance the environmental justice goals of CalEPA's Intra-Agency Environmental Justice Strategy through targeted compliance assistance and enforcement in areas disproportionately impacted by health and environmental factors.
- Provide community stakeholders with meaningful opportunities for input on potential environmental justice concerns and the implementation of proposed remedies.
- Incorporate community input in planning and implementing compliance assistance and enforcement initiatives in disproportionately impacted areas.

Fraction of racial/ethnic groups living in one of the 20% most impacted census tracts:

White	1 in 14
Hispanic	1 in 3
Asian/Pacific	1 in 8
African American	1 in 4
Other/Multiple	1 in 9
Native American	1 in 7

- Increase coordination among CalEPA BDOs to facilitate cross-media compliance and enforcement efforts.
- Increase compliance in disproportionately impacted areas to prevent and reduce burdens.
- Improve communication with communities and the public regarding environmental justice concerns and the benefits of compliance and enforcement actions.
- Tailor remedies in compliance and enforcement actions to improve and address concerns within disproportionately impacted areas.
- Improve and increase environmental monitoring to determine levels of exposure and risk and track improvements over time.
- Develop and implement protocols to provide community stakeholders with compliance and enforcement information, such as inspection reports and notices of violations.
- Invite local agency partners to participate in the working group.
- Increase coordination with local, state, and federal regulatory and law enforcement agencies in compliance and enforcement efforts in disproportionately impacted areas.

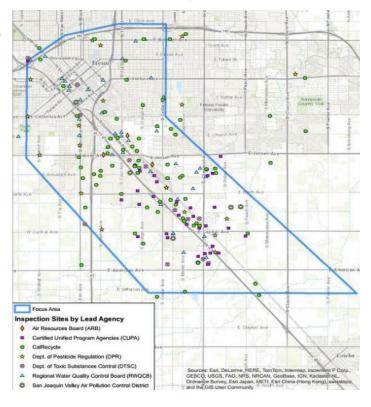
In 2013 and 2014, the Working Group selected the City of Fresno and its surrounding unincorporated area for its first initiative. The Working Group designed the Fresno initiative with the goal of reducing pollution and its impact on that community's population. This initiative featured three components:

- · Community consultation to determine community concerns;
- · Compliance assistance for regulated industries and businesses;
- Coordinated, multi-agency compliance inspections and enforcement activities designed to concurrently address environmental issues within the community.

Initiative highlights include:

- The overall compliance rate among facilities and industries was 87 percent.
- Solid waste facility inspections yielded a 100 percent compliance rate.
- ARB inspected 272 heavy-duty diesel vehicles and 44 locomotives for compliance with air pollution regulations and issued 46 citations.
- DTSC issued a \$4,000 penalty for inappropriate hazardous waste storage. Two other enforcement actions for hazardous waste violations are pending.

The Working Group is building upon its efforts in Fresno and is currently conducting a Compliance Assistance and Enforcement Initiative in the Boyle Heights and Pacoima neighborhoods of Los Angeles.



Environmental Justice Small Grants 2015

The passage of AB 2312 (Chu, Chapter 994, Statutes of 2002) established an environmental justice small grants program at CalEPA. Since its inception in 2002, the environmental justice small grants program has awarded 81 grants totaling \$1,711,614 to community-based organizations and federally recognized Tribal governments that address environmental justice issues at a grassroots level. In 2013, the EJ Small Grants program provided \$250,000 to 13 organizations. In 2015, CalEPA awarded more than \$500,000 in grants to 28 organizations to improve environmental and health conditions and promote public engagement in California communities disproportionately burdened by pollution. A minimum of \$1 million in grant funds is available for the 2016 grant cycle.



The program is designed to support and empower communities working on solutions to local environmental and public health issues. It also seeks to assist recipients in building collaborative partnerships to help them understand and address environmental and public health issues in their communities. This past year, the program aimed to fund projects that:

- Improve access to safe and clean water.
- Reduce the potential for exposure to pesticides and toxic chemicals.
- Promote community capacity building -- improve communities' and Tribes' understanding of the technical and procedural aspects of environmental decision-making.
- Promote the development of community-based research that protects and enhances public health and the environment.
- Address cumulative impacts through collaboration between community-based organizations and local government.

2015 Environmental Justice Small Grants Project Summaries

APA Family Support Services/Asian Pacific Islander Family Resources Network, Bay Area, San Francisco (\$20,000) The APA Family Support Services will train 50 family service practitioners in the San Francisco area on hazards of toxic exposure to mercury from fish consumption, pesticides in food, and chemicals in cleaning products. The trained practitioners and other local health experts will conduct workshops and distribute flyers in Chinese, Vietnamese, Laotian, Cambodian, Tagalog and Samoan languages. The goal is to reduce children's exposure to potentially harmful toxic substances by increasing awareness in parents.

Big Valley Band of Pomo Indians, Northern California, Lake County (\$20,000) The Big Valley Band of Pomo Indians will collaborate with Elem Indian Colony of Pomo Indians to manage the Clear Lake Cyanobacteria Task Force. The project will include water sampling to understand and address the algal blooms in Clear Lake, and will also identify when and where Tribal activities are taking place as a means to assess risks to the community.

Calexico New River Committee, Inc., San Diego/ Imperial, Calexico (\$16,445) The Calexico New River Committee will conduct a cross border leadership summit to bring together community and government leaders from California, Imperial County, Mexicali and Baja California to craft implementation strategies for New River Improvement Project and Strategic Plan. The Summit will benefit the residents of Calexico and other communities within Imperial County that are adversely affected by New River water pollution issues.

California Indian Environmental Alliance, Northern California, North Coast (\$15,000) The California Indian Environmental Alliance will







partner in the North Coast Resource Partnership Tribal Engagement that will encourage economically disadvantaged Tribes to engage in regional decision-making processes. The Partnership will increase the access to clean water through funded projects, and reduce the potential for exposure to mercury and PCBs by identifying safe fishing areas. California Rural Legal Assistance, Inc., Central California, Salinas Valley, Fresno and Oxnard/ Ventura areas (\$20,000) According to U.S. EPA statistics, farmworkers are at high risk for pesticide exposure. In California, there is a growing population of indigenous farmworkers who come from rural parts of Mexico. Outreach efforts to inform indigenous farmworkers about pesticide safety and laws can be challenging due to language barriers. California Rural Legal Assistance will provide pesticide safety training and accessible outreach materials for about 500 indigenous farmworkers (Triqui, Mixteco, and Zapoteco) in the Salinas Valley, Fresno, Oxnard, and Ventura areas.



Center for Community Action and Environmental Justice, Inland Empire, San Bernardino and Riverside Counties (\$20,000) The Center for Community Action and Environmental Justice will assist community organizations in the Inland Empire region through training on strategic planning, messaging and media practices, and engagement with elected officials. The program will result in more effective efforts by community groups to improve their social and natural environment negatively impacted by industrial and commercial enterprises in the area.

Center on Race, Poverty and the Environment (CRPE), Central Valley, Delano, Allensworth (\$20,000) The Center on Race, Poverty and the Environment will enable residents of Kern and Tulare counties to participate effectively in watershed projects that directly affect their communities. CRPE will develop 10 community leaders to educate Allensworth and Delano residents about water issues and the drought, create educational materials on water issues, conduct regular meetings with community members, and participate in the Strategic Growth Council in Tulare to ensure outreach to vulnerable community members.

Community Water Center, Central Valley, southern San Joaquin Valley (\$20,000) The Community Water Center will empower San Joaquin Valley residents to understand and participate in water policy decision making to ensure safe and affordable drinking water solutions. The program will educate at least 400 residents in 20 disadvantaged communities through in-person, phone, email and online outreach trainings. The goal is to boost water quality in the San Joaquin Valley and reduce exposure to toxic chemicals through improved community engagement.



CSU Fullerton Auxiliary Services Corporation,

Los Angeles County (\$20,000) The CSU Fullerton Auxiliary Services Corporation will teach high school students about air quality issues and give them the skills to become leaders on environmental concerns in their own communities. Approximately 60 youth will participate in a 12-week after-school high school educational program in four high schools in the cities of Anaheim, Alhambra and Los Angeles.

Del Amo Action Committee, Los Angeles, Los Angeles County (\$20,000) The Del Amo Action Committee will lead the Los Angeles Groundwater Basin Restoration Convening that is a collaborative effort to stop the spread of contaminated groundwater plumes in the LA Groundwater Basin and restore groundwater health. Del Amo will also continue to facilitate the monthly Los Angeles EJ Network meetings to spread the word about efforts to improve groundwater in the LA area. East Yard Communities for Environmental Justice, Los Angeles County, Commerce (\$20,000) The City of Commerce developed a Green Zone policy with the goals to prevent toxic exposures through new development, reduce impacts of existing exposures, revitalize economic opportunities, and reinvest in key boulevards to improve business and quality of life. East Yard Communities for EJ will raise the visibility of Green Zones by conducting community organizing and outreach activities, alliance building, policy development, and leadership activities that will turn Green Zone policies into tangible results that benefit Commerce residents.

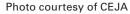
Environmental Health Coalition, San Diego County, Barrio Logan, City Heights (\$20,000) The Environmental Health Coalition will deliver education and training on climate change and its environmental and health impacts via its Advancing Health and Climate Justice Project. The Project will enhance meaningful participation by community members in the planning and

implementation of climate change policies called for in Climate Action Plans for City of San Diego.

California Environmental Justice Alliance (fiscal sponsor: Environmental Health Coalition), Statewide (\$20,000) The California Environmental Justice Alliance will bring together residents from low-income communities and communities of color in a 2-day 300 person Environmental Justice Congreso. The Congreso will give residents opportunities to share stories and receive training on statewide decision-making and engagement to improve the disproportionate impacts of pollution, poor land-use, and other environmental issues that affect their neighborhoods.

Environmental Justice Coalition for Water, Central California, North Monterey County (\$18,972) Environmental Justice Coalition for Water works primarily with low-income, Spanishspeaking communities in Monterey County to ensure they are represented in water policy decision making. New curriculum will train residents to become water savvy community leaders who can participate in policy decisions. The pilot training will take place in Springfield Terrace, Las Lomas and Royal Oaks which lack reliable access to safe affordable drinking water. The project will ultimately develop and evaluate an environmental justice curriculum for use on the rest of the Central Coast.

Girls Incorporated of Alameda County, Bay Area, East Oakland and San Leandro (\$19,540) Girls Incorporated of Alameda County will add environmental justice concepts and activities to its InnovaTE^3 program that encourages ethnically diverse girls from low-income neighborhoods, to pursue science, technology, engineering and math careers. The program will reach 80 8th and 9th grade girls residing in Oakland and San Leandro. Activities include water and soil testing, designing models of green technology, and developing community "calls to action" on environmental issues.









Global Community Monitor, Bay Area, Pittsburg, Richmond, Martinez, Benicia, Crocket-Rodeo (\$20,000) Global Community Monitor will provide ongoing training and an air sampling program to five low-income, minority communities affected by the concentration of oil refineries and other industrial facilities in the Bay Area. Residents of Pittsburg, Martinez, Benicia, Rodeo and Richmond will learn about current pollution levels, and receive technical support to conduct sampling to track emissions and air quality over time. The knowledge and empirical evidence gained through these activities will give residents the tools to engage in decision making that will improve environmental quality in their neighborhoods.

Greenaction for Health and Environmental Justice, Bay Area, Bay View Hunter's Point (\$20,000) Greenaction for Health and Environmental Justice will establish a multistakeholder environmental task force that will include representatives from San Francisco's Bay View Hunter's Point neighborhood. The task force will conduct public meetings, develop a community reporting website, and ultimately work toward improving the environmental quality of the region and health of its residents.

National Indian Justice Center, Statewide (\$20,000) The National Indian Justice Center will



develop a pilot-test and evaluate an online educational program, "Understanding Consultation and Collaboration between CalEPA and California Tribes." This statewide project will help Tribes better understand the planning, hierarchy and decision making processes within the California Environmental Protection Agency and its various departments. When Tribal leaders understand CalEPA's role in environmental Tribal regulatory programs and interests, more informed partnerships and effective environmental program efforts will develop.

Pacoima Beautiful, Los Angeles County, northeast San Fernando Valley (\$15,000) Pacoima Beautiful will teach 50 high school students from northeast San Fernando Valley through its Youth Environmentalists 4-week summer institute about the environment, EJ, and environmental stewardship. Pacoima Beautiful will also train the students on how to engage in the public process and public speaking to prepare them to make positive impacts in their community.

People's Community Organization for Reform and Empowerment, Los Angeles County, Carson (\$19,304) Residents within the City of Carson experience language barriers, poverty and limited education that make them particularly vulnerable to environmental health risks from multiple pollution sources. People's Community Organization for Reform and Empowerment (People's CORE) will train 10 Carson residents to become Environmental Educators in their own communities and participate in Air Quality Management District meetings.





Iris Cantor - UCLA Women's Health Education and Resource Center, Los Angeles County, Los Angeles (\$20,000) The Planning for a Healthy and Chemical-Free Baby project aims to reduce damaging exposure from environmental toxins in women of childbearing age by educating low-income women of color on how to avoid or minimize exposures. Women will learn about avoiding toxins used in everyday household and beauty products, how to make their own nontoxic products and options for purchasing inexpensive alternatives. Education will be delivered through existing pre-conception programs.

Rose Foundation for Communities and the Environment, Bay Area, Oakland (\$19,983) The Rose Foundation for Communities and the Environment "New Voices Are Rising" Project will build community power by training and empowering 15 disadvantaged high school students to become the next generation of community leaders in the Oakland area. The Project will serve high school students ages 14 to18 who live in low-income communities. The Rose Foundation students will learn issue analysis, community mapping, problem solving, issue development, community outreach, and public speaking.

San Joaquin Valley Latino Environmental Advancement Project (fiscal sponsor: Center for Energy Efficiency and Renewable Technologies), Central Valley, Fresno (\$19,720) The San Joaquin Valley LEAP Project will develop a curriculum of train-the-trainers, so Promotoras can teach youth, farmworkers and parents to correctly identify and report environmental violations. Educational efforts will include recruitment of interns to conduct youth workshops. The project will also focus on improving the Kings County online environmental reporting system.

Scotts Valley Band of Pomo Indians, Northern California, Lake County (\$20,000) Scotts Valley Band of Pomo Indians, in collaboration with two other Clear Lake Tribes and 8 state and federal agencies, will pilot a signed based warning system to alert seasonal recreational visitors to Clear Lake about the danger level of harmful algal blooms and how to identify and avoid contact with these cyanotoxins. The project will also include development of educational materials, and public forums.

Central California Environmental Justice Network (fiscal sponsor: Social and Environmental Entrepreneurs), Central Valley, Fresno and Kern Counties (\$20,000) The Central California

Environmental Justice Network project, "Developing the Ability of Residents to Inform Government about Local Hazards and Helping Government Navigate Jurisdictional Overlays" will maintain and improve the Fresno Environmental Enforcement Network (FERN) and Kern Environmental Enforcement Network (KEEN). The project includes increasing the efficiency of FERN and KEEN taskforce meetings, maintaining and improving the web-based systems, and organizing with resident reporting groups in the EJ communities of Lamont and Delano in Kern County and Parlier and Calwa in Fresno County. The Central California Environmental Justice Network will ensure widespread education to

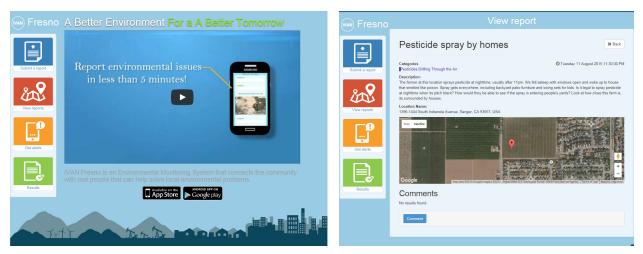


increase recognition of pollution sources and the use of regulatory.

The Sierra Fund, Northern California, Yuba and Bear watersheds in Nevada, Sierra, Yuba, and Placer Counties (\$19,699) The Sierra Fund, in partnership with South Yuba River Citizens League, Wolf Creek Community Alliance, and the Sierra Native Alliance will mobilize community members to post 200 fish consumption advisory signs near popular fishing locations, campgrounds and bait shops in the Yuba and Bear River watersheds. The project will also survey at least 60 anglers to ensure they are aware of the health risks of eating certain species of fish caught in the Sierra.

Timbisha Shoshone Tribe, High Sierra and Desert, Inyo County, Furnace Creek (\$16,911) The Timbisha Shoshone Tribal Village is completely surrounded by Death Valley National Park and is the hottest and driest area of the country because of lack of surface water. The only drinking water on village land comes through a Park Service provided water box and is delivered through an antiquated piping system. The Timbisha Shoshone Tribe project will improve access to safe and clean water for the village through the study of historical and current status of the drinking and groundwater systems, and exploration of strategies for remediation of the Tribe's water for its 260 members.

Wiyot Tribe, Northern California, Table Bluff Reservation, Loleta (\$20,000) The Wiyot Tribe, living on the Table Bluff Reservation in Loleta (Humboldt County), will raise the Tribe members' awareness of possible health hazards of household cleaning products and pesticides, and educate about less toxic alternatives. The project will train staff, create outreach materials, and offer hands-on activities to community members including youth garden field trips. The Tribe will partner with the Northcoast Community Garden Collaborative and the United Indian Health Services to organize its Tribal youth community garden and other community environmental activities.



Community Partners: Identifying Violations Affecting Neighborhoods

Identifying Violations Affecting Neighborhoods (IVAN) is an innovative community-based environmental monitoring system that allows users to report and map environmental violations in their community using a website, cell phone application, or call-in number. CalEPA and the BDOs have helped support the growth of IVAN; though the development of the tool is really an innovate collaboration of community and government addressing environmental complaints from the ground-up. IVAN places the power of technology in the hands of residents to document and monitor environmental health hazards in environmental justice communities. Using the IVAN program, residents are able to easily report environmental concerns they identify in their neighborhoods. Those reports are passed on to the appropriate agency by an assigned problem solver for follow-up. The results of the agency's action are reported back to the network and posted on the website. The IVAN model is shown below.



Image taken from: Jatkar, Shrayas; London, Jonathan. (2015). From Testimony to Transformation: The Identifying Violations Affecting Neighborhoods (IVAN) Program in California. Davis, CA: University of California, Davis Center for Regional Change.

In 2014-2015, CalEPA and the BDOs participated in three IVAN kick-off events for the newest IVAN networks in Los Angeles, Kings County and Bayview Hunter's Point. These IVAN networks join the existing networks to make a total of seven in California to date. The various environmental justice task forces are led by local, community driven environmental justice organizations. These task forces partner with environmental regulators at the local, state, and federal level that manifest a greater sense of trust, transparency and accountability. Over the next year, CalEPA and BDO staff will look for more opportunities to engage with additional environmental justice organizations in all areas of the State to ensure the needs of disadvantaged communities are being met.

Map of Statewide IVAN Networks



Environmental Justice Accomplishments and Goals

Air Resources Board

The Air Resources Board (ARB) is committed to achieving environmental justice by ensuring communities have a voice in ARB policy development, reducing emissions in disadvantaged communities, and addressing community concerns. ARB has partnered with local and community organizations, carried out research projects and air monitoring studies, conducted assessments of communities, ports and rail yards, adopted regulations, and refocused enforcement efforts and incentive programs, all in support of environmental justice goals. These actions have resulted in large improvements in air quality, especially in those communities where air pollution impacts have historically been the greatest. As its programs continue to move forward, ARB is committed to ensuring progress on environmental justice while meeting its air quality and climate change goals. Below is a summary of the environmental justice challenges and accomplishments from 2013-2015.

Challenges

- Attaining air quality goals in environmental justice communities by prioritizing reductions in diesel particulate emissions from freight, the greatest source of airborne cancer risk.
- Sharing the health and economic benefits of emission reduction incentive programs by developing projects that are accessible to Californians of all socioeconomic status and income levels.
- Ensuring the air quality of communities near Cap-and-Trade facilities is protected through the development of the Adaptive Management Program.

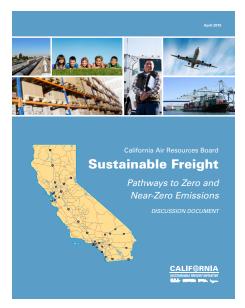
Accomplishments

Communities Near Freight Hubs

Neighborhoods around ports, rail yards, and distribution centers are exposed to higher levels of air pollution than most communities, and those neighborhoods include a large proportion of socially and economically disadvantaged residents. Reducing emissions from activities around these hubs represents a major opportunity to advance environmental justice.

- Overall Reductions in Diesel Pollution and Health Risk: Since 2005, the Port of Los Angeles and Port of Long Beach have achieved an 85 percent reduction in diesel particulate matter (PM) emissions based on ARB rules and port initiatives. From 2005 to 2010, the highest cancer risk rail yards showed a drop in risk from 40 to over 70 percent due to the introduction of cleaner trucks, locomotives, equipment, and fuel during this period.
- Enforcement of Heavy-Duty Diesel Vehicle Truck and Bus Regulation near Disadvantaged Communities: ARB coordinated efforts with the California Highway Patrol, local air districts, port authorities, Mexico-California border authorities, and the media to highlight compliance assistance and enforcement. In 2013-2014 ARB inspectors conducted 14,882 heavy-duty diesel vehicle and equipment inspections in areas identified as environmental justice communities in and around the Ports, rail yards, and at the Mexico-California border. As a result of those inspections, 1,212 citations were written representing a 95 percent compliance rate. From January to August 2015, ARB had conducted 8,908 inspections in support of those programs and written 868 citations representing a 90 percent compliance rate with the Heavy-Duty Diesel Vehicle Truck and Bus Regulations.

• Sustainable Freight Strategy Initiative: The Sustainable Freight Initiative (Initiative) is a broad, multi-decade effort to achieve a sustainable freight transport system that meets California's environmental, energy, mobility, and economic needs. As part of that Initiative, ARB released the Sustainable Freight Pathways to Zero and Near-Zero Discussion Document (Discussion Document). This Discussion Document describes actions that respond to the Board's direction to identify, prioritize, and recommend specific measures and actions, as well as other approaches to meet the State's air quality needs. The Discussion Document is ARB's initial air quality policy contribution to address localized health impacts, attainment of air quality standards, and achieving climate goals. At the April 2015 meeting, the Board received an informational update on the Discussion Document and adopted Resolution 15-22, which directed staff to continue developing a comprehensive, integrated sustainable freight state plan, in partnership with other state and local agencies known as the California Sustainable Freight Action Plan.



- **Drayage Trucks**: In 2007, ARB adopted the Drayage Truck Rule aimed at reducing emissions from diesel trucks serving ports and intermodal rail yards. ARB amended the rule in 2010 to close a loophole and ensure cargo is handled by a clean truck throughout its transport in California. 2014 marked the first year in which all diesel trucks serving ports and railyards must be registered and have 2007 or newer model year engines, including diesel particulate filters. In addition, the major ports in California. To date, over 200,000 drayage trucks are currently registered with 35,000 based in California. As a result, the rule has achieved roughly 70 percent reduction in nitrogen oxides (NOx) and 90 percent reduction in diesel PM. ARB is actively enforcing the Drayage Truck Rule and in 2013-2014 closed 301 enforcement actions and collected \$514,738 in penalties.
- Reducing emissions from ships: ARB began implementation of the Ocean Going Vessel Fuel regulations requiring large ships to burn cleaner fuel within 24 nautical miles of the California shoreline. ARB staff has inspected over 4,000 vessels and determined that the vast majority, over 95 percent, of vessel operators are in compliance with the requirements. A significant milestone was reached in January 2014 when the fuel sulfur limit dropped to 0.1 percent sulfur. Implementation of this regulation to date has prevented over 140,000 tons of sulfur oxides (SOx) and 15,000 tons of diesel PM emissions from ships. 2014 also marked a key milestone in the implementation of another ARB regulation for ships the At Berth Regulation. The At-Berth Regulation is intended to reduce emissions of diesel PM and NOx from auxiliary engines on vessels while at berth in California ports. Compliance options include turning off the auxiliary engines and plugging into shore-based electrical power or using barge-based systems to capture and control emissions. ARB is actively enforcing the Ocean Going Vessel Regulation and in 20132014 issued 71 Notices of Violation and collected \$1,394,269 in penalties.
- Cargo Handling Equipment (CHE): ARB's implementation of the CHE Regulation, adopted in 2005, has significantly reduced CHE emissions at California ports and intermodal rail yards. From 2006 to 2014, CHE diesel PM emissions have been reduced by 85 percent and NOx emissions by 68 percent. This regulation requires that best available control technology be implemented for both new and existing diesel-fueled CHE at California ports and intermodal rail yards either by retrofitting with a PM filter, replacing with an engine meeting current U.S. EPA emission standards, or retiring the CHE. When fully implemented in 2017, the regulation

will reduce emissions by over 90 percent for diesel PM and 73 percent for NOx. ARB is actively enforcing the Cargo Handling Equipment Regulation and in 2013-2014 closed 11 enforcement cases and collected \$675,758 in penalties.

- Commercial Harbor Craft (CHC): ARB's implementation of the CHC Regulation, adopted in 2007, is decreasing diesel emissions from CHC that work close to shore and operate high-use engines. This regulation requires that all unregulated and Tier 1 engines operating in certain vessel categories (including ferry, excursion, tug, tow, crew and supply, barge, and dredge) be replaced with new certified engines meeting the most stringent U.S. EPA marine engine emission standards. Compliance dates for these engine upgrades require the oldest, highest use engines to be upgraded first. From 2008 to 2015, diesel PM emissions from CHC are estimated to have been reduced by about 40 percent and NOx emissions by about 37 percent. When fully implemented in 2022, ARB's CHC regulation will reduce diesel PM by about 67 percent and NOx by about 55 percent. ARB is actively enforcing the Commercial Harbor Craft Regulation and in 2013-2014 issued 2 Notices of Violation and collected \$2,000 in penalties.
- Transport Refrigeration Units (TRU): TRU are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products. Trucks, trailers, and railcars that are equipped with TRUs, and refrigerated ocean-going shipping containers that use TRU generator sets while on land, congregate in large numbers at distribution centers, rail yards, and port terminals, which are often located near disadvantaged communities. ARB's TRU rule, adopted in 2004, requires owners of old, high-emitting TRUs and TRU generator sets to replace engines or equipment, or use alternative technologies in a way that reduces diesel PM emissions. When fully implemented, ARB's TRU rule will reduce PM emissions associated with TRUs and TRU generator sets by about 85 percent. ARB is actively enforcing the Transportation Refrigeration Unit Regulation and in 2013-2014 closed 783 enforcement actions and collected \$910,950 in penalties.
- Proposition 1B Funds: This voter approved ballot initiative provides incentives to diesel equipment owners to upgrade to cleaner models to achieve early or extra emission reductions prior to regulatory requirements, thus reducing diesel freight emissions and related health risks near ports, rail yards, freeways, and distribution centers. Approximately \$720 million dollars from Proposition 1B funds have been spent upgrading drayage and other trucks, upgrading locomotives and commercial harbor craft, and installing shore-

Air Basin	Proposition 1B Funding
South Coast AQMD	\$117.5м
San Joaquin Valley APCD	\$43.1 м
Sacramento Metro AQMD	\$11.5м
Bay Area AQMD	\$38.5м
San Diego APCD	\$10.1м

based electrical power for ships in California's four major trade corridors. As of September 2015, over 12,000 trucks have been operating with cleaner engines; 25 locomotives and three harbor craft were upgraded; and 37 ship berths were equipped with shore-based electrical power. In June 2015, ARB updated the Proposition 1B Program Guidelines to include modifications to project types and increased funding for zero and near-zero emission equipment. In September 2015 the Board approved \$220 million in funding awards to five local air districts. Below are the funds awarded by the Board, which will become operational in 2016:

Near-Roadway Neighborhoods

Residents of neighborhoods near freeways and other major roadways are exposed to a disproportionate share of emissions impacts from vehicle traffic. Traffic-related air pollution can represent a significant source of exposure to air pollution in disadvantaged urban communities. Since setting the nation's first tailpipe emission standards in 1961, California has led the nation in adopting a series of progressively tighter standards.

• Truck and Bus Regulation: By 2023, California will have the cleanest, most efficient diesel fleet in the world with disadvantaged communities being the largest beneficiaries. This regulation targets emission reductions from the nearly one million existing trucks and buses operating in California and is the most important component of ARB's program to reduce emissions from diesel vehicles. These vehicles contribute substantially to violations of the ambient air quality standards for both fine particulate matter (PM2.5) and ozone. They also contribute to localized health risk associated with exposure to diesel particulate matter, a carcinogen, and to risk of premature death associated with PM2.5 in the air. To comply with the regulation, fleet owners must transition from older, higher emitting vehicles to newer, lower emitting vehicles through a mix of retrofits and vehicle turnover. ARB has made many efforts to raise awareness of this regulation using multiple innovative outreach mechanisms. ARB's multi-pronged approach involves a call center answering thousands of calls annually, a dedicated website receiving hundreds of thousands of hits, direct mailings to affected fleet owners, training classes and other in-person events for additional one-onone assistance, and special media campaigns focused on television and radio spots. All outreach and assistance activities are available in Spanish. These dedicated outreach activities are conducted to help fleet owners understand rule requirements, make informed decisions about compliance options, and fully utilize available funding opportunities to ensure the truck and bus regulation achieves the expected emission reductions to protect public health.

In 2013-2014, ARB enforcement conducted 11,247 inspections, closed 728 enforcement actions, and collected \$3,059,824 in penalties for violations of the Statewide Diesel Truck and Bus Programs. In addition, ARB partnered with U.S. EPA to target out of state fleets that were noncompliant with ARB's Truck and Bus Regulation. In 2015, the U.S. EPA settled an enforcement case with Estes Express Lines for violations of the California Truck and Bus Regulation, for failing to install particulate filters on 73 of its heavy-duty diesel trucks (15% of its California fleet) and for hiring noncompliant subhaulers and dispatching them to California.



School Bus and Diesel Emission Reduction Supplemental Environmental Project (SEP)

SEPs are environmentally beneficial projects that a violator voluntarily agrees to undertake during settlement of an enforcement action. The School Bus SEP provides funding for cleaning up diesel school buses in order to reduce direct exposure of school children to toxic and criteria pollution. The School Bus SEP was established in coordination with California Air Pollution Control Officers Association (CAPCOA) in 2011. It was amended in 2013 to also include an option to support non-profits to help clean up their diesel equipment. The San Joaquin Valley Air Pollution Control District administers the School Bus SEP on behalf of CAPCOA. In 2014 the School Bus SEP program generated \$1,506,391 in funding from 22 settled cases. The funds generated are used to provide less polluting school buses in neighborhoods throughout California including some communities identified as disadvantaged.

- 2012-2013: 41 school buses retrofitted statewide with a total grant award of \$322,101 in ARB funds.
- 2013-2014: 19 school buses retrofitted statewide with a total grant award of \$151,848 in ARB funds.

- Vehicle Complaint Program: ARB operates a web-based system for receiving Smoking and Idling Vehicle Complaints. All complaints received are screened and processed using the license plate information reported into the system. Staff identifies owners of the smoking vehicles and sends notices requesting that the vehicle be checked for proper engine operation. For complaints of excessive idling, information about the Commercial Idling Regulation is sent to the registered owner. Where appropriate, complaints are referred to the air districts or to ARB for follow-up. In 2014, ARB responded to and closed 8,303 Smoking Vehicle complaints and 204 Commercial and School Bus Idling complaints. Many times illegal idling occurs in communities that have been identified as environmental justice communities. ARB's Smoking and Idling Vehicle program serves to protect the health of the residents in these heavily impacted areas.
- Incentive funding for Fleet Owners: ARB has worked closely with local air districts to create State and local incentive funding opportunities for fleet owners to replace or retrofit their older, high polluting vehicles if they choose to achieve early or extra emission reductions. For example, over the last decade over \$120 million in Carl Moyer Program incentive grants have been spent on truck retrofit and replacement projects. Under State law air districts with a population of one million or greater must ensure at least one-half of Moyer and school bus grant funds are awarded to projects reducing emissions in communities with high exposure to air toxics, including communities of minority or low-income populations (H&SC §43023.5). On a statewide basis, 47 percent of Moyer Program funds have gone to applicants with addresses in defined disadvantaged communities. Another \$58 million in funding has been granted for trucks and buses using hybrid and zero emission technology through the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project. About 75 percent of Hybrid and Zero-Emission Truck and bus Voucher Incentive Project funding has provided benefits to disadvantaged communities, and about 45 percent has been spent in disadvantaged communities. In addition, the Truck Loan Assistance Program helps small-business fleet owners to secure financing to upgrade their fleets with newer trucks or with diesel exhaust retrofits. Over 80 percent of the loans have been issued for trucks that benefit disadvantaged communities.
- Incentive Funding in Agricultural Sector: In the last decade, over \$160 million in Carl Moyer incentive grants have been spent to replace or repower off-road, stationary, and portable equipment in the agricultural sector. This has reduced criteria pollutant emissions and toxic exposure of residents living in rural communities, many of which are low-income.
- "No-idling" signs: On June 23, 2015, a "No Idling" sign installation event was held in the City of Commerce. Through partnership and coordinated effort among ARB, the City of Commerce and the East Yard Communities Environmental Justice group, twenty "No Idling" signs were installed throughout the City of Commerce at locations identified during a "Truck Truthing Study" conducted by the East Yard Communities youth group. Over the last few years, ARB has partnered with a number of cities, ports and businesses and has installed over 200 such signs throughout California. ARB continues to work with cities to install "No Idling" signs with a priority given to environmental justice communities.

Responding to Community Concerns

It is ARB's policy to strengthen outreach and education efforts in all communities, especially lowincome and minority communities, so that all Californians can fully participate in ARB's public processes and share in the air quality benefits of the programs. Below are specific examples of ARB's accomplishments in reaching out to environmental justice communities in from 2013-2015.

- Dedicated Environmental Liaison Staff within Enforcement Division: ARB has five environmental justice liaisons from Enforcement Division to represent ARB on each IVAN task force as well as other environmental justice task forces throughout California.
- Office of the Ombudsman: The Ombudsman's office provides information about grants, rebates, loans, and other funding options to small business owners who have difficulty

meeting the ARB regulation requirements on their own. For example, the Office has provided information on the CalCAP PLACE Loans for small fleet truck owners, and recently, on clean vehicle incentives to callers who are referred by the Department Motor Vehicles through the ARB website. The Office of the Ombudsman also provides businesses, trade associations, and individual community members information regarding all aspects of the air quality regulatory process.

- Green Business Programs: The Ombudsman's office also supports small businesses in disadvantaged communities to become more sustainable by voluntarily reducing energy, water, waste, and taking other "green business" steps. These efforts paid off in 2015 with the establishment of the first CA Green Business Program in Fresno and the certification of its first small businesses verified through a third party. Funding to launch the effort was from CalEPA and the U.S. EPA. Collaboration between CalEPA, ARB, CA Green Business Network, Green Team San Joaquin/Stockton Chamber of Commerce, and the local chapter of the CA Black Chamber of Commerce contributed to the success. Green business practices can save money, protect the environment, and help small businesses continue serving their neighbors.
- Bilingual Resources: ARB hired a staff person in the Public Information Office to translate ARB documents and improve ARB's ability to communicate with California's Spanish speakers. ARB has dedicated multi-lingual phone hotlines (Punjabi and Spanish) to provide additional assistance to limited English speakers on the diesel regulations. ARB has also translated numerous factsheets into Spanish, established a twitter handle 'ARB en Español' with 182 followers, and produced two Spanish language videos and various infographics on carbon monoxide, the **Enhanced Fleet Modernization Program and** the Plus Up Program for easy understanding. Additionally, from 2013-2015 ARB issued 15 media advisories in Spanish. These advisories covered a wide range of topics from the Cool California City Challenge, carbon monoxide poisoning, enforcement activities on polluting trucks in East Los Angeles, and equipment donations to Baja California, Mexico.
- Air Quality Education Program: ARB's Air Quality Education Program is administered under the Office of the Ombudsman. In June 2015, the Air Quality Education Program sent 750 climate change educational pamphlets to three environmental justice organizations



Community Monitoring Networks

Rapid developments in technology have led to the production of small, low-cost ambient air pollution sensors. These new technologies, used by communities and individuals, have the potential to supplement current air quality monitoring networks and environmental justice studies. A community-based particulate matter monitoring sensor study is underway in the Imperial Valley to provide real-time air quality data to the community. ARB is supporting the PM sensor study by providing space and power for one of the study samplers and comparing that sensor's response to the reference monitors operating at its Calexico air monitoring station. This in field comparison provides quality assurance of the measurement process. ARB staff attended the community kick off meeting in Brawley in May 2015 and began hosting a sensor at its Calexico air monitoring station in June 2015.

throughout the state (Comite Civico del Valle, Valley Leap, and Central CA Environmental Justice Network). The Air Quality Education Program continues to provide educational materials to organizations that request them.

Air Monitoring

ARB maintains a statewide ambient monitoring network, as well as portable monitoring assets, to assess and help mitigate exposure to air pollutants in some of California's most disadvantaged communities. Below are some of the more significant air monitoring activities undertaken by ARB in from 2013-2015 in support of environmental justice initiatives.

- **Refinery Monitoring:** Through an initiative launched by the Governor's Office, ARB is working with local air districts, local emergency response agencies, industry, and community-based organizations to assess and improve air monitoring in the neighborhoods surrounding refineries, including making real-time air monitoring information available on an ARB refinery information website. In May 2015, ARB and local air districts jointly published an inventory of air monitoring assets and capabilities surrounding all the major refineries statewide. Findings, recommendations, and statewide guidance for improving refinery air monitoring and emergency preparedness are now being developed with ARB serving as the lead agency.
- **Pesticide Monitoring:** ARB conducts monitoring of the air quality impacts of agricultural pesticide applications pursuant to Food and Agricultural Code Section 14022(c). Most of this monitoring takes place in, or near, rural agricultural communities. Specifically, in 2014 and 215 ARB monitored, and will continue to monitor, for the agricultural fumigants methyl bromide, 1,3-dichloropropene, and chloropicrin in rural portions of Santa Cruz, Ventura, and Santa Barbara counties. In addition, ARB has conducted air monitoring during and after application of agricultural pesticides in rural portions of Imperial County (chlorpyrifos; October 2014), Fresno County (methyl isothiocyanate; March 2015), and Stanislaus County (chlorpyrifos; July 2015).

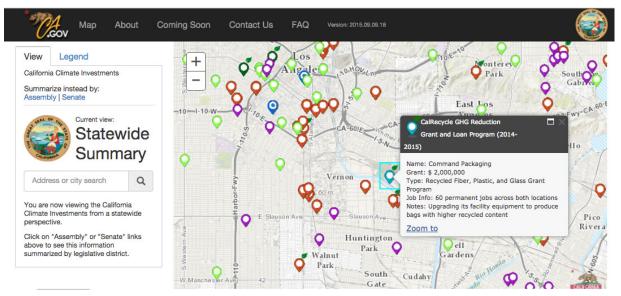
Climate Change

With the enactment of Assembly Bill 32 (California Global Warming Solutions Act of 2006) and the Governor's greenhouse gas reduction targets for 2030, ARB was tasked with new responsibilities and has applied its existing environmental justice policies to these new efforts. ARB has made a continuing focus on disadvantaged communities an essential underpinning of efforts to fight climate change. AB 32, for example, includes the determination of impacts on these communities as an essential statutory consideration for every climate policy, regulation, or program, implemented to reduce greenhouse gases. ARB is committed to ensuring progress on environmental justice while meeting its climate change goals. In addition, Cap-and-Trade auction proceeds are providing transformative investments in disadvantaged communities and providing multiple benefits in these communities. Below is a summary of ARB's climate change efforts both in and benefitting disadvantaged communities from 2013-2015.

• Environmental Justice Advisory Committee: Pursuant to AB 32, ARB convened an Environmental Justice Advisory Committee (EJAC) to advise the Board in developing the scoping plan which laid out the State's strategy for reducing greenhouse gas emissions and meeting the requirements established under AB 32. ARB convened the EJAC in January 2007 to advise it on the development of California's Initial Climate Change Scoping Plan (Scoping Plan). AB 32 requires that the Scoping Plan be updated at least once every five years. In 2013, the EJAC was reconvened by ARB and met four times from June 2013 to April 2014 to discuss the development of and provide input on the First Scoping Plan Update. The EJAC developed "Final Recommendations on the Proposed AB 32 Scoping Plan" which were included as Appendix E in the First Scoping Plan Update released to the public on May 15, 2014. The EJAC provided recommendations for each key economic sector included in the First Scoping Plan Update and overarching environmental justice policy. There are a total of 13 committee members, of which four were recently appointed in 2015. The committee with be advising the Board on developing the 2030 Target Scoping Plan Update. California Climate Investments (Cap-and-Trade Auction Proceeds): Proceeds from the Capand-Trade auctions are deposited in the Greenhouse Gas Reduction Fund (GGRF), and provide an opportunity for the State to invest in actions that reduce greenhouse gas emissions with an emphasis on the most disadvantaged communities. These investments are financing programs and projects that further the objectives of AB 32 by reducing greenhouse gas emissions in the State; delivering benefits to disadvantaged communities; and maximizing, where feasible, economic, health, and environmental co-benefits. The suite of implementing legislation establishing the GGRF also includes Senate Bill 535 (de León, Chapter 830, Statutes of 2012), which requires at least 25 percent of GGRF monies go to greenhouse gas emission reduction projects that benefit disadvantaged communities, and that at least 10 percent of these funds go to projects located within a disadvantaged community. As of December 2015, 51 percent (\$469 million) of the \$912 million dollars implementing California Climate Investments are funding projects that provide benefits to disadvantaged communities; 39 percent (\$356 million) of the \$912 million are funding projects located within disadvantaged communities. In March 2015 and March 2016, ARB and the Department of Finance submitted an Annual Reports to the Legislature detailing the implementation of climate investments, including projects benefitting disadvantaged communities.

To guide the investment of Cap-and-Trade auction proceeds, the Department of Finance, in consultation with the ARB and other State agencies (Administration), is required to submit a triennial Investment Plan to the Legislature which identifies priority investments that will help California achieve its greenhouse gas reduction goals while realizing additional health, economic, and environmental benefits. The Investment Plan identifies near-term and long-term greenhouse gas emission reduction goals and targets, analyzes gaps in current State funding for meeting greenhouse gas reduction goals, and identifies priority investments that facilitate greenhouse gas reductions. The first Investment Plan was submitted to the Legislature in March 2013. In 2015, the Administration began the process of developing the Second Investment Plan. The Second Investment Plan identifies and prioritizes GHG reduction concepts, with a focus on projects and programs that could also benefit disadvantaged communities and provide other co-benefits. The Administration held a series of 10 workshops between August 2015 and December 2015 on investment concepts and presented a draft of the Second Investment Plan to the ARB Board at a public hearing in December 2015. The Final Second Investment Plan was submitted to the Legislature in January 2016.

A Climate Investment Map has also been launched that shows funded California Climate Investments supported by the GGRF (as well as other agencies funds) so that an individual can search what projects are being done in their community.



- California Climate Investments Guidance for Investments to Benefit Disadvantaged Communities: The development of tools to implement SB 535 is a multi-agency effort among CalEPA, the Office of Environmental Health Hazard Assessment, and ARB. ARB provided guidance to agencies appropriated with GGRF monies on what is considered a benefit to a disadvantaged community and how to maximize those benefits as part of its statutory obligations under SB 535. In fall 2014, ARB released the Interim Guidance for Investments to Benefit Disadvantaged Communities (Interim Guidance), which provides requirements and recommendations on how greenhouse gas emissions reduction investments can maximize benefits to disadvantaged communities, and establishes clear criteria for determining whether projects provide a direct, meaningful, and assured benefit to those communities. This Interim Guidance was developed by ARB staff and was informed by stakeholder input received at five public meetings throughout the State. Over 400 participants attended workshops and over 140 public comments were submitted. In June of 2015, ARB released the draft document Funding Guidelines for Agencies that Administer California Climate Investments (Funding Guidelines) for public discussion. The Funding Guidelines include updates to the Interim Guidance on investments in disadvantaged communities. During the summer of 2015 ARB held a series of 9 workshops and 2 webcasts in order to engage the public on the Funding Guidelines and to garner input and commentary from environmental justice advocates and other stakeholders throughout the State. The Funding Guidelines were presented to the ARB Board for consideration and approved in September 2015.
- Low Carbon Transportation Disadvantaged Communities Light and Heavy Duty Projects: Low Carbon Transportation investments, funded by Cap-and-Trade auction proceeds, provide greenhouse gas reductions and disadvantaged community benefits by increasing investments in technology advancing projects. The 2014-2015 State Budget appropriated \$200 million to ARB for Low Carbon Transportation projects to reduce greenhouse gas emissions, with at least 50 percent of the investments to benefit disadvantaged communities. These investments are being used to expand clean car and truck incentives through the Clean Vehicle Rebate Project and the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project. ARB has also launched several new light-duty pilot projects to benefit disadvantaged communities, zero-emission truck and bus pilot deployment projects, and heavy-duty demonstration projects to accelerate the introduction of advanced emission reduction technologies for the freight sector. The Governor's proposed 2015-2016 State Budget continues to authorize this funding and grows these investments.
- Cap-and-Trade Adaptive Management Plan: As part of the Cap-and-Trade Regulation, the Board approved an Adaptive Management Plan (Plan) to track unintended consequences of the Cap-and-Trade Regulation. The Plan requires ARB to develop systems to track and respond to: (1) potential adverse localized air quality impacts that might be caused by the Cap-and-Trade Regulation, and (2) potential adverse impacts that might be caused by the Compliance Offset Protocol U.S. Forest Projects. ARB is working with the local air districts to determine the most effective path forward for gathering and evaluating permit data, greenhouse gas data, and other information needed for tracking potential localized impacts. The effort will involve a transparent process to collect, review, and evaluate data to determine if any potential adverse localized air quality impacts might have occurred as result of implementing Cap-and-Trade. If a potential impact is identified, ARB is committed to developing appropriate responses through a public process, including consideration and approval by the Board as necessary. ARB specifically reached out to representatives from environmental justice organizations and other stakeholders to discuss staff's proposal prior to holding four regional public meetings in fall of 2015. An update on the Cap-and-Trade Adaptive Management Plan was also presented to the Board in the fall of 2015. As part of the annual analysis process, ARB will evaluate reported emissions data and work with experts to determine if any potential adverse localized air quality impacts have occurred. ARB will also annually provide an update to the Board with the results of the analysis.

Research

ARB maintains an active research program in the area of environmental justice and community health. ARB-funded research that led to the first environmental justice maps in the State with the development of the Environmental Justice Screening Method (EJSM), and ARB continues to fund environmental justice mapping by updating and expanding the EJSM. ARB also has a variety of research projects underway to support California's efforts to reduce greenhouse gas emissions through transit-oriented development while avoiding unintended burdens on disadvantaged communities. Furthermore, ARB has research projects focused on analyzing how to improve the equity and benefits of zero emission vehicle mobility options in disadvantaged communities.

- Environmental Justice Screening Method (EJSM): The EJSM is a Geographic Information Systems (GIS) method that identifies EJ communities by mapping social and health vulnerability, proximity to hazards, and exposure to environmental toxics. It was developed by Manuel Pastor, Rachel Morello-Frosch, and Jim Sadd under a research contract from ARB. ARB continues to support the development of the EJSM with a contract to make several improvements over the previous version including: 1) completing the statewide analysis, 2) creating a regional analysis, 3) updating the socioeconomic and environmental data, and 4) adding a climate change vulnerability map layer. The researchers will also change the structure of the EJSM to make it more accessible to all GIS users by operating it wholly within ArcGIS. Final results are expected in early 2016.
- **Transit Oriented Development and Potential Displacement**: This project will evaluate the potential for displacement of lower-income residents as a result of compact, transit-oriented development investment. This research will also investigate possible solutions if the results suggest they are needed. It will also develop a set of tools to examine the displacement around transit-orientated development in the planning process. The research is on-going and results are expected in 2016.
- Evaluation of Transit-Oriented Affordable Housing on Travel Demand: The project will evaluate the travel demand, economic, health and well-being benefits to residents of building affordable housing in transit-oriented development areas. It will provide data and information to city planning and housing departments on efficacy of transit-oriented affordable housing as a sustainable community strategy and combine quantitative travel behavior analysis with qualitative research exploring health and other impacts to residents. This project was approved in 2015, and results are expected in 2018.
- Strategies to Reduce Near-Roadway Air Pollution Exposure: This project analyzes ARBsponsored research and peer reviewed literature to identify strategies that are shown to reduce pollutant emissions or concentrations or facilitate pollutant dispersion and air flow, and thereby mitigate near roadway pollution exposure. The project is being pursued in light of existing and planned infill development near roadways as a result of high property values and state policies to reduce emissions from driving via compact development. Key outcomes of this project include: (1) inclusion of research supported strategies to reduce near roadway pollution exposure in the Office of Planning and Research's draft General Plan Guidelines (Oct. 2015) and (2) development of an ARB-published Technical Advisory that will contain details about research that supports ARB recommended strategies and provide additional context that should be considered as local governments weigh different mitigation options (expected early 2016).
- Examining Factors that Influence Zero Emission Vehicle (ZEV) Sales in California: The project will analyze the early ZEV market and ZEV policies based on 2011-2014 ZEV registration data coupled to census tracts, gasoline and electricity prices, incentives, and other parameters. Project will assess costs effectiveness and equity of various ZEV purchase incentives based on income levels and vehicle price cap. Results from this project are expected in 2016.

- Designing Light-Duty Vehicle Incentives for Low and Moderate Income Households: This project will evaluate the costs and benefits of various options for modifying the financial incentives provided by ARB to accelerate advanced technology adoption to provide air quality, climate, and social equity benefits. The project will evaluate: 1) how incentives interact with potential zero emission vehicle advancements, 2) how varying forms and amounts of incentives for vehicle purchases most effectively encourage adoption of cleanest vehicle technologies, 3) the relative efficacy of various forms of financial incentives, 4) the strategies that could more effectively incentivize lower income households to scrap functional, high-emitting vehicles in favor of lower emitting vehicles, or that could more effectively encourage those households to use clean vehicles through ride- or car-sharing, and 5) identify self-sustaining market indicators in the electric vehicle market. This project was approved in 2015, and results are expected in 2018.
- Plug-In Electric Vehicles (PEV) in the Secondary Market and their Implications for Demand, Durability, and Emissions: The project will evaluate the health of the used PEV market in California through survey work and an econometric analysis. Specifically, this project will 1) analyze the distribution of used PEVs purchased across all regions and socioeconomic strata, 2) identify barriers in the policy and retail system that might limit an equitable and successful used PEV market, 3) understand how the used PEV market will impact the overall market ramp-up for PEVs, and 4) inform efforts to estimate potential longer-term emissions benefits of PEVs as an outcome of the used PEV market and ownership. Results expected in 2018.

Goals

- Scoping Plan Update: In April 2015, Governor Edmund G. Brown Jr. issued an Executive Order establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030. The Governor's Executive Order directs ARB to update the Climate Change Scoping Plan to reflect this new target. In response to the Governor's Executive Order, ARB has started the process to update the Scoping Plan for Board consideration in late 2016. ARB has resumed EJAC meetings in 2016 as it develops the Scoping Plan to meet the Governor's 2030 target.
- Assistance to Disadvantaged Communities: ARB will dedicate resources to provide technical assistance and outreach to disadvantaged communities to ensure that at least 50 percent of the Low Carbon Transportation funds benefit these communities. ARB staff will also monitor projects to ensure that at least 10 percent of the Low Carbon Transportation funds are invested in disadvantaged communities.

Sustainable Freight Action Plan: On July 17, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-32-15 that directs the Secretaries of Transportation, Environmental Protection, and Natural Resources to lead other relevant State departments including the ARB, the California Department of Transportation, the California Energy Commission, and the Governor's Office of Business and Economic Development to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system. The integrated California Sustainable Freight Action Plan will also identify State policies, programs, and investments to achieve these goals. The State partners, including ARB staff, will continue to host a series of public meetings and regional workshops throughout northern, central, and southern California to solicit public input on the development of the Action Plan. Community advocates and environmental organizations continue to actively engage and help drive the sustainable freight effort, primarily through the umbrella California Cleaner Freight Coalition that has been working with ARB for over two years. The State partners anticipate releasing the draft Action Plan in spring of 2016 for public review and comment, with the final plan due July 2016.

Department of Pesticide Regulation

The Department of Pesticide Regulation (DPR) works with government agencies, communities, advocacy groups, regulated industries, and other parties to ensure environmental justice. DPR works to incorporate EJ into programs, goals, and activities, including:

- Ensuring DPR's programs, policies, and activities focus on those communities most impacted by pesticides. Ensuring that outreach materials are made available to the public;
- Ensuring that DPR provides outreach to environmental justice communities by providing them with accessible and meaningful opportunities to learn about DPR's programs and to provide input; and
- Maintaining transparency and effectiveness in public participation through the use of advisory committees, workshops, and other forums.

DPR has taken steps to ensure meaningful public participation, to strengthen field enforcement, and make its decision-making more transparent and understandable. Significant strides have also been taken to reduce health and environmental risk and conduct outreach to workers and others that may be impacted by pesticide use. Below is a summary of the environmental justice challenges and accomplishments DPR faced from 2013-2015.

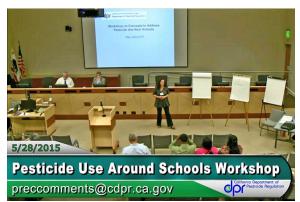
Challenges

- Outreach to rural communities is often accomplished face-to-face, at the local level. Scheduling staff resources appropriately and providing event support is a challenge, but has helped us to reach out to California's rural communities.
- DPR recognizes the need for more user-friendly graphic formats and language accessible brochures. DPR is in the process of converting many of its outreach materials to mobile-friendly formats.
- The need for safety information in Hmong language for farmers and farmworkers continues to increase and staff is working to build on its English-Hmong directory of "commonly used terms."

Accomplishments

Schools

 School Pesticide Workshops: Beginning in May 2015, DPR held statewide workshops to seek public input on agricultural pesticides used around schools. Many schools have been built on prime agricultural land next to farm operations. Increasingly, teachers, parents and the general public want to know what chemicals are being applied around them. Input was solicited regarding "improving communication through notification to schools of intended applications of certain pesticides," and "reducing the risk of exposure by requiring additional restrictions on certain pesticides." Workshops were held in



Sacramento, Salinas, Ventura, Oxnard, Lamont and Coachella. DPR will use the input from the workshops to develop regulations that will help mitigate the challenges created by schools being placed close to working farms.

• Healthy Schools Act Amendments: Reducing pesticides in schools has been part of DPR's mission for the past 10 years. To expand on current training opportunities, DPR created the Integrated Pest Management for Schools video series, which can be watched on the DPR

YouTube channel in English and Spanish. Recent amendments to the Healthy Schools Act prompted DPR to expand outreach and training efforts to promote the use of integrated pest management at California public schools and child care centers. DPR created an easy-to-use template that schools and child care centers can use to develop an integrated pest management (IPM) plan. A pesticide use reporting form was reformatted so that when completed by schools and child care centers, they will meet the recordkeeping and reporting requirements of the Healthy Schools Act. In 2016, DPR launched new online training, which

are free for pest management professionals, school and child care center staff, and anyone else who may use a pesticide at schools and child care centers.

Fumigants

• Enhanced Pesticide Protection for Chloropicrin: In January 2015, DPR announced new rules for the use of the pesticide chloropicrin, providing enhanced protections for people who work and live near fields treated with the fumigant. The fumigant is used in many counties including Ventura, Monterey, Santa Barbara, Santa Cruz, San Joaquin, and Fresno. Overall, the new restrictions are more protective than those at the federal level which went into effect in 2012. DPR devised these restrictions after extensive public outreach and comment in 2013. The new measures include larger buffer zones, minimum buffer zones, limiting acreage, notification and notice of intent requirements. DPR will require that growers provide the local county agricultural commissioner details of the upcoming fumigation at least 48 hours before the scheduled application.

Pesticide Safety

- Mixteco, Zapoteco language outreach videos: Working with U.S. EPA Region 9, DPR translated 5 Spanish outreach videos into indigenous languages. The videos are being distributed in DVD format and are available for download on the DPR YouTube channel. The videos are also being used in training workshops with DPR and U.S. EPA Region 9.
- Toll-Free Pest Line: Outreach wallet cards were distributed to farmworkers with information for contacting the County Agricultural Commissioner, 1-877-378-5463 (1-87-PestLine) and Poison Control, 1-800-222-1222. These toll-free lines are in wide distribution and included on fact sheets, community guides, and DPR's website. Between May 2013 and May 2015, 10,000 Spanish cards and approximately 3,000 English cards were requested and mailed out from DPR Headquarters. During this time, an



Fieldworker Instructor Training Workshops

In 2014. DPR contracted with the University of California Statewide Integrated Pest Management program to conduct pesticide safety training for trainers of fieldworkers. Recently, the UC IPM program re-established the Pesticide Safety Education Program. The contract focuses on two proposed program areas designed to further enhance this mission: continuing education programs and worker health and safety modules for fieldworker trainers. The goals of the proposed programs are to promote a reduction in off-site movement of pesticides, reduce the risk of pesticide exposure to workers (pesticide handlers and fieldworkers), and promote improved compliance with pesticide laws and regulations. 56 trainers attended workshops in 2015. In 2016, two additional workshops will be held in Monterey County.

additional 8,000 Spanish cards were handed out by staff at outreach events statewide.

- Spanish Radio Ads: In 2013, DPR produced and broadcast Spanish radio ads to publicize the PestLine and Poison Control hotline. DPR contracted with Spanish language radio stations providing the best area coverage in the counties of Monterey, San Luis Obispo, Santa Barbara, Santa Cruz, Siskiyou and Ventura. In all, 15 stations broadcast the Spanish PSA's for a total of 3,300 broadcasts. In August and September 2014, DPR contracted with 12 stations in Imperial, Riverside, San Diego, Los Angeles, Orange and San Bernardino Counties to air a total of 1,380 PSA broadcasts. The PSA's played during morning and evening peak hours, and some stations included news media interviews with DPR outreach staff.
- Worker Health and Safety Outreach: Each year, DPR staff takes part in community meetings, health conferences, and other events to educate and promote pesticide safety for workers and their families. Staff also promotes pesticide safety in guest appearances on Spanish-language media outlets in the Central Valley, Central Coast, Bay Area, Sacramento Valley, and Imperial Valley. In 2013 -2015, staff participated in over 200 outreach events focused on workers and families.

Grants

• Alliance Grants: DPR awarded approximately \$1.08 million for six Alliance Grant projects from 2012-2014. Some of the projects gathered data and conducted research to better serve EJ communities, and they helped build a good knowledge base for sound integrated pest management decision making in underserved communities. DPR continues to work with the following grants projects: *Field Edge Plantings for Pesticide Reduction and Enhanced Biodiversity on Farmlands, Facilitation of the Anaerobic Soil Disinfestation Pre-Plant Soil Treatment, Developing an IPM Program to Reduce the Exposure to Pesticides for Young*

Children in Family Child Care Homes in California, and IPM Focus on Multi-Unit Housing.

- **Research Grants to Reduce Risks Associated** with Pesticide Exposure: The 2012-13 California State budget authorized DPR's new Pest Management Research Grants Program. This program provided \$1 million in 2012-2013 and 2013-2014, and \$500,000 annually in subsequent years, for research grants that help develop practices that reduce the use of high-risk pesticides and the risk of unanticipated effects on public health and the environment. Priority research topics include field agricultural fumigants and organophosphate insecticides. Grant proposals must contribute to an integrated pest management system, reducing risks associated with the use of pesticides. The Legislature augmented the Research Grants Program budget with \$600,000 annually for three years beginning in 2014-2015, and they directed that the funds be spent on developing alternatives to agricultural field fumigants. The 2014-2015 grant projects included:
 - "Optimizing Solarization-Based Technologies as Sustainable Alternatives to Soil Fumigation" UC Regents Division of Agriculture and Natural Resources (\$299,992).



Spanish Television Ads

In fall 2013, DPR contracted with Spanish TV network Vme (public television) to broadcast 5 Spanishlanguage pesticide safety videos. The videos aired in approximately 16 counties in northern California, and publicized the toll-free PestLine and Poison Control hotline. In 2015, the ads were broadcast on Valley Public Television, the Spanish-language Fresno Vme affiliate.

- "Development of a Mobile Steam Applicator to Replace Fumigants for Strawberry" UC Davis (\$294,612).
- "Improving Efficacy of Biologically Mediated Soilborne Disease Management in Strawberry by the Use of Reduced Rate Fumigations" The California Strawberry Commission (\$298,472).
- "Determining the Impacts of Plant-Parasitic Nematodes and Soil Fumigation on Pistachio Growth" UC Cooperative Extension, Merced (\$74,384).
- "Managing Nematode Parasitism and Prunus Replant Disease with Spot Fumigation and Rootstocks" UC Cooperative Extension, Merced (\$108,433).

Compliance and Enforcement

- Pesticide Residue Monitoring: In 2013, DPR discovered cactus pads, or "nopales," imported from Mexico, that were tainted with an organophosphate-based pesticide. This had the potential to sicken people. DPR also worked diligently to remove the entire product from store shelves and distribution centers. In addition, DPR asked the U.S. Food and Drug Administration to inspect produce at the borders and points of entry to stop shipments into California. In May 2014, DPR and CalEPA Assistant Secretary for Border Affairs met with Max Cervantes of Secretaria de Agricultura, Ganaderia, Desarrollo Rural, Pesca Y Alimentacion and other health department officials from Mexico to discuss food safety issues related to pesticide residues. In October 2014, DPR made a presentation on the Pesticide Residue Monitoring Program to approximately 160 Mexican fruit and vegetable growers at workshops in Mexicali and Ensenada, Mexico.
- **Spray Safe**: In 2013-2015, DPR participated with several Spray Safe events for farmworkers, applicators, pest control advisors, growers CAC staff and others. Spray Safe is a forum that brings together stakeholders, with the goal of increasing communication and safety regarding pesticides. DPR Enforcement staff attended events in Modesto, Yuba City, Bakersfield, Stockton, Ventura, and Santa Barbara.
- Breaking Barriers: Since 2009, DPR's Enforcement and Worker Health and Safety branches, in conjunction with U.S. EPA Region 9, have provided one-day "Breaking Barriers" training sessions in various locations throughout California to assist non-Spanish speaking inspectors who work with Spanish speaking field workers and applicators. The course is targeted towards County Agricultural Commissioner inspectors currently conducting fieldworker safety inspections and agricultural pesticide monitoring inspections (such as pesticide use, field fumigation, and commodity fumigation).

Environmental Monitoring

 Air Monitoring: DPR established an air monitoring network in February 2011 in Kern, Monterey and San Joaquin counties to expand its knowledge of the potential health risks of long-term exposure to pesticides. The network is the first of its kind in the nation. The latest results of 32 pesticide and five breakdown products monitored in 2014 show that 23 were detected in at least one sample, but only one had results that require further consideration. The data from the Kern site showed that for the four years of monitoring, the cancer-causing pesticide 1,3-dichloropropene was detected at a level that, if continued for 70 years, would



exceed DPR's regulatory target for cancer risk. DPR is conducting more detailed evaluations of 1,3-dichloropropene, and has also taken further actions to reduce its exposures.

Goals

Preventing Exposure

- **Chlorpyrifos:** In 2015, DPR designated chlorpyrifos, when used in the production of an agricultural commodity, a California restricted material. Chlorpyrifos belongs to a class of chemicals known as organophosphates that can adversely affect the nervous system and has been linked to long-term neurological effects. By designating this chemical as a California restricted material, it can only be used under a permit issued by the County Agricultural Commissioner who can impose additional restrictions as may be necessary to protect public health or the environment. Providing this effective mechanism to further regulate the use of this chemical will provide a benefit to public health, worker safety, and the environment by reducing the potential for unintended exposures.
- **Reducing Pesticides Around Schools:** Beginning in May 2015, DPR held statewide workshops to seek public input on agricultural pesticides used around schools. DPR will use the input from the workshops to develop regulations that will help mitigate the challenges created by schools being placed close to working farms.

Nonfumigants

• Volatile Organic Compounds Regulations in the San Joaquin Valley: Following the earlier adoption of regulations restricting the use of fumigant pesticides, these regulations will restrict the use of certain nonfumigants in the San Joaquin Valley ozone nonattainment area. The regulations will reduce volatile organic compound (VOC) emissions from pesticides to meet the state's obligation under the state implementation plan to achieve and maintain federal ambient air quality standards for ozone. The San Joaquin Valley has been identified by various reports as an area of environmental justice concern. Based on regulations adopted in 2013, DPR implemented additional restrictions to reduce emissions from nonfumigant pesticides. These restrictions prohibit certain uses of high-VOC products containing abamectin, chlorpyrifos, gibberellins, or oxyfluorfen when used in the San Joaquin Valley ozone nonattainment area. The prohibitions on the high-VOC pesticides were in effect May 1, 2015 through October 31, 2015, and will continue May through October 2016.

Research

• Alternatives to Fumigants: DPR will award additional grants to support research into alternatives to fumigants, and will continue its support for the Strawberry Research Partnership with the California Strawberry Commission.

Outreach

- Worker Health and Farmworker and Promotora Outreach Events: DPR will provide outreach materials and staff booths at Promotora and farm worker health and safety events in farmworker communities around the state.
- **Consumer and Bilingual Outreach:** DPR will be developing outreach materials for restaurant workers with safety information on using antimicrobial cleaning solutions. DPR continues to publish bilingual brochures, video, and website information to reach underserved constituents.

Department of Resources Recycling and Recovery

The Department of Resources Recycling and Recovery (CalRecycle) has remained committed to its environmental justice policy, which directs the Department to act in a manner that ensures the fair treatment of people of all races, cultures and income levels; to reach out to California's diverse communities and include their input in policy and decision-making; and to reduce or eliminate any disproportionate impacts of pollution identified. Below is a summary of the environmental justice challenges and accomplishments from 2013-2015.

Challenges

- Addressing environmental justice requires a better understanding of the issues. CalRecycle is working, internally and externally, to provide information and training about environmental justice.
- Creating a new environmental justice program at CalRecycle is both a challenge and an opportunity. The ability to create a program is inspiring and allows for new work at CalRecycle and in communities.
- As CalRecycle expands infrastructure, due to mandatory commercial organics recycling and possible tipping fee changes, CalRecycle will be careful not to adversely impact disadvantaged communities. CalRecycle wants to ensure planning strategically regarding new or expanded facilities in all communities. CalRecycle is cognizant of working proactively and teasing out the net benefits to communities when siting facilities.

Accomplishments

Education

• Education and the Environment Initiative (EEI): Teacher demand continues to rise for California's EEI – a unique curriculum designed to increase environmental literacy in K-12 students. Created by CalEPA in partnership with the California Department of Education and the Natural Resources Agency, the EEI Curriculum is approved by the State Board of Education and supports the transition to the new Common Core and Next Generation Science Standards. Through public outreach, teacher training, and public-private partnerships, CalRecycle is actively promoting EEI Curriculum implementation and providing free hardcopies to teachers across a diverse set of communities to ensure California students understand their deep connection to the environment – globally and in their own backyards - including the implications of our choices on the air we breathe, the water we drink, and the food we eat. To date, the EEI Curriculum is being taught in more than half of California school districts, including numerous environmental justice communities. Seven EEI units directly address the concept of environmental justice, and all of the units challenge students to think critically about the complex relationship between economic and consumption choices and the health and stability of environmental resources. Ultimately, the EEI Curriculum, and its associated environmental principles, will ensure future Californians are informed decision makers who are well prepared to confront the environmental and economic challenges of the 21st century.

Staffing

• Environmental Justice Program Manager: CalRecycle hired its first Environmental Justice Program Manager in September 2014. This manager is tasked with helping CalRecycle meet its environmental justice goals, which include building environmental justice into CalRecycle program activities and policy decisions; expanding awareness and understanding of CalRecycle and environmental justice for Californians; and enhancing collaboration within CalRecycle, with CalEPA and its BDOs, and with community organizations.

Cleanup and Abatement Programs

- Cleanups and Remediation: CalRecycle's Solid Waste Disposal and Codisposal Site Cleanup Program directly addresses the impacts of solid waste disposal sites needing remediation throughout California where responsible parties are unavailable, unable, or unwilling to provide a timely cleanup. In addition, CalRecycle's Closed, Illegal, and Abandoned Disposal Sites Program helps solid waste local enforcement agencies investigate and enforce state minimum standards at Closed, Illegal, and Abandoned disposal sites throughout California. Recent noteworthy projects in impacted communities include:
 - Completion of the placement of a \$1.8 million remediation of Cactus Road Disposal Site in eastern San Diego (Summer 2014).
 - Completion of the cleanup of abandoned and derelict vessels in the Oakland Estuary in cooperation with the U.S. EPA and the U.S. Coast Guard at a cost of \$1.9 million (Summer 2014).
 - Completion of the \$7.3 million disaster debris removal project for the City of Weed after the Boles Fire, as authorized by a Governor's Emergency Order (Fall 2014).
 - Completion of the \$291,000 remediation of the Waring's Dump in south Sacramento (Fall 2014).
 - A \$110,000 partial grant to remediate the Mira Loma Disposal Site in the Jurupa Valley in Riverside County (March 2015).
 - A \$750,000 partial grant to Imperial County to remediate the Cruickshank Road Disposal Site in El Centro (March 2015).
 - Technical support and guidance for enforcement actions taken by the Los Angeles County LEA at the Gage Avenue Dump in Commerce to correct violations of state minimum standards for site cover, grading, drainage, and site maintenance (Nov 2014).
 - Sampling and analysis field support for the Imperial County LEA to assess clean-closure conditions at the Ed Mealy Disposal Site in Imperial (Summer 2014).
 - Technical Support to Riverside County LEA to investigate and develop a remedial scope of work for consolidating and capping the Mira Loma Burn Dump in Norco (Spring 2014).
 - Field investigation support to the Solano County LEA for a geophysical survey of the former City of Dixon Landfill in Dixon (Fall 2014).
- Grants to California Native American Tribes: Over the past two years, CalRecycle awarded almost \$185,000 in grant funding to California Native American Tribes:
 - CalRecycle's Farm and Ranch Solid Waste Cleanup and Abatement Program awarded \$84,000 to the Big Valley Band of Pomo Indians, the Stewarts Point Rancheria, and the Federated Indians of Graton Rancheria.
 - The Yurok Tribe, Pala Band of Mission Indians, and Big Valley Band of Pomo Indians were collectively awarded \$60,000 for Local Government Waste Tire Amnesty Programs.



Waste Tire Stabilization and Abatement Program

This program addresses the impacts of illegal waste tire disposal sites needing cleanup throughout California. The program completed the \$89,000 remediation of the Gibson Waste Tire Site in Fresno (Fall 2014). • The Yurok Indian Housing Authority and Table Mountain Rancheria were collectively awarded \$40,000 from CalRecycle's Tire-Derived Product Grant Program.

CalEnviroScreen

• **Training for CalRecycle Staff**: Two CalEnviroScreen training sessions were hosted for CalRecycle executives, management, and staff. In the first session, CalRecycle and the Office of Environmental Health Hazard Assessment provided an overview of CalEnviroscreen 2.0 and its capacity as a tool. For the second session, CalRecycle and CalEPA presented additional instruction on how to use the tool. Participants discussed how to use CalEnviroScreen and CalRecycle maps for future projects and training opportunities. Approximately 40 CalRecycle employees attended one or both sessions.

Compliance and Enforcement

- **Permits**: CalRecycle's Solid Waste Facility Permit concurrence process includes CalRecycle staff participation in local hearings on proposed permits as well as a detailed analysis by staff of the environmental justice concerns expressed by local citizens as part of each California Environmental Quality Act and local permit review and approval process. These findings are analyzed as part of CalRecycle's permit decision process.
- Waste Tire Hauler Program: CalRecycle's waste tire enforcement program focuses on the proper management of the 41 million waste tires that are generated annually in California. The goal is to ensure that these waste tires are transported, stored, and recycled or disposed in compliance with the law to protect public health and safety and the environment. Illegal dumping or other mismanagement of waste tires often impacts California's poorer communities, who already are disproportionally affected by other negative environmental impacts and lack the resources and political clout to address them. The waste tire hauler registration and compliance program is the cornerstone of this effort, as California's 1,400-plus registered waste tire haulers represent the vital link between those who generate waste tires and the facilities that ultimately manage them.

Hauler compliance staff conducted a series of nine educational outreach workshops, including five in Spanish, for waste tire haulers in Southern California and the border area as part of CalRecycle's focus of compliance through education. Two of these workshops, coordinated with the Mexico Used Tire Retreaders Association, focused on Mexican waste tire haulers who regularly travel to and from California hauling used and waste tires to Mexico. These workshops provide an invaluable opportunity to educate haulers on the waste tire regulatory requirements and often yield tips on illegal waste tire haulers for enforcement follow-up. Also during this period, CalRecycle, in partnership with the California Highway Patrol, conducted eight waste tire hauler compliance checkpoints at strategic locations in Southern California to identify and interdict illegal waste tire hauling. These checkpoints also provide an opportunity for staff to conduct further educational outreach to the hauler community.

- **Illegal Dumping:** The Illegal Dumping Enforcement Task Force formed in 2006 was reformed into the Illegal Dumping Technical Advisory Committee (IDTAC) in December 2010. The IDTAC consists of members from local governments, state agencies, and nongovernmental organizations. The IDTAC met in March 2014 and February 2015. Task force activities included:
 - Continued assistance to CalRecycle in updating the Illegal Dumping Toolbox on the CalRecycle website. A new section on Solid Waste Management in Homeless Encampments was added in September 2014. IDTAC members also reached out to cities and counties and offered training on solid waste issues at homeless encampments.
 - Continued work on managing unregulated waste haulers. The IDTAC is forming a focus group to review the issues and impacts associated with unregulated haulers and develop recommendations for future actions.

- California became the third state to introduce an industry-run statewide mattress recycling program to promote proper end-of-use management and increase recovery of valuable resources. The passage of the California Used Mattress Recovery and Recycling Act aims to reduce illegal dumping, increase recycling, and substantially reduce public agency costs for the end-of-use management of used mattresses. CalRecycle supported the implementation of the Act by certifying the Mattress Recycling Council as a mattress recycling organization and by approving the adoption and delivery of the proposed regulations to the Office of Administrative Law in May 2015.
- Fair Treatment Certification Requirement: CalRecycle requires all grantees and contractors to certify that they conduct their programs, policies, and activities in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority and low-income populations.

Goals

Environmental Justice Strategic Plan

While CalRecycle has generally understood and applied environmental justice principles in its work, the Department has not adopted a formal environmental justice program. The Department hired an Environmental Justice Program Manager in September 2014 and finalized its Environmental Justice Principles in July 2015. This Strategic Plan (Plan) is the next logical step in more fully integrating and applying environmental justice within CalRecycle.

The Plan is intended for CalRecycle's two critical interest groups. For the Department's stakeholders and community members, the Plan, when implemented, will yield broader awareness of CalRecycle's programs and services in addition to widening opportunities for participation in the decision-making process. For staff and managers, the Plan will offer more information about, and tools for, implementing environmental justice. The Plan will complement, inform, and be informed by CalRecycle's strategic objectives, and is intended to:

- Build environmental justice into CalRecycle program activities and policy decisions.
- Expand awareness and understanding of CalRecycle and environmental justice for Californians.
- Enhance collaboration within CalRecycle, CalEPA, and its BDOs, engaged stakeholders, and community organizations.

Connecting Communities to CalRecycle C³

CalRecycle completed a guide for communities that clearly and succinctly identifies programs and services. The guidebook introduces Californians to CalRecycle and provides information about navigating the public participation process. Opportunities for public participation are highlighted throughout, and contact information and relevant websites are provided. Sections of the guidebook focus on "A Brief History of Environmental Justice," "Environmental Justice at CalEPA," "Environmental Justice Principles," and "CalEPA/CalRecycle's Tribal Policy." The guidebook is available in English in printed and electronic form via CalRecycle's website. It was released in Spanish in February 2016.



Increased Organics Recycling

To achieve its 75 percent source reduction, recycling, and composting goal, CalRecycle estimates California will need to move about 22 million more tons of materials from disposal to recycling each year. Almost one-half of the material currently going to landfills consists of organic materials (such as food waste, green waste, and lumber) that can be better used in composting, anaerobic digestion, and biomass facilities. Diverting these materials from landfills will result in less pollution and a better environment for California. While these facilities will create new jobs and provide new recycled feedstock for California's agricultural and manufacturing sectors, they also have the potential to impact the communities in which they are located. As such, CalRecycle is cognizant of, and adherent to, the careful balance associated with building facility and program infrastructure in a way that does not negatively impact communities. CalRecycle has a vision for this next generation of organics management facilities: an advanced statewide infrastructure that not only expands on the accomplishments California has made so far, but leverages technologies that are more versatile and offer better environmental performance. This vision meshes with numerous other environmental goals, including the Governor's Healthy Soils Initiative and the ARB's greenhouse gas emission reduction goals. CalRecycle is committed to focusing its resources on technologies and industries that not only help California meet its 75 percent recycling goal, but offer maximum environmental performance and minimize impacts to affected communities. CalRecycle is implementing AB 1826 (Chesbro, Chapter 727, Statutes of 2014), which passed in 2014 and requires businesses to recycle their organic waste beginning April 1, 2016 (depending on the amount of waste they generate per week), as well as AB 1594 (Williams, Chapter 719, Statues of 2014), which prohibits the use of green material as alternative daily cover at landfills from counting as recycling beginning in 2020.

Public Notice Guidance and Training

CalRecycle staff will continue to provide guidance and conduct training classes for local enforcement agencies and operators on regulations for local notice and meetings, and will continue to attend local meetings.

- Illegal Disposal Task Force: CalRecycle will continue work with the Illegal Disposal Task Force to assist local agencies to maximize administrative processes, expand the utilization of volunteer workers to help mitigate illegal dumping, and advise on state legislation as appropriate. CalRecycle will continue to explore ways to expand local program funding support to communities that are disproportionately impacted by illegal dumping.
- Transparency in Permitting and Siting: CalRecycle continues to be involved in numerous discussions with local and state regulatory agencies regarding the permitting and siting of waste diversion facilities, particularly those involving the management of organic materials such as green waste, food waste, and biosolids (treated residuals from wastewater treatment). These discussions have involved rulemakings proposed or promulgated by several air quality management districts on odor management, particulate emissions, and volatile organic compound emissions from composting facilities. They also have involved proposed rulemakings by regional water quality control boards on requirements for controlling leachate and runoff from such facilities. As part of these discussions, CalRecycle has sponsored technical research on emissions from compost piles and provided information to the regulating entities on cost-effective best management practices to reduce emissions, runoff, and leachate while maintaining the economic viability of these facilities. Without a viable composting infrastructure, organic materials will decompose in uncontrolled conditions or will be transported (with associated air emissions) to more distant operations. CalRecycle continues to promote transparency in the rulemaking process so that all affected stakeholders have early and consistent opportunities for input. This transparency is afforded by public workshops and by the posting of materials on websites, listservs, and similar mechanisms.
- Proposed Compostable Materials, Transfer Processing Regulations: CalRecycle started development of regulations designed to protect public health and safety and the environment

by more effectively managing organic material. Two of the key elements of the proposed regulations, which are expected to become operative in January 2016, include criteria for the safe land application of organic material and a mechanism to identify odor sources and best practices for managing these odors. By establishing criteria for safe land application of organic material, the regulations will reduce litter and minimize the amount of plastic entering surface water and the ocean, and improve food safety and animal health by reducing toxic metals, disease-causing organisms, and physical contaminants. By providing a mechanism to identify odor sources and best practices for managing these odors, the regulations will provide enforcement agencies with an additional tool to address odor issues in a timely manner at facilities handling organic material.

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC) is committed to developing and conducting its public health and environmental protection programs to achieve equity and fair treatment of all Californians, regardless of race, age, culture, income, education, or geographic location.

From 2013-2015, DTSC's EJ Initiative focused on community-based compliance and enforcement actions, reducing impacts from industries in disadvantaged communities, and improving transparency and public outreach opportunities. DTSC achieved foundational accomplishments including the creation of the Assistant Director for Environmental Justice position, establishing a Safer Consumer Products and Workplace Program, drafting a Supplemental Environmental Projects Policy, and training on the use of CalEnviroScreen and other screening tools to prioritize actions benefiting disadvantaged communities. Below is a summary of the environmental justice accomplishments and challenges from 2013-2015.

Challenges

- Building community trust through early consultation and frequent community engagement prior to decision-making within the Department.
- Coordinating the integration of environmental justice principles throughout DTSC programs and multi-agency partnerships, such as multi-media monitoring in fenceline communities.
- Meeting the short- and long-term community health and epidemiological information requests of disadvantaged communities where DTSC performs cleanups, permits facilities, and enforces hazardous waste control laws.

Accomplishments

Staffing

DTSC established a new executive-level position of Assistant Director for Environmental Justice to lead the integration of EJ and Tribal Affairs throughout DTSC. The Assistant Director was appointed in May 2015, and will develop and implement a comprehensive environmental justice

program throughout the department, as well as enhance Tribal relations. The Assistant Director will serve as ombudsperson and outreach coordinator for disadvantaged communities where hazardous materials and hazardous waste disposal facilities are located. The Assistant Director will also provide information and assistance to communities on permitting, enforcement and other department activities in the major languages spoken in those communities. Where community health or epidemiological information that has been collected by the department or other parties, the Assistant Director will work to make that information available to communities.



New Environmental Justice Position

DTSC established a new executivelevel position of Assistant Director for Environmental Justice to lead the integration of EJ and Tribal Affairs throughout the Department.

Enforcement

DTSC's enforcement program monitors hazardous waste transfer, storage, treatment, and disposal, and takes appropriate action against violators.

- The following are enforcement highlights during the reporting period:
 - Initiated 50 administrative and civil enforcement cases; settled 29 administrative and civil enforcement cases.
 - Assessed \$2,706,463 in settled cases resulting from administrative and civil enforcement actions.



- Processed a total number of 608 complaints.
- At the U.S./Mexico border, a total of 3,891 trucks were inspected and six hazardous waste violations discovered.

Office of Criminal Investigations (OCI): DTSC is the only BDO within CalEPA that employs sworn police officers. Similar to officers in other areas of law enforcement, the DTSC investigators have the powers of arrest, search, and seizure. DTSC utilizes this unique capability to conduct criminal investigations of environmental violations when warranted. The OCI has found criminal enforcement to be an effective deterrent to environmental violations in communities overburdened by hazardous waste pollution. In particular, a couple of OCI's key enforcement cases in environmental justice communities were:

- Involvement in nine statewide cases that were settled, with a total settlement of \$64,638,850. Total Supplemental Environmental Projects were \$11,550,000, and the total received by DTSC from the statewide cases was \$5,930,580.
- Eight OCI-led cases were settled civilly and criminally, totaling \$13,256,828 in judgements. DTSC's total judgements were \$10,263,695 and nine OCI-led cases were settled criminally, resulting in 12 felonies, 15 misdemeanors, two arrests, 59 months of jail time, 27 years of probation and 350 hours of community service.
- Electro-Forming Co., Richmond -- Following a series of enforcement actions, DTSC's oversight efforts resulted in a guilty plea on Feb. 20, 2015, to four felony and nine misdemeanor charges by the owner of the Electro-Forming company in Richmond. The metal plating business had a history of hazardous waste violations including unlawful storage and treatment of waste, operating without a permit, and unlawful handling of wastes causing unreasonable risk of fire, explosion, serious injury or death. The owner faces three years in jail if she does not close the facility. In 2013, DTSC obtained a temporary restraining order against the facility that required the owner to remove hazardous waste including drums and a large Baker tank used to store plating wastes with high levels of cyanide and heavy metals. The wastes were removed.
- Waste Transporter Jose G. Sosa -- DTSC pursued enforcement against a transporter that illegally managed, transported, and disposed of hazardous waste. DTSC received a judgment of \$243,000 and an agreement prohibiting the owner to transport hazardous waste again after DTSC found that he negligently disposed of 55-gallon drums of hazardous waste including flammables in a truck trailer outside a truck stop in Ripon, California. The judgment was handed down in January 2014.
- People of the State of California v. Jeff A. Prins (Tulare County) and People of the State of California v. Jeffery Allen Prins (King County) -- On January 31, 2014, the District Attorneys in Kings and Tulare counties filed criminal complaints against Jeffrey A. Prins, the owner of

The Recycle Depot, Inc., a metal recycler that violated hazardous waste laws at its facilities in both counties. The charges levied were violations of Health and Safety Code section 25212 for both counties, as well as Health and Safety Code section 25190 filed by Kings County. Prins operates one recycling facility in Tulare County and two others in Kings County. Prins pled no contest to misdemeanor violations of the Health and Safety Code in both counties and, as a result in Tulare County, received one year of summary probation and was fined \$3,000. In Kings County, Prins received three years of probation and ordered to serve 100 hours of community service. He also was ordered to make a community service payment of \$2,500 and pay a fine of \$1,103. His facility's certified appliance recycling certificate was suspended for 90 days. Both District Attorneys allege that Prins failed to remove Materials that Require Special Handling from major household appliances at both the Visalia facility, and at the Fifth Street facility in Hanford. Kings County further alleged that Prins violated the California Hazardous Waste Control Law related to the handling, disposal, and storage of hazardous and universal wastes at both Hanford facilities.

- People of the State of California v. Roy Paul Gressly-- On January 7, 2014, the Attorney General's Office prosecuted Roy Paul Gressly, who pleaded no contest to Health and Safety Code violations. Gressly was sentenced to 120 days in jail and a three-year probation for violations of Health and Safety Code section 25189.5(b) (unlawful disposal of hazardous waste), two violations of section 25189.5(c) (unlawful storage of hazardous waste) and two violations of section 25189.5(d) (unlawful transportation of hazardous waste to unauthorized locations). Gressly was also sentenced to six felony violations of the Hazardous Waste Control Law.
 - During probation, Gressly is prohibited from working in the hazardous waste business. The court ordered Gressly to pay more than \$228,000 in restitution to customers and landlords who had to clean up illegally stored and abandoned hazardous waste, and to pay a criminal fine of \$7,500, plus assessments, surcharges and penalties.
 - Operating under several business names, Gressly was a commercial hazardous waste transporter who accepted hazardous waste from customers for delivery to authorized disposal facilities. Instead of delivering the waste for proper disposal, he stockpiled it at three unauthorized locations in the Los Angeles area, and abandoned some of the waste at two of those locations.

DTSC Working to Ensure Protections for Impacted Communities: Over 50% of all DTSC inspections, complaint investigations, and enforcement actions took place within areas of the state identified by CalEnviroScreen, the most burdened and vulnerable to multiple pollution sources and stressors.

Exide Battery Recycler, Vernon: In June 2013, DTSC ordered Exide Technologies, a battery recycling facility located near the communities of Maywood and Boyle Heights in East Los Angeles, to suspend operations. The Exide facility received used lead-acid batteries and recycled them to recover lead for other uses. Exide had an average production of 100,000 to 120,000 tons of lead per year. This is equivalent to recycling approximately 11 million car batteries, which is about the same number of used batteries generated in California annually. Exide also recovered lead from lead bearing plant scrap and secondary materials, primarily from lead-acid battery manufacturers.

In February 2015, DTSC informed Exide that it would not approve a permit for the facility, and on March 12, issued an order to close the facility. After a detailed review of the facility's record and its permit application, the department concluded that the facility could not operate in compliance with California's safeguards to protect public health and the environment.

DTSC issued an order to Exide Technologies battery recycling plant in Vernon to revise the Closure Plan for final closure and provide for enhanced cleanup of residential properties in the surrounding community. DTSC will ensure that closure activities are protective of the community and the environment.

In March 2015, Exide Technologies began closure of their Vernon facility.

Initial Sampling and Cleanup Surrounding Exide

As of December 7, 2015, the following properties were prioritized for clean-up in the Initial Assessment Areas:

- Northern Assessment Area 19 Priority 1 properties, 33 Priority 2 properties, 20 Priority 3 properties, and one property that requires no clean-up.
- Southern Assessment Area 15 Priority 1 properties, 31 Priority 2 properties, 37 Priority 3 properties, and two properties that require no clean-up.
- Combined Northern and Southern Assessment Areas 34 Priority 1 properties, 64 Priority 2 properties, 57 Priority 3 properties, and three properties that require no clean-up.

Formation of a Community Advisory Group for Exide Technologies Closure and Cleanup

Starting in May 2015, DTSC collaborated with the South Coast Air Quality Management District to convene an Advisory Group to review the status of these efforts. The Advisory Group has met six times and has selected a Technical Advisor, paid for by DTSC and Air Quality Management District, to provide support for community members on the Advisory Group when they are assessing the complex issues that can come up during the discussion of closure and cleanup options. The Office of Environmental Health Hazard Assessment has also presented information to the Advisory Group on California's Health Screening Level for lead, and steps that people can take to protect themselves from lead in soil, paint or other substances.

Continued Soil Sampling, Clean-up, and Community Engagement

Although DTSC initially focused on the Northern and Southern Assessment Areas, it also required that additional sampling be done for contamination beyond these areas. Unfortunately, this sampling of 146 other properties revealed various levels of lead contamination across a large area. In response, with the support of the Legislature, DTSC obtained an additional \$7 million for remediation activities. DTSC is currently using this funding to conduct a second phase of sampling cleanup activities for the 41 properties where initial test results found the highest levels of lead. DTSC expects the cleanup of these properties to occur through the middle of 2016. The Department will prioritize cleanup at other similarly contaminated areas as DTSC sampling locates such properties.



Investigation and Cleanup Progress				
	Initial Assessment Area	Preliminary Investigation Area	Total	Soil
Total Properties	219	~10,000	~10,000	Removed to Date:
Properties with signed access agreements	195	616	811	
Properties sampled	195	377	572	10,721
Properties assigned Priority 1	40	99	139	TONS Pross
Properties cleaned up	186	12	198	
Properties refused access for cleanup	6	0	6	
Properties no cleanup required	3	2	5	

Last update: 02/24/2016 For questions, contact: Mary Sue Maurer, Public Participation Specialist (818) 717-6566 PIA - Preliminary Investigation Area: 1.7-mile radius around Exide Facility Concurrent with this cleanup effort, the Department is conducting sampling on other residential properties located up to 1.7 miles away from the Exide facility, which may include approximately 10,000 properties. DTSC is using X-Ray Fluorescence technology that allows for immediate results while sampling in the field, and is also collecting and submitting taking 10 percent of the soil samples at each property for laboratory analysis to confirm these results.

DTSC is developing a comprehensive plan and draft Environmental Impact Report to prioritize the cleanup of properties based on the levels of contamination and the potential for exposure. Special emphasis will be placed on reducing the potential exposure to vulnerable populations.

DTSC is also seeking to create programs that promote public health and support the local economy, such as a technical certification program that would allow community members to take part in the cleanup process while building technical and job skills. The goal of this initiative is to empower community members to take part in this critical cleanup effort. DTSC is also developing contact points for the community, including information repositories or drop-in locations for residents to speak with staff. These contact points can include libraries, community centers, schools, churches, and shared space in government and community partner buildings.

DTSC Improving Enforcement Transparency

- Access to Enforcement Information and Transparency: In April 2014, DTSC developed a
- publically accessible enforcement program database, EnviroStor, for inspection and enforcement related data. The database provides the public with information about enforcement actions, dates of inspections and violations found for businesses that generate, transport, treat, store and dispose of hazardous wastes.
- Public Comment on DTSC's Administrative Enforcement Actions- December 2014: DTSC's pilot project offers a 30-day public comment period on Administrative Orders. Staff conducted five community feedback workshops, in Los Angeles, Riverside/San Bernardino, Coachella/Imperial, Central Valley, and Oakland, and presented the pilot project on December 10, 2014 at DTSC's Public Meeting. The project is posted on DTSC's website and launched in January 2015.



Exide Battery Recycler, Vernon

DTSC ordered Exide Technologies to test for lead in residential yards in portions of Boyle Heights, East Los Angeles and Maywood. Yards showing soil sample results of lead levels higher than the DTSC cleanup level for these assessment areas of 80 parts per million (ppm) are being cleaned up at no cost to the property owner. Properties are prioritized for clean-up based on the lead levels; Priority 1 properties have the highest levels of lead and are cleanedup first, Priority 2 properties have lower levels and are cleaned-up second, and Priority 3 properties have the lowest levels and are cleaned-up last.

Permitting

In early 2014, DTSC developed and began implementing a Permitting Enhancement Work Plan (Work Plan) to refine the Department's permitting program. The Work Plan serves as a roadmap to guide DTSC's efforts to improve the permitting program and consists of 10 major goals and 88 action items. One major goal is to identify and address EJ concerns early in the permitting process.

- DTSC is also developing a process to identify and prioritize upcoming permitting actions for facilities that may have a significant public health or environmental impact. Actions are underway to develop a procedure for enhanced review to identify potential health concerns and sensitive receptors around permitted facilities in EJ communities, and to identify appropriate mitigation measures that can be incorporated as permit conditions.
- In 2015, DTSC initiated a new procedure to ensure quarterly updates of permit activity at each facility are provided on the public-facing database, EnviroStor, to expand the information DTSC regularly provides to the public about the Department's permitting decisions and encourage consistency and transparency.

Cleanup

In April 2015, DTSC received \$400,000 in support from U.S. EPA's Brownfields Assessment Grant for work in Los Angeles County. The grant awarded to DTSC will focus on Southern California's I-710 corridor, a 23-mile freeway that leads to the ports of Long Beach and Los Angeles and is home to one of the state's largest concentrations of refineries and rail yards.

DTSC also led the development of a screening tool for prioritizing impacted wells and facilities of interest, called the Spatial Prioritization and Geographic Information Tool (SPIGT). As part of the U.S. EPA Preliminary Assessment/Site Investigation Grant, SPIGT is being used to help identify and address well contamination in communities burdened by multiple sources of pollution. Study areas have been developed in: Northeast I 710 Area located in Vernon, Maywood and South Gate; Slauson Gage Corridor Area located in Huntington Park; Paramount; San Luis Obispo; and Pomona.

Environmental Justice Community Support

DTSC has engaged in direct actions to support communities and improve the quality of life in impacted communities. Some highlights of those efforts include:

 Clean Green Healthy Schools Workgroup DTSC Partnered with U.S. EPA Region 9 to – July - December 2014

DTSC co-founded with U.S. EPA Region 9 to form the Clean Green Healthy Schools Workgroup purposed to reduce toxic impacts to schools and children's health

- The Workgroup established a communication network between communities, schools, and governmental agencies.
- The 2014 pilot project established a specific focus on schools and childcare centers located within disadvantaged communities.
- The Clean Green Healthy Schools Workgroup expanded its focus from Southern California to statewide school issues in 2015.
- U.S. EPA State Environmental Justice Cooperative Agreement (SEJCA) December 2014 July 2015

DTSC was the only state government entity in California to be awarded the \$160,000 grant from the U.S. EPA. The SEJCA grant was purposed to build partnerships and state government collaboration with community groups on projects designed to address environmental and public health impacts in one of the most industrialized areas of Southern California – the Interstate 710 Freeway Corridor in southern Los Angeles County. The 710 Corridor, a 23-mile artery that links the ports of Long Beach and Los Angeles with the rest of Southern California and the nation, is home to some of California's most vulnerable and underserved communities that are disproportionately burdened by environmental harms and risks.

A key goal of this grant was to support the creation of model projects that reduce environmental impacts in communities that could be replicated elsewhere. DTSC identified sources of contamination and pollution and developed mitigation measures, informing and educating residents, and reducing health threats at local schools.

SEJCA Grant Accomplishments

DTSC successfully concluded the grant on June 30, 2015. A total of 13 Community Partnership projects were launched and completed through the grant. The project activity during the current reporting period is listed below:

- Los Angeles Environmental Justice Network (LAEJN): Organized community-led bus tours along the 710 Corridor for local, state and federal government environmental decision-makers and legislative representatives to provide an opportunity to initiate discussions on the need and critical importance of community-agency partnerships and collaborations focused around improving environmental and public health conditions for those living with the impacts every day at home, school, work and play from ports, contaminated sites and other sources of toxic air pollution such as refineries (\$7,635).
- LAEJN: Groundwater Convening: LAEJN hosted a total of four convening which consisted of representatives of local water organizations and state agencies to evaluate the information available on the quality of groundwater in the Los Angeles. Creating a long-term sustainable source of water for the Los Angeles area is a critical concern of LAEJN. Local groundwater provides nearly 40% of the total water needs for the LA area. Serious wide-spread groundwater contamination is impacting the availability of safe drinking water in many areas of the LA Basin (\$5,150).
- East Yard Communities for Environmental Justice (EYCEJ): Completed a "No Truck Idling" project which collected data and employed youth to identify local truck idling "hot spots" in the city of Commerce. ARB provided the "No Idling Signs" for the project. The City of Commerce agreed to install the signs at no cost and enforce the new state idling law. The project concluded with a "trucker's appreciation" and no idling sign unveiling event in Commerce. The project will ultimately reduce pollution and improve local environmental health conditions.



Commerce residents are impacted by the large amounts of diesel exhaust generated by approximately 47,000 diesel trucks being driven daily through the City and face increased cancer rates 2.5 times higher than that faced by other LA area residents. Reducing this risk is a primary environmental health concern for the City (\$5,000).

• **EYCEJ**: Organized "Useful Spots Not Empty Lots," a project to identify brownfields and potential beneficial uses for those empty spaces in the City of Commerce. The project's lead participants were local high school students who will conduct a survey using social media to identify needs and desired uses of empty lots in the community. Mapped locations and developed recommendations can be used by the City to seek further grant funding for cleanup and reuse and to facilitate development of a community-led revitalization strategy and broader long-term sustainable beneficial uses (\$5,000).

• California Safe Schools: Identified the use of artificial turf and crumb rubber in children's play areas and athletic fields as a critical concern for children's health. The use of these materials is increasing, particularly in environmental justice communities, and proposals for its use are increasing due to claims that the installation of these materials is drought resistant. California Safe Schools has completed some additional basic research on artificial turf and crumb rubber and the impacts on children's health and has prepared a report framing the critical



issues, problems and areas needing further research and testing (\$2,835.33).

Goals

Promote Supplemental Environmental Projects

A Supplemental Environmental Project (SEP) is a project that benefits the environment or public health. A SEP must improve, restore, protect, or reduce risks to public health and/or the environment beyond compliance with environmental laws. DTSC is in the process of finalizing a new policy and providing guidance for SEPs.

The SEPs policy is part of DTSC's commitment to environmental justice, as DTSC will prioritize the use of SEPs in California's most impacted and vulnerable communities, including California Native American Tribes.

DTSC conducted five public workshops in Fresno, Los Angeles, Brawley, Oakland, and Monterey County and provided a 45-day public comment period. Approximately 300 public comments were received. The public notice was posted on DTSC's website and emailed to approximately 2,000 contacts, including over 175 Tribal contacts.

Prioritize DTSC Resources to Better Serve Impacted Communities

DTSC will prioritize complaint investigations, inspections, cleanups, and enforcement activities based on two new screening tools: CalEnviroScreen and DTSC's Spatial Prioritization Geographic Information Tool.

Expand Public Participation

A contract with the UC Davis Extension Collaboration Center is in place to develop recommendations for a new public engagement strategy to involve stakeholders early, particularly in communities where there are multiple sources of pollution and residents are more vulnerable. Interviews with key EJ stakeholders and community members will address effective outreach strategies.



Work Collaboratively to Address Sources of Contamination

To enhance and speed up DTSC's ability to effectively address contamination issues, Cleanup and Enforcement staff will work collaboratively to use Geographic Information Systems and modeling software to identify contamination sources of complex soil and groundwater plumes in disproportionately impacted communities.

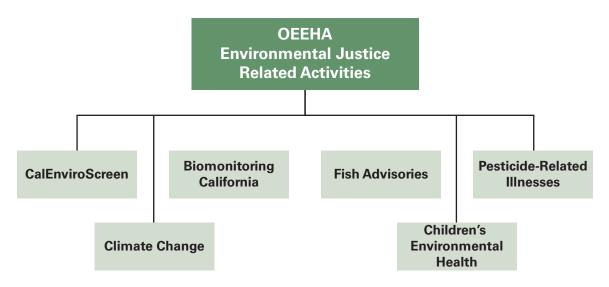
Implement Permitting Program Improvements

DTSC Permitting staff will continue to work diligently on the implementation of the over 50 specific actions developed through a combination of the California Personnel Services report findings and DTSC's own findings in order to improve the permit review process and reduce the time needed for application review. Progress will continue to be tracked on DTSC's website.

Office of Environmental Health Hazard Assessment

The Office of Environmental Health Hazard Assessment (OEHHA) is the lead state entity responsible for the assessment of health risks posed by environmental contaminants. OEHHA's mission is to protect human health and the environment through scientific evaluation of risks posed by hazardous substances. This includes assessing health and environmental risks from climate change, cancer-causing chemicals, air pollutants, pesticides, and chemicals in food and water. For example, OEHHA evaluates chemicals that cause cancer, birth defects and other reproductive harm to support the listing of these chemicals under Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986). OEHHA's assessments are used to develop the state's ambient air quality and drinking water standards, and guide the regulation of pesticides, toxic air contaminants, and the cleanup of hazardous waste and groundwater contamination.

OEHHA's science-based work is undertaken with an understanding of the importance of protecting susceptible populations, including children, the elderly, and communities with disproportionate environmental burdens and vulnerabilities, including many Tribal, low-income, and minority communities, and pesticide workers who may be highly exposed to chemicals in the workplace. OEHHA activities that address these concerns include the CalEnviroScreen, California Environmental Contaminant Biomonitoring Program (Biomonitoring California), fish advisories, pesticide-related illnesses, Children's Environmental Health program, and climate change indicators.



Challenges

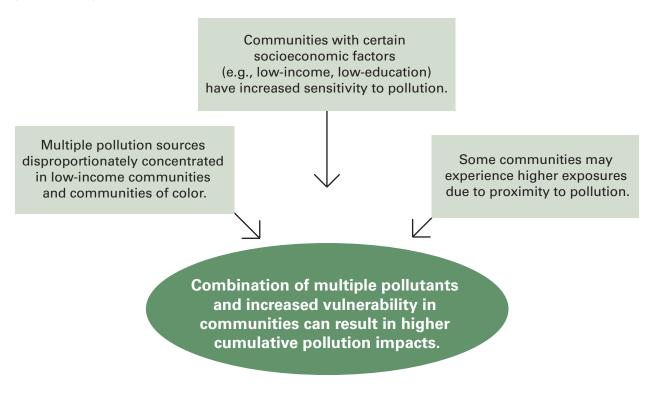
- Proposition 65 generally requires businesses to provide warnings when they intentionally cause exposures to chemicals identified by the state as causing cancer or reproductive toxicity. Currently, most warnings appear only in English, limiting the ability of non-English and limited-English speakers to use Proposition 65 to reduce their exposure to carcinogens and reproductive toxicants. In 2014 and 2015, OEHHA engaged in stakeholder discussions and proposed a regulation to make Proposition 65 warnings more meaningful and provide warnings in non-English languages.
- Additional data gathering and analysis for CalEnviroScreen is an ongoing challenge. For example, in 2014 legislators and local and regional entities requested that OEHHA consider the environmental impacts from sources in Mexico on California communities located near the border. Some adjustments to CalEnviroScreen were made to account for pollution sources from Mexico.
- OEHHA's fish advisories provide "safe eating guidelines" to help consumers choose the safest

fish to eat and to avoid fish species containing high levels of chemicals. These advisories are posted on the OEHHA website and included in the California Department of Fish and Wildlife's sport fishing regulations booklets. However, challenges remain in outreaching to vulnerable populations, including how to effectively communicate that the advisories exist and provide understandable advice regarding a complex subject.

Accomplishments

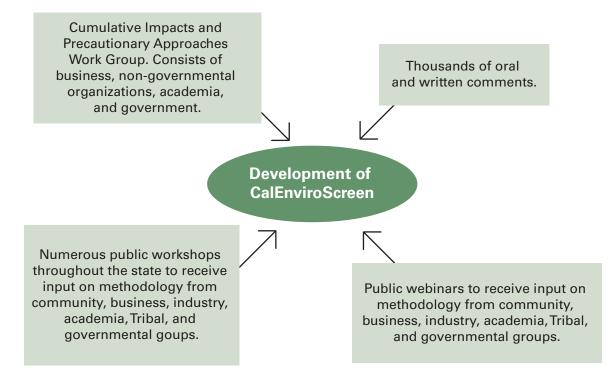
Framework for Assessing Communities Burdened by Multiple Sources of Pollution – CalEnviroScreen

Many communities in California face multiple sources of pollution with complex, multiple-route exposures. Low-income communities and communities of color bear a disproportionate burden from environmental pollution. Additionally, these communities have different types of vulnerabilities, including socioeconomic stressors, which can intensify the adverse impacts from environmental pollution. Understanding and addressing the vulnerability of communities most impacted by pollution is critical to minimizing environmental health and justice disparities and is a primary focus of CalEPA and OEHHA. CalEPA and OEHHA published a guidance report, *Cumulative Impacts: Building a Scientific Foundation*, in 2010 on the assessment of "cumulative impacts"." As detailed in the report, there are multiple factors that can contribute to cumulative pollution impacts:



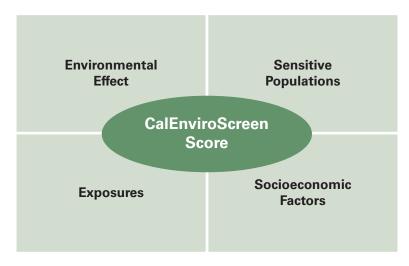
In the report cumulative impacts is defined as, "the exposure, public health, or environmental effects from the combined emissions and discharges, in a geographic area, including environmental pollution from all sources, whether single or multi-media, routinely, accidentally, or otherwise released. Impacts will take into account sensitive populations and socio-economic factors, where applicable and to the extent data are available."

As a follow-up to this report, OEHHA created and released CalEnviroScreen in 2013 to begin to identify which communities are most impacted and vulnerable to the effects of pollution. The development of CalEnviroScreen involves extensive public comment and stakeholder involvement represented in the diagram below:



OEHHA was widely commended for its efforts to engage diverse stakeholders in the process of developing the tool. The success of CalEnviroScreen is in part due to public engagement. Future updates will continue to account for public concerns and comments to the extent possible.

To understand which communities are of concern, CalEnviroScreen brings together information from different sources to produce an overall measure of cumulative impacts represented in the diagram below:



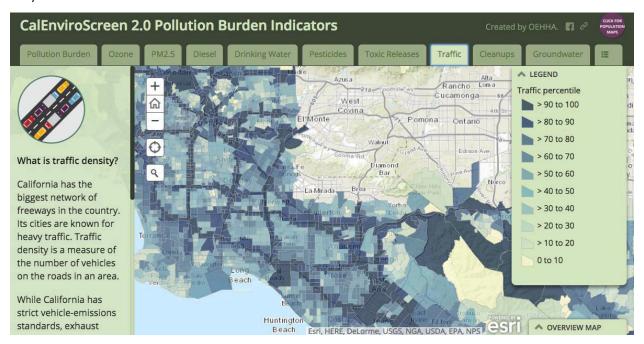
Policy makers, regulators, risk assessors, public health scientists, and community members have used the tool to develop strategies to ameliorate impacts and minimize environmental health and justice disparities.

The CalEnviroScreen maps are available online and maps have recently been released with the availability to view each indicator on its own. Additionally, as of December 2015, the CalEnviroScreen tool can now be viewed in Spanish, making it easier for all Californians to use. Updated indicator data will be added to the tool in a future version.

While useful for screening, CalEnviroScreen is not a substitute for formal risk assessment and cannot predict whether impacts in a community are high enough to cause health concerns. CalEnviroScreen does provide a broad picture of potential impacts on a community's health. The tool's results do not and are not intended to assign responsibility for the issues or burdens confronting a particular area to a specific source or sources. Factors or influences arising from outside area boundaries may contribute to the result.



Public workshop to receive input on CalEnviroScreen from various stakeholders (Summer 2014).



Biomonitoring California

Biomonitoring California is a collaborative effort of the Department of Public Health, OEHHA, and DTSC that measures environmental chemicals in the bodies of people across the state. The California Department of Public Health is the designated lead of the program. The program's objective is to analyze biological fluids (e.g., blood and urine) for the presence of environmental chemicals in California residents to establish trends in exposures over time and to help assess the effectiveness of public health and regulatory efforts to reduce exposures.

More than 400 of the approximately 3,700 Californians whose samples were analyzed during

2007- 2014 live in heavily impacted urban or rural communities. For example, study subjects have included pregnant women recruited from San Francisco General Hospital and adults and children in low-income agricultural communities. In a study in California's Central Valley, Biomonitoring California measured environmental chemical exposures in adults. One phase of this study focused on recruiting Hispanics, Asians, African Americans, and Pacific Islanders and included provisions that enabled participation by those who speak only Spanish. Another study involved measuring chemicals used in personal care products and cosmetics in 100 Latina teenagers in the Salinas area.

Participants in Biomonitoring California projects receive their results upon request. In collaboration with the California Department of Public Health, OEHHA has developed fact sheets about the chemicals measured in Biomonitoring California studies, including possible ways to reduce exposure. The fact sheets are one part of a packet of materials intended to help study participants understand their biomonitoring results. The fact sheets are translated into the language spoken by study participants.

Fish Consumption Recommendations

OEHHA assesses the levels of mercury and other contaminants in fish from California's lakes, rivers and coastal areas, and produces advisories with recommended consumption levels so that anglers and their families and friends can enjoy the benefits of healthy fish consumption while minimizing their exposure to harmful contaminants. OEHHA provides fish consumption recommendations using a graphic-based format that makes it easier to understand advisories across languages and cultures. To improve public outreach to impacted



Biomonitoring in Spanish

The updated website has substantial content in Spanish, including:

- A guide to biomonitoring
- Descriptions of Biomonitoring California projects
- Fact sheets about the chemicals being measured

The site, including the Spanish content, was designed with ease of use, accessibility, and relevance for a general audience in mind. In addition, a brochure designed to provide simple answers to basic questions about biomonitoring is available in Spanish and Chinese, as well as English.

communities, OEHHA collaborated with the Big Valley Rancheria Band of Pomo Indians to update the state fish advisory for Lake County's Clear Lake; with the Fish Contamination Education Collaborative (FCEC) for its Santa Monica Bay and San Pedro Bay advisories; and with the California Department of Public Health, the Central Valley Regional Water Quality Control Board, and the Sacramento-San Joaquin Delta Conservancy to implement the Delta Mercury Exposure Reduction Program (MERP). OEHHA also collaborated with the Port of San Diego and other agency and community-based public health organizations in the development of fish advisory signs for San Diego Bay.

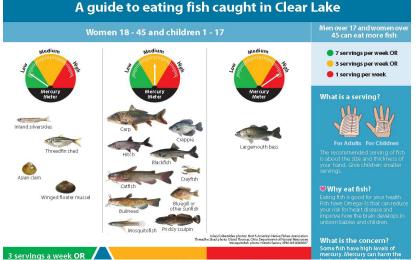
OEHHA developed the updated Clear Lake advisory in response to requests and with input from members of the Big Valley Rancheria Band of Pomo Indians. The newly updated advisory offers fish consumption guidelines on traditional fish and shellfish and other species important to Tribal members and other fish consumers.

The Port of San Diego led the effort to design, print, and post fish advisory signs showing OEHHA's fish consumption advisory for San Diego Bay. OEHHA, the San Diego Bay Regional Water Quality Control Board, the San Diego County Department of Environmental Health, and the Environmental Health Coalition collaborated on the development of the sign.

For the Delta MERP, a Stakeholder Advisory Group (SAG) was formed to oversee and implement a risk reduction project. Three non-profit community organizations that received grants represent diverse, underserved, and low-income populations, potentially including subsistence fishers. OEHHA provided training to grantees that are conducting education and outreach in their respective communities. The three Delta fish advisories (Sacramento River and North Delta, Central and South Delta, and San Joaquin River) will be translated into eight languages to meet the needs of the communities. The project will also develop and post fish advisory signs,

designed graphically to enable understanding without English language proficiency, in five Delta counties.

In Southern California, OEHHA collaborated in a similar education and outreach project with the FCEC, the public outreach and education component of the U.S. EPA's Palos Verdes Shelf Superfund program to protect the most vulnerable populations from the health effects of consuming contaminated fish. Similar to the SAG, the FCEC is comprised of community-based organizations, state and federal agencies, local



health departments, and other local organizations. OEHHA regularly participates in the FCEC and, among other activities, assisted in designing advisory signs posted throughout the Los Angeles area in multiple languages.

Pesticide-Related Illness: Training and Reporting

OEHHA has implemented several program improvements in 2013-2015 in continuing efforts to advance the recognition, treatment, and reporting of pesticide-related illness in California. As part of the educational and training outreach program, OEHHA provides the following resources for health care providers and the general public to further increase awareness of pesticide-related illness and injury.

- "Recognition, Management and Reporting of Pesticide Illness" A free, revised, on-line course on pesticide illness surveillance with information on the recognition of symptoms and management of pesticide poisoning. Available in both English and Spanish. Continuing Medical Education credits available. (Spring 2015).
- "The California Medical Supervision Program" A free, revised, on-line course for physician medical supervisors who oversee the clinical bio-monitoring program which protects the agricultural workers who regularly handle highly toxic organophosphate or n-methyl carbamate pesticides. Available in both English and Spanish. CME credits available. (Spring 2015).

- "Medical Supervision of Pesticide Workers: Guidelines for Physicians who Supervise Workers Exposed to Cholinesterase-inhibiting Pesticides. 5th Edition"
 - This newly revised edition contains the latest requirements for physicians who are medical supervisors in the California Medical Supervision Program. (Spring 2015).
- "An Education Program for Health Care Providers: Pesticide-Related Illness and Injury" a brochure describing the available posters, brochures, on-line courses and in-person presentations offered on recognizing and treating pesticide illness.

Electronic reporting of known or suspected pesticide illness became available via the state's California Reportable Disease Information Exchange (CaIREDIE) system in December 2012. U.S. EPA funding of a joint OEHHA, DPR and California Department of Public Health proposal was used to add pesticide illness reporting functions to this state-wide disease database. As health care providers and laboratories submit pesticide illness reports into CaIREDIE, the data becomes immediately available for local health department review, state agency review and investigation, addition of commentary and evaluation of control and intervention programs – all within the Health Insurance Portability and Accountability Act -compliant system.

• Of the 61 local health departments in California, 57 now report all diseases to the CalREDIE system. CalREDIE continues to grow rapidly as both health care providers and diagnostic laboratories join the system. Pesticide illness can now be reported electronically via CalREDIE in more than 20 counties.

Extensive use of pesticides in the present-day agricultural industry represents a potential health risk to its workers. Under state law, OEHHA and DPR have joint and mutual responsibility for the development of health and safety regulations to protect these workers.

- Passage of the Farmworker Health Act (AB 1963) in 2010 mandated reporting of biomonitoring test results (specifically, blood cholinesterase activity) to DPR and OEHHA for evaluation of California's Medical Supervision Program. Analysis of this data will help evaluate employer compliance with the program and further reduce the potential health risk to pesticide handlers and other high-risk agricultural workers.
- OEHHA continues to provide detailed peer reviews of DPR human health risk assessment for pesticides. A review of the exposure assessment document for the insecticide carbaryl and several other pesticides were recently completed.

Studies of Climate Change and Health Outcomes

OEHHA conducts human health studies that have found relationships between higher temperatures and adverse health outcomes such as death and illness, including hospital visits, emergency room visits, and birth defects. The studies have helped identify subgroups (such as infants) and communities (such as those in the Central Valley) that are particularly vulnerable to heat-related adverse health effects. Such information enables OEHHA to target messages to the critical audiences about the need to take proper precautions during heat waves and hot days. The following studies are examples of the contributions of OEHHA scientists to the growing body of literature on climate change:

In a study looking at infant mortality across the state, OEHHA found that risks for infant deaths were elevated when temperatures were higher during the warm season. Those risks were greatest for black infants among the racial/ethnic groups examined. Air pollution did not appear to influence the relationship².

² Reference: Basu R, Pearson D, Broadwin R. A case-crossover study of temperature and infant mortality in California. Pediatric and Perinatal Epidemiology (in press).

OEHHA teamed with other researchers to examine the impacts of 19 heat waves between 1999 and 2009 that increased hospital admissions for several disease categories, including cardiovascular disease, respiratory disease, dehydration, acute renal failure, heat illness, and mental illness. Statewide, there were 11,000 excess hospitalizations that were due to extreme heat over the period, yet the majority of these events were not accompanied by a heat advisory or warning from the National Weather Service. On a regional basis, the strongest health impacts were seen in the Central Valley and the north and south coasts³.

Children's Environmental Health Program

CalEPA Children's Environmental Health Program, created by legislation in 1999, has been housed in OEHHA since January 2012. Part of the activities of the program involves education and dissemination of research findings on impacts of environmental contaminants and other environmental stressors on children. OEHHA have held symposia in 2014 and 2015, open to the public and webcast for the purpose of educating state scientists and policymakers, as well as other interested parties. In 2014, OEHHA held a symposium with invited speakers from around the country to educate and disseminate research results on the cumulative impacts of environmental contaminants and psychosocial stressors on children. Discussion sessions were held with experts to understand the implications of non-chemical stressors in assessing risk. For example, stressors associated with poverty and discrimination enhances the way a child responds to air pollution. In 2015, OEHHA held a symposium on the impacts on children of climate change and associated conditions, such as water and food quality and scarcity, changing infectious disease risks, and increasing smog formation. Researchers from across the country described their results, and discussed mitigation and adaptation measures that will ease the impacts on children, especially children from low-resource and low-resilience communities.

The children's program also prepared and disseminated a legislative report on children's health describing the state of children's health in California and links to environmental contaminants.

Finally, the children's health program is integrated into OEHHA's other programs and reflected in their work. For example, OEHHA recently completed the Risk Assessment Guidelines for the Air Toxics Hot Spots program, which more explicitly considers infants and children in assessing exposure and risk from environmental contaminants. These guidelines were then adopted by OEHHA's drinking water program in recommending Public Health Goals.

Goals

Understanding and Addressing Communities Burdened by Multiple Sources of Pollution

CalEnviroScreen version 2.0 was finalized and released in October 2014. The release was supplemented with an online mapping tool that allows access to the results of the screen and the underlying information. CalEPA and OEHHA scientists are revising the tool, using an open and public process, as new information becomes available. For example, OEHHA is developing an indicator of drinking water quality that will factor into the overall picture of a community's pollution burden and will be providing information at the census tract scale.

As mentioned before, SB 535 (de León, Chapter 830, Statutes of 2012), requires CalEPA to identify "disadvantaged communities" based on the kind of environmental, health and socioeconomic data used by CalEnviroScreen, and to invest a percentage of the state's greenhouse gas program revenue into those communities. OEHHA is working with CalEPA and ARB to provide information from CalEnviroScreen for the implementation of this program.

³ Reference: Guirguis K, Gershunov A, Tardy A, Basu R. The impact of recent heat waves on human health in California. Journal of Applied Meteorology and Climatology, 53(1): 3-19, 2014.

CalEPA and OEHHA will continue to discuss the methodology and conclusions with the public and a wide range of stakeholders to ensure that future versions of the report will be of help to state agencies and departments in their future planning and budgeting decisions.

Biomonitoring California

Biomonitoring California will continue to develop and conduct studies to track environmental exposures of Californians that can inform environmental justice policies and activities. Information about the program's activities is updated frequently and made available online on the program's website.

Fish Consumption Recommendations

Future goals are to develop and test graphic images and advisory formats to increase accessibility and understanding of fish advisories for non-English speaking communities and diverse cultures.

Pesticide-Related Illness: Training, Reporting, and Worker Safety

OEHHA continues to develop and improve outreach to the health care community with special attention given to underserved communities.

- Continue to seek innovative ways to inform both healthcare workers on how to recognize, treat and report pesticide illness.
- Continue to support expansion of CalREDIE pesticide illness report training for county health departments and agency staff.
- OEHHA and DPR have initiated a state-wide evaluation of the effectiveness of the Medical Supervision Program cholinesterase testing program. Measuring blood cholinesterase can provide information on worker exposure to certain pesticides before the onset of illness. Study results will allow OEHHA to evaluate the effectiveness of its training programs, improve allocation of educational resources and improve outreach efforts to these physicians.
- Complete implementation of worker health and safety regulations for volatile organic compounds and closed mixing systems.
- Continue review of draft human health risk assessment documents for the pesticides as they are submitted by DPR.

Studies of Climate Change and Health Outcomes

OEHHA plans to continue work on temperature and adverse health outcomes, while focusing on environmental justice issues by examining susceptibility by race/ethnic group, education, and age.

Children's Environmental Health Program

OEHHA plans to hold annual symposia to continue to educate scientists and policymakers and stimulate ideas for implementing changes that protect children from environmental stressors.

OEHHA will continue to monitor the growing literature on health impacts of environmental contaminants in children, and in particular the interactions of chemical and other types of stressors such as psychosocial stressors and heat.

California Water Boards

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (Regional Water Boards), collectively known as the California Water Boards (Water Boards), are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. The State and Regional Water Boards are responsible for protecting California's water resources that serve over 35 million people. The Water Boards realize that this vision must include all Californians, including those individuals who live in environmentally burdened communities as well as members of California Native American Tribes. In pursuit of solutions to better serve EJ communities and Tribes, the Water Boards will continue to partner with community organizations, local governments, and state and federal agencies to achieve EJ goals.

During the past two years the Water Boards have focused efforts to address EJ concerns in five ways: 1) assuring a smooth transfer of the drinking water program to the SWRCB, 2) addressing EJ concerns throughout the Water Boards' programs, 3) providing financial assistance to disadvantaged communities and severely disadvantaged communities particularly as it relates to the drought, 4) equipping EJ communities and Tribes with information about the Water Boards' programs and public participation opportunities, and 5) equipping staff and Board Members with skills to more effectively work with EJ communities and Tribes. Below is a summary of the environmental justice challenges and accomplishments SWRCB faced from 2013-2015.

Challenges

- Over the last two years, the biggest barrier has been the sheer magnitude of the drought, being that virtually every community in the State was negatively impacted. In regards to EJ communities, the challenges have ranged from aging water systems, nitrate contaminated water supplies, and lack of financial resources to connect to larger water systems. Addressing these challenges oftentimes required solutions that crossed over the Board's water quality, financial assistance and water rights programs.
- In 2014, California transferred the state-level Drinking Water Program from the California Department of Public Health to the SWRCB. Integration of the complex Drinking Water Program into the Water Board organization has been a major undertaking and challenge. The Water Boards' main responsibilities include issuing permits to drinking water systems, inspecting water systems, reviewing and approving proposed treatment facilities, monitoring water quality, setting and enforcing drinking water standards and requirements and administering and awarding infrastructure grants and loans.
- The SWRCB's enforcement program seeks to promote compliance, deter future violations, and protect water quality, water supply, and water availability for Californians. In mid-2013, the SWRCB issued a new enforcement policy, the purpose of which was to allow staff to expend its limited resources in ways that openly address the greatest needs, deter harmful conduct, protect the public, and achieve maximum water quality benefits. The Water Boards will continue to work with EJ and clean water advocates to address enforcement issues in EJ communities.

Accomplishments – SWRCB

Drinking Water Program and Safe Drinking Water Plan

As of July 2014, the administration of the state's Drinking Water Program was transferred from the Department of Public Health to the SWRCB. This transfer of responsibility aligns the state's drinking water and water quality programs to best protect water quality and the public health. To accomplish this transfer, several steps were required, including the passing of enabling legislation, budget change proposals, organization of a drinking water reorganization taskforce, preparation of a transition plan, and the holding of public meetings around the state to receive public input. The task force included several EJ representatives and the public meetings were conducted with Spanish interpretation services available. In addition, the Drinking Water Program Transition Advisory Group was convened to provide advice to the SWRCB on issues related to the transfer of the Program. EJ advocacy groups were represented on the Drinking Water Program Transition Advisory Group.

Following the transition of the Drinking Water Program to the SWRCB, the SWRCB began to work with its Department of Public Health colleagues and others to complete the draft Safe Drinking Water Plan that had been previously prepared by the Department of Public Health staff. This Plan focuses on the state's public water systems, as defined in Health and Safety Code. There are currently more than 7,600 public water systems in the state, the majority of which serve smaller communities with the bulk of those serving 660 people or less. Many of the small public water systems are challenged by lack of technical, managerial, and financial capacity and also serve EJ communities. The Plan includes the SWRCB's assessment of the overall quality of the state's drinking water, the identification of specific water quality problems, an analysis of the known and potential health risks that may be associated with drinking water contamination, and specific recommendations to improve drinking water quality. In late 2014, staff held workshops around the state to receive input on the Plan from the public; Spanish interpretation services were available at the Salinas, Fresno, and Coachella workshops.

Environmental Justice Inventory

In 2013, the Water Boards conducted their first ever inventory of actions taken to promote EJ within its programs. The inventory revealed victories and accomplishments as well as areas in need of further development. The results of the inventory were shared with State and Regional Board Members and program managers to further promote discussions toward the achievement of EJ goals within the Water Boards' programs.

Human Right to Water Implementation

In 2012, California became the first state to enact a Human Right to Water law (Water Code, Section 106.3). The law declares that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." The SWRCB is committed to actively pursuing initiatives to address the law, beginning with the state's residents who are served by public water systems but who do not receive safe drinking water. The law calls on all relevant state agencies to consider the human right to water "when revising, adopting, or establishing policies, regulations, and grant criteria" relevant to domestic water uses. In January 2015, the SWRCB conducted a survey of its programs to help assess its progress toward implementation of the Human Right to Water. The survey found that most of the Water Boards' programs were indeed working to incorporate Human Right to Water in their work. The results of the survey were also presented to the SWRCB members at its March 2015 meeting. A resolution on the Human Right to Water was approved by the SWRCB in February 2016.

Development of Water Quality Standards to Protect Public Health

The SWRCB is charged with developing water quality objectives that are protective of California's beneficial uses of water. Since 2013, the SWRCB has been developing water quality objectives for mercury in fish tissue. This is particularly important for California Tribes that rely on fishing for cultural and subsistence uses and for disadvantaged communities who rely on fish consumption for a large portion of their diets. The SWRCB provided a grant to the University of California at Davis to survey Tribal fish consumption patterns throughout California. The results of the UC Davis study are being used to support the development of proposed consumption rates to protect Tribal uses and disadvantaged community fish consumption. The SWRCB held meetings and listening sessions with Tribal members and EJ communities to ensure that their concerns were addressed and the public health is protected.

Groundwater Cleanup Investigations

Over the last few years, the SWRCB has focused actions to further identify and address

groundwater plumes that are migrating and contaminating water supply wells in the most heavily populated areas of the state. Three examples from the Los Angeles area and one from the Fresno area are presented here.

- Data Sharing: The Los Angeles Regional Board, the SWRCB, the DTSC, and Water Replenishment District of Southern California have established a partnership focused on the Coastal Los Angeles Groundwater Basin. Known as Los Angeles Basin Groundwater Convening, it seeks to identify industrial contaminant groundwater plumes that are migrating and contaminating supply wells. This groundwater basin serves a large disadvantaged community population. Retrofitting supply wells for wellhead treatment, taking wells offline, constructing new wells in clean aquifers, or importing other water sources, and their associated cost can be burdensome to disadvantaged communities. The partnership shares and utilizes Geographic Information Systems and SWRCB and DTSC databases to identify potentially responsible parties for a number of impacted wells.
- Community Outreach: The SWRCB and DTSC have worked closely in coordinating outreach to EJ communities to assist with the assessment, cleanup, and redevelopment of dozens of contaminated properties in neighborhoods around the I-710 Corridor. In April 2014, the Los Angeles County District Attorney's "Environmental Justice Symposium" featured the successful collaboration between the SWRCB, U.S. EPA, and Los Angeles County agencies in addressing the backlog of improperly abandoned underground storage tanks in the I-710 Corridor. The Initiative brought 46 sites under Los Angeles County jurisdiction into compliance.
- Redevelopment: In March 2014, a Grand Opening & Ribbon Cutting Ceremony was held at Fronk's Restaurant in the City of Bellflower, a formerly abandoned gas station site that was identified and investigated as part of the Corridor Initiative. The City's redevelopment plans were halted by the discovery of underground storage tanks still present on the property. The Corridor Initiative enabled the redevelopment project to move forward. Favorable media coverage followed. The City of Bellflower created a YouTube video to highlight the significance of the project in revitalizing their downtown area.
- California High Speed Rail: The efforts described above were later expanded to include selected sites in the U.S. EPA EJ focus area in Fresno. As part of the SWRCB's Abandoned Underground Storage Tank Initiative, a site with improperly abandoned underground storage tanks was identified a few blocks from a planned high-speed rail station, near Chukchansi Park in



New Office of Sustainable Water Solutions

In 2008, the SWRCB developed the Small Community Wastewater Strategy to identify and address the problems faced by these communities. In mid-2014, the SWRCB established a new section dedicated to serve the drinking and wastewater needs of small and disadvantaged communities. In 2015, that section was strengthened and became the Office of Sustainable Water Solutions to focus on financial and technical assistance needs, particularly for small drinking water and wastewater systems and disadvantaged communities. The Office's periodic newsletter is distributed in English and Spanish to update the public on the Office's efforts.

downtown Fresno. Through the SWRCB's in-kind services contract with U.S. EPA, initial investigation was conducted. The SWRCB then recommended the City of Fresno apply to U.S. EPA's Targeted Brownfields Assessment Program, which resulted in the removal of four underground storage tanks. The site owner plans to redevelop the property into a restaurant.

Groundwater Monitoring Program

The SWRCB continues to support EJ projects and goals by providing groundwater quality data to the public and prioritizing high-risk areas based on that data.

- The SWRCB developed an online interactive tool, entitled, "Is My Property Near a Nitrate-Impacted Water Well?" to allow the public to determine if their private water wells are close to other wells with nitrate concentrations above public health standards. In addition to providing valuable information on nitrate in groundwater, it allows property owners to make an informed decision about whether to test their private well.
- The SWRCB is also prioritizing nitrate high-risk areas in the state that are vulnerable to contamination by nitrate and water supply issues due to drought.
- SWRCB staff is participating in a supplemental environmental project in the Central Valley region by collaborating with the Community Water Center, located in Visalia, on sampling protocols for private domestic water supply wells and providing assistance and procedures to upload and spatially display the data in the publicly accessible Geo Tracker Groundwater Ambient Monitoring and Assessment groundwater information system.
- SWRCB is also working with the Central Coast Regional Water Board to house and spatially display data collected via a safe drinking water grant project to sample private domestic water supply wells.

The SWRCB will continue to seek and welcome similar projects for collaboration.

Oil and Gas: Monitoring and Wastewater

Some California oil and gas production activities, that may have an impact on water quality, are conducted near and in EJ communities. The State Board has begun to address concerns relative to its regulatory efforts.

- The SWRCB developed Model Criteria for Groundwater Monitoring to assess potential impacts to groundwater from oil well stimulation treatments, including hydraulic fracturing (fracking). In accomplishing this, the SWRCB Board sought the advice from EJ groups. These EJ groups were part of the public stakeholder process and provided substantive feedback and input on the Model Criteria. Use of the Model Criteria will help to prioritize groundwater monitoring that is or has the potential to be a source of drinking water.
- The SWRCB has also been working with the Department of Conservation (Division of Oil, Gas, and Geothermal Resources) to assess any potential threats to public health or water quality associated with Underground Injection Control wells. The SWRCB has been working to identify water supply wells located in the vicinity of the wells of concern. Water samples have been collected and the results have been provided to the well owners.

Drinking Water Discharge Permit for Small Water Systems

The federal Safe Drinking Water Act and the California Health and Safety Code require water purveyors to have a permit to discharge drinking water into storm drains or other conveyances. The SWRCB adopted a permit in November 2014 to provide permit coverage for these discharges. The permit recognizes challenges posed to small purveyors and disadvantaged communities in complying with permit requirements and does not require water purveyors having fewer than 1,000 connections to enroll in the permit. The permit features reduced permit application fees and no annual fees for operators of small community drinking water systems and focuses on reducing

costs associated with monitoring and reporting. The permit allows expedited approvals for communities needing to drill emergency drinking water wells. In developing the permit, SWRCB conducted focused outreach through organizations representing disadvantaged communities.

Water Rights Assistance for Drought Stricken Communities

Starting in January 2014, the SWRCB increased its outreach, coordination and assistance activities to help those communities hardest hit by the drought and its repercussions. In the Water Rights arena, the assistance has primarily been in the form of approval of urgency changes to water rights, transfers, and new temporary permits to help parties avoid running out of water supplies.

• From January 2014 through May 2015, the SWRCB participated in Tribal-focused drought coordination meetings and calls hosted by the California Office of Emergency Services. These meetings and calls provided updates on current drought conditions statewide including

reporting by and coordination with many communities, cities, counties, Tribes, and other state agencies involved in drought response. In addition, many other drought management activities were pursued within other Board programs as well.

- The SWRCB also developed information sheets on common drought requests involving water rights. The information sheets were designed to assist small local governments, service districts and landowners, with common drought-related water rights requests. The information sheets were consistent with the SWRCB's efforts to work cooperatively and diligently with water users throughout the state to find appropriate and timely solutions to urgent, drought related water needs.
- During 2014, the California Department of Public Health maintained a list of public water systems at risk of running out of supply in immediate future. With the transfer of the Drinking Water Program to the SWRCB, that responsibility moved to the State Board. The SWRCB provided input on water rights changes that could be sought to assist a community at risk of running out drinking water supplies.

An example of how the Water Rights program has assisted an at-risk community is found in the City of Montague, a disadvantaged community in Shasta County. SWRCB staff worked closely with a number of state and federal agencies to resolve the situation. In June 2014, the SWRCB issued an Urgency Change Order to Montague Water Conservation District's water right permit. The Order allows temporary changes to the permit's place and purpose of use to supply water to the City, points of diversion and method of diversion



DROPS

Nearly half of the DROPS funds (\$12 million plus) were awarded to 100% Disadvantaged Schools. A Disadvantaged School is one where at least 80% of the students are eligible for the Free or Reduced Price Meals program as defined by the California Department of Education, or for Tribally subsidized meals, or the National School Lunch Program. As for "100% Disadvantaged Schools", every school in the application had to meet the criteria of Disadvantaged School. A minimum amount of funding match was required and was determined by the school district size. All DROPS projects are required to be completed by March 31, 2019.

including a new diversion from the Shasta River. The Order provided the City of Montague with a reliable source of water.

Water Quality Certification Program

This SWRCB program involves the issuance of water quality certifications under Section 401 of the Clean Water Act to ensure the projects comply with water quality standards and other appropriate state law. The Certification Program covers certifications for Federal Energy Regulatory Commission hydropower projects and certifications associated with diversions of water. Consideration is given as to whether a project may cause additional impacts to communities that are affected by, or particularly vulnerable to, environmental impacts related to air and water pollution.

- Since 2012, the SWRCB has coordinated with Yurok and Karuk Tribe representatives on PacifiCorp's Klamath Hydroelectric Project. In April 2013, SWRCB members and staff visited with the five Klamath River Tribes (Hoopa, Karuk, Resighini, Yurok, Quartz Valley) to better understand their views and concerns related to the Klamath Hydroelectric Project and water quality in the region. In June 2015, SWRCB staff collaborated with the Karuk Tribe representative on comments for PacifiCorp's Iron Gate Dam Intake Barrier Water Quality Monitoring Plan.
- The SWRCB received comments from Tribes regarding its draft environmental impact report for the Upper North Fork Feather River Hydroelectric Project. Tribes included were Greenville Rancheria, Maidu Cultural and Development Group, Maidu Summit Consortium, and the Susanville Indian Rancheria, all affiliated with the Maidu Tribe. The SWRCB's main concern is the Maidu's belief that there are cultural resources, historical burial sites, near the Pratville Intake, which may be disturbed under some alternatives evaluated in the draft environmental impact report. SWRCB staff had conversations with Maidu Tribal representatives to obtain additional information that the SWRCB can consider as it moves forward with the environmental impact report and water quality certification.

The federal Bureau of Reclamation established a pilot plan to reintroduce salmon above Shasta Dam. SWRCB staff is working with the Winnemen Wintu Tribe on its concerns related to the Pilot Plan. The Tribe has several specific concerns including: 1) use of genetic stock from the Rakaia River (rather than the Bureau of Reclamation's proposal to use Sacramento River Chinook) and 2) lack of representation on the Fish Passage Steering Committee. SWRCB staff and other agencies will continue to meet with the Tribe to address their concerns.

In December 2013, the SWRCB issued a water quality certification for the Lewiston Community Services District's Water Supply Project. The District's water supply system serves 40 connections including a 22-space trailer park and a hotel/restaurant, with a service area of approximately 150 people. The District was experiencing challenges meeting the federal arsenic maximum contaminant level of 10 parts per billion in its drinking water. The District was awarded a grant from the California Department of Public Health (grant program now within the SWRCB) to construct the project, which consisted primarily of construction of an infiltration gallery in the Trinity River and associated piping.

Technical Assistance

The SWRCB executed contracts with the Rural Community Assistance Corporation, California Rural Water Association, and Self Help Enterprises to provide technical assistance related to drinking water and wastewater. Eligible activities include: preparation of financial assistance applications, performance of compliance audits and troubleshooting to address permit violations or improve operation, review proposed project alternatives to assist in identifying low-cost, sustainable approaches, and conducting community outreach, awareness, and education.

Currently, 135 small community water systems, (population of 10,000 or less) and 46 small communities (population of 20,000 of less) with wastewater issues are receiving technical assistance via the Drinking Water and Clean Water State Revolving Fund's technical assistance

contracts. The most frequent types of assistance for both water and wastewater are rate studies, preparation of funding applications, and technical, managerial, financial capacity assessments for water systems and similar capacity assessments/assistance for wastewater, and wastewater treatment plant operator training.

Technical Assistance to Small Communities

Category	Type of Assistance Provided		
Drinking Water	200 small water systems were provided assistance		
	12 income surveys		
	74 online classes held with 2,600 attendees		
	41 on-site classes held with 1,073 attendees		
Wastewater	50 communities assisted		

Funding Programs

• Funding for Emergency Drinking Water Needs: In March 2014, Governor Brown approved an emergency drought relief package to take effect immediately. As a result of the Governor's action, the SWRCB approved \$6 million in funding from the Cleanup and Abatement Account to provide interim replacement drinking water for economically disadvantaged communities with contaminated water supplies. These communities rely on groundwater, much of which is contaminated by various pollutants, including nitrate, arsenic, uranium, and perchlorate as well as coliform bacteria and fluoride. Many of these pollutants exceed the Maximum Contaminant Levels established for the protection of human health. Eligible entities included public agencies, not-for-profit water districts, not-for-profit organizations and Tribal governments. Eligible projects included bottled water, vending machines, point of use devices (for example, filtration), hauled water, wellhead treatment and planning. No funding match was required as all funded projects were in disadvantaged communities.

In an effort to distribute funds as quickly and efficiently as possible, the SWRCB coordinated with the Regional Water Boards, the California Department of Public Health district offices, the California Office of Emergency Services, EJ groups and community assistance groups to identify those disadvantaged communities that are most at-risk and would benefit from financial assistance. All grantees are disadvantaged communities and no funding match was required. The emergency water supplies were made available to households, schools, community buildings, and parks. In March 2015, Governor Brown approved a \$1 billion emergency drought relief package to take effect immediately. Those funds will be reported on in a future report for community projects.

- Funding for School-Based Water Conservation Efforts: The SWRCB developed a new program in response to Governor Brown's Drought State of Emergency issued in January 2014. Known as the Drought Response Outreach Program for Schools or "DROPS", the program provided more than \$30 million in funds to 30 school districts and institutions throughout California to educate students and create on-campus projects relating to stormwater capture and water conservation. Grants were funded through unallocated funds from Propositions 13, 40 and 50. Funded projects are designed to reduce stormwater pollution and provide multiple benefits, including water conservation, water supply augmentation, energy savings, increased awareness of water resource sustainability and reduced dryweather runoff. All project applicants were required to include an education and outreach component to increase student and public understanding of the project's environmental benefits and the sustainability of California's water resources. Students can share what they learn with their families, creating more educated youth and entire water-wise households.
- **Tribal Consultation Regarding Proposition 1**: Proposition 1, Water Quality, Supply, and Infrastructure Improvement Act was approved by California voters in late 2014. The Proposition

authorizes \$7.545 billion in general obligation bonds for state water supply infrastructure projects such as public water system improvements, surface and groundwater storage, drinking water protection and advanced water treatment technology. In mid-2015, the SWRCB, along with the California Water Commission, the Department of Water Resources, and the California Department of Fish and Wildlife held a two day consultation with California Tribes regarding funding opportunities available in each of the categories covered by the Proposition.

- Funding for Groundwater Protection: Among other things, Proposition 1 provides grant monies to help fund groundwater quality projects in EJ communities. In the future, through the Groundwater Sustainability Program, the SWRCB will be allocating at least 10 percent of the \$800 million grant appropriation to pay for groundwater quality projects serving severely disadvantaged communities. Grant funding will used for eligible projects including treatment and remediation of groundwater that serves as a drinking water source and prevention of groundwater contamination. Monies may also be used for planning and monitoring necessary for the design, selection, and implementation of the projects. The program also provides for a cost share reduction or waiver for disadvantaged communities or economically distressed areas. Through the Site Cleanup Subaccount, the SWRCB will allocate at least 10 percent of the \$19.5 million (anticipated fiscal year 2015/16) annual grant appropriation to pay for groundwater quality projects serving severely disadvantaged communities. Grant funding will be used for eligible projects including remediation to remove harm or threat to human health, safety, and the environment from surface or groundwater contamination.
- **Marketing and Outreach:** SWRCB staff participated in 14 funding fairs over the last two years to provide the public and infrastructure development professionals current information regarding funding options for different project types. The fairs have been coordinated by the California Financing Coordinating Committee and other entities. Funding fairs are held every spring in multiple, rotating locations in order to reach as many interested communities as possible.

Enforcement

The SWRCB's Office of Enforcement exists to promote enforcement of water rights and water quality laws to ensure that violations are properly investigated, documented, and enforced against to promote compliance, deter future violations, and protect water quality, water supply, and water availability for Californians.

- The SWRCB issued a new enforcement policy in mid-2013, the purpose of which was to allow staff to expend its limited resources in ways that openly address the greatest needs, deter harmful conduct, protect the public, and achieve maximum water quality benefits.
- Office of Enforcement staff assisted the Regional Water Boards with investigations which led to the issuance of replacement water orders and SEPs providing alternative water supplies in several disadvantaged communities and severely disadvantaged communities. Examples of these communities include: San Lucas (Monterey County), Rodriguez Labor Camp (Fresno County), Alpine Labor Camp (Monterey County), and West Goshen (Tulare County), and the I-99 Corridor of City of Fresno.
- SWRCB enforcement staff has also worked closely with clean water advocates including Community Water Center and California Rural Assistance League to identify disadvantaged communities and severely disadvantaged communities whose water supply has been impacted by nitrate contamination, then seeks to negotiate and/or order the provision of clean, potable replacement water. Enforcement staff also assisted the Central Valley Water Board with developing a programmatic supplemental environmental project with the Rose Foundation to streamline funding for supplemental environmental project in disadvantaged communities and severely disadvantaged communities.

Training for Tribes

• In late 2014, the SWRCB held a day-long training for Tribal representatives regarding the programs and activities of the Water Boards. The purpose of the training was to increase

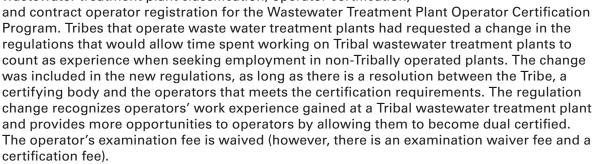
Tribal awareness of the Water Boards' structure, legal framework and program parameters to make their interactions with Water Boards staff more productive and effective. Training covered water rights, water quality and financial assistance programs. The training included an afternoon expo that allowed Tribal members to work with various Water Board databases using work stations set up for that purpose. Each workstation was overseen by staff with expertise in that database. Each of the 70 Tribal members in attendance also received a compendium of information regarding each program covered during the program.

California Indian Tribes Funding Brochure

The SWRCB published a brochure outlining several financial programs to assist federally recognized California Indian Tribes to help protect and improve California's waters. Loans and grants are available for constructing municipal sewage and water recycling facilities, improving public water systems, remediation for underground storage tank releases, watershed protection projects, and for non-point source pollution control projects. Funding for the loans and grants programs primarily comes from bonds passed by voters and monies provided by the federal government. Each program listed below has its own guidelines, application process and funding cycle. The brochure has been distributed to Tribes and to Water Boards staff who work with Tribes.

Wastewater Treatment Plant Operator Certification Program Amended Regulations

The SWRCB revised its regulations during 2014 regarding wastewater treatment plant classification, operator certification,

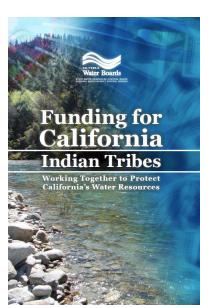


Beneficial Uses & California Tribes

Beneficial uses are an important part of establishing regulations to protect surface waters. Designation of beneficial uses is integral to providing protection from pollution and nuisance that may occur as a result of waste discharges. The Water Boards utilize about 26 standardized beneficial use definitions. New beneficial use categories, or sub-categories, may be added by individual Regional Water Boards through a Basin Plan amendment. In 2011, the North Coast Regional Board adopted definitions for Native American Cultural and Subsistence Fishing. The SWRCB will be considering definitions that will be implemented statewide through the Water Quality Control Plan for inland surface waters, enclosed bays, and estuaries of California.

Language Translation

Section 13167.6 of the Government Code requires that State and Regional Board meeting agendas be translated into Spanish. The law ensures that residents whose primary language is Spanish are afforded the same opportunity as English speakers to be aware of items being discussed at State and Regional Boards meetings. Approximately 10 agendas are translated each month.



During the last two years, over 1,400 pages of materials were translated into Spanish, the bulk of which were agendas. Beyond agendas, the SWRCB fulfilled requests from Water Board organizations to translate other key material into Spanish for use at workshops, hearings and community outreach events. In addition, over 80 pages of materials were translated into other languages including Korean, Vietnamese, Traditional Chinese and Tagalog for use by Water Board organizations.

Training for Water Boards Staff

During 2013-2015, the SWRCB continued to provide staff with training to increase their ability to work effectively with EJ communities. Training was offered on a variety of highly technical topics, but in addition, training was offered on meeting facilitation, environmental statistics, citizen monitoring, public speaking and enforcement. In addition, tours of EJ communities were conducted to better familiarize technical staff and Board Members with water quality and drinking water issues negatively impacting those communities. Toured communities included East Porterville, Orosi (Tulare County) and San Jerardo (Monterey County).

Briefing for Water Quality Coordinating Committee

The October 2013 meeting of the Water Quality Coordinating Committee composed of State and Regional Water Board Members included an EJ discussion to improve what the Water Boards were doing to address disadvantaged communities and Tribal concerns. Existing regulatory tools were identified that could help the Water Boards work on EJ 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, and cumulative impacts. The Regional Boards were encouraged to examine activities in their individual regions to improve EJ outreach and participation. The meeting led to development of an educational public workshop item for the SWRCB.

Accomplishments – Regional Water Boards

The Regional Water Boards are the first line of defense in the protection of the state's water quality. While the Regional Boards work in concert with the SWRCB programs and staff, the Regional Boards have taken significant actions on their own authority to address EJ issues. These actions include the identification of specific staff that focus on EJ issues and the building of relationships with EJ communities within the Region's geographic area. Work performed by these liaisons has resulted in the Regional Boards having a better understanding of EJ issues and concerns. In turn, the EJ communities now have a better understanding of how to work more effectively with their Regional Water Board. Some examples are listed below.

Region 3 – Central Coast

- The Central Coast Water Board has assigned the Vice Chair to provide regular updates on EJ activities at each Board Hearing, as a Board Member liaison to the EJ community. This provides an opportunity for the Board to more fully engage in EJ issues affecting the region on a regular basis. Additionally, a Senior Engineering Geologist is also assigned to serve as the EJ Coordinator. The EJ Coordinator's primary responsibility is to maximize the Regional Water Board's internal coordination of its regulatory programs that have a direct nexus to EJ issues. The Coordinator also works to create meaningful public participation opportunities for members of the affected disadvantaged communities and community capacity building to allow communities to be effective participants in Board decision-making processes.
- In the Central Coast Region, the primary EJ issue is safe drinking water for disadvantaged communities affected by nitrate contamination in agricultural areas. In February 2015, the Environmental Justice Coalition for Water coordinated with Regional Board staff to conduct an EJ/Safe Drinking Water Tour of the Salinas Valley. The EJ Tour created the opportunity for staff and Board members to meet with EJ representatives and community members to discuss the challenges associated with the different facets of drinking water contamination

and EJ issues in the greater Salinas Valley and Monterey County. Tour attendees included Central Coast and SWRCB members and staff, representatives from Environmental Justice Coalition for Water, California Rural Legal Assistance, Communities Organized for Power in Action, UC Hastings Social Enterprise & Economic Empowerment Clinic, San Jerardo Cooperative, San Vicente Mutual Water District, and Community Foundation for Monterey County, as well as individual community residents.

- The Central Coast Water Board provided approximately \$118,000 in Pacific Gas and Electric (PG&E) settlement funds to grantees to assist individuals and small communities affected by nitrate in groundwater in the Salinas Valley in obtaining immediate interim replacement safe drinking water in agricultural areas affected by nitrate contamination. Grants were awarded to the Environmental Justice Coalition for Water and the Coalition for Urban, Rural, Environmental Stewardship to assist disadvantaged communities and limited resource farmers, respectively.
- The Regional Water Board has created a program web page for environmental justice. The page is used to provide information and resources available for disadvantaged communities.

Region 4 – Los Angeles

- The Los Angeles Water Board has assigned a full time Public Participation Specialist to oversee the Board's work related to EJ. The Public Participation Specialist's primarily responsibility is to coordinate outreach efforts at cleanup sites and provide consulting to the Board's technical staff involved in the many cleanup sites located throughout the county.
- The Regional Water Board approved the Phase 1 Remedial Action Plan –better known as the "cleanup plan" for the Ujima site that reflects several considerations, including public comment. Implementation of the approved Remedial Action Plan cleanup plan included excavation of limited areas of the site, along with the use of a cleanup technology known as soil vapor extraction for specific areas. Soil vapor extraction is the process of pulling out the vapor found in the spaces between soil particles (referred to as soil vapor) in order to remove volatile organic compounds (VOCs). Overall performance evaluation suggests that concentrations of methane and benzene in probes influenced by the soil vapor extraction system have shown downward trends. During the six months of soil vapor extraction operation (i.e., October 2014 through June 30, 2015), the total estimated VOCs removed is 164,511 pounds and the total estimated methane removed is 17,436 pounds.
- The Los Angeles Groundwater Restoration Group was driven by EJ issues brought forth by local EJ activists. Regional Water Board's Executive Office, Assistant Executive Officer and staff participated with local and state agencies in a workgroup to strategize about how to address their concerns. The workgroup has held several productive and informative "groundwater convenings", and the SWRCB formulated the well investigation tasks for the Maywood Pilot Project, which is wellhead treatment project at the Maywood Mutual Water Company No. 3 located in an EJ community.
- The Regional Water Board participated in the Los Angeles EJ Action Committee, composed of EJ activists and representatives from local and state agencies. The Regional Board is a member of an advisory committee designing the agenda for the group's upcoming second annual EJ Symposium.

Region 5 - Central Valley

• The Central Valley Water Board has assigned a Water Resources Control Engineer in its Fresno office to serve as a liaison to the EJ communities within their geographic area served by the Fresno office. The liaison participates in separate monthly IVAN network meetings for Fresno, Kern, and Kings Counties, follows-up on and responds to water quality complaints lodged by the EJ communities, briefs IVAN network groups regarding future Central Valley Water Board meetings and hearings that may be of interest to the respective group members. In addition, the liaison assists in Spanish translation of notices for hearings and assists with verbal translation for Central Valley Water Board staff when communicating with community members as needed.

• The Regional Water Board has followed up on several water quality complaints lodged by the EJ community at the IVAN meeting, including complaints related to standing water in dairy corrals, unauthorized discharge of process wastewater to public roads, and nuisance complaints regarding the dumping of coal from rail cars along railroad tracks. A more recent complaint related to an unauthorized discharge from Los Gatos Tomato Plant in Huron, Fresno County. The rinse water from the plant is used to irrigate tomato fields located adjacent to the community of Huron. Community members complained that irrigation canals carrying plant wastewater located near some residences were an odor nuisance source. In addition, some children entered the small canal and had to be treated for rashes. The Regional Board worked with the discharger to install warning signs along the canal. In addition, a review of the waste discharge requirements for the facility indicated that discharge of wastewater within 100 feet of residences was prohibited. The Regional Water Board worked with the discharger to install discharge away from any residences.

Region 6 - Lahontan

- The Lahontan Water Board has designated their Assistant Executive Officer as the EJ liaison. The Assistant Executive Officer is a Principal Water Resource Control Engineer with extensive knowledge of the Region and its needs.
- There are about 50 economically disadvantaged communities spread over ten counties and 10 Native American Tribes in the Lahontan Region and even more disadvantaged people living in remote and isolated locations. In mid-2014, the Lahontan Water Board conducted an internal review of how EJ is conducted in the region and examined new ways to improve its efforts to benefit the disadvantaged communities in the region. The review generated a number of recommendations for the Regional Water Board's consideration to increase the Board's effectiveness in addressing EJ issues.
- The Lahontan Water Board hosted a June 2014 public workshop in Bishop, California and described its current EJ efforts. The workshop helped raise the visibility and identify the importance of EJ as a policy to ensure fair treatment of disadvantaged communities and Tribes in everyday work. Board members and staff learned more about EJ challenges and limited resources within the Lahontan Region. Several ideas were presented to increase disadvantaged community 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 Water Boards policies as a result of the meeting. The Lahontan Water Board transmitted its recommendations on Environmental Justice Program Implementation in a report to the SWRCB.
- Lahontan Water Board members and staff participated in the Inyo-Mono Disadvantaged Community & Tribal Water Conference held in June 2014 in Bishop and later joined a tour of the Big Pine Paiute water system in Lone Pine, California.
- Lahontan Water Board held an interactive workshop in May 2015 to collaboratively discuss public concerns regarding the draft Cleanup and Abatement Order against PG&E requiring hexavalent chromium cleanup in the groundwater. Hinkley residents, PG&E, community consultants, and Water Board staff participated in several small groups to craft solutions to several key controversial issues.

Region 7 – Colorado River Basin

• An Environmental Scientist serves as the EJ liaison. In this role, the liaison will enhance the communication between the Regional Water Board and local communities and share needed

information and resources, serve as a resource to the community and to Regional Water Board staff to provide answers to questions related to public participation and EJ.

- Regional Water Board staff has served as a "Government Problem Solver" for the IVAN Online
 environmental reporting web site and is developing training and reference materials for
 community problem solvers. Staff will work to help ensure that IVAN reporting system and
 CalEPA complaint system work together rather than duplicating or even hindering the other.
- Regional Water Board staff has collaborated with various governmental agencies and community groups to correct deficiencies in onsite wastewater treatment and disposal systems serving low-income mobile home parks, primarily in the eastern Coachella Valley.
 EJ Staff regularly works with Pueblo Unido Community Development Corporation and other agencies on issues at St. Anthony's Mobile Home Park and to help ensure appropriate response to resident concerns, monitor improvement project progress and collaborate with other agencies on providing resources and assistance to this community.
- Between July 1, 2013 and July 1, 2015, the Regional Water Board "verified 30 of the 44 IVAN reports submitted to Coachella IVAN. 10 of the 30 verified reports were under "Water Contamination" category. In this time period, Regional Board staff forwarded at least 10 reports to responsible agencies to facilitate a prompt response to environmental health complaints; by forwarding these reports, Region Water Board staff has facilitated response to illegal dumping, a sewage spill, standing water issues, and water waste. For reports that did not require any agency response, staff confirmed that the incident did not pose a threat and provided updates or information though comments on the reports or at monthly EJ Taskforce meetings.
- Regional Water Board staff has served as a Government Co-Chair in the monthly Coachella Valley EJ Enforcement Task Force meetings, which address environmental issues reported through the IVAN website. In this role, staff has helped manage and facilitate the meetings. Staff is developing meeting management training and reference materials for community members in order to support a community-driven approach.
- Regional Water Board staff is also attending monthly Imperial County EJ Enforcement Taskforce meetings and the quarterly Riverside County Housing Review Committee meetings whose focus is on addressing low-income housing issues in the Coachella Valley.
- The Regional Water Board has created a program web page for Education and Outreach, which includes EJ. The page is used to provide information and resources available for disadvantaged communities and site opportunities for education and outreach on water quality issues.

Goals

Ensure Safe Drinking Water for Disadvantaged Communities

A SWRCB report, completed in 2013, identified 680 communities that rely on a contaminated groundwater source for their drinking water supply, with arsenic and nitrate being the most frequently detected contaminants. Although most of the identified communities are able to treat their water before it is delivered to consumers, some communities may be unable to treat their water and can deliver unsafe drinking water to consumers. Results from the report will be used to identify environmental justice communities in need of additional outreach and assistance in addressing drinking water quality problems. The SWRCB intends to maximize the use of the State Revolving Fund, and providing technical, managerial, and financial assistance to resolve problems that small public water systems have in providing safe, reliable drinking water to their customers.

Identify Drought-Vulnerable Public Water Systems and Prepare for the Future

As the drought intensifies here in California, several communities across the state have faced the reality of vulnerable drinking water supplies. During the ongoing extreme drought conditions in the state, the SWRCB has identified public drinking water systems that may be vulnerable

to acute drinking water shortages due to drought. The SWRCB will continue to monitor these systems to help prevent or mitigate any anticipated shortfalls in supply, provide assistance in identifying and permitting alternative water supplies, and secure alternative sources of water when needed. In addition, the SWRCB will continue to collaborate with others agencies to develop long term solutions.

Complete Development of an Environmental Justice Roundtable

The Water Boards maintain a roundtable on each of its major regulatory programs and initiatives. During 2015, the Boards instituted an EJ roundtable to facilitate the sharing of information and document progress regarding its EJ efforts. The Roundtable is composed of EJ liaisons from each of the nine Regional Water Boards as well as the SWRCB. These liaisons have been designated to help guide EJ efforts within their organizations. During 2016, the Roundtable will formalize a regular meeting schedule and sponsor an EJ Summit.

Develop a Tribal Consultation Policy

In 2015, to improve and strengthen its policy for working with Tribal governments, CalEPA adopted the Policy on Consultation with California Native American Tribes. This policy will serve to guide CalEPA and all its BDOs in their daily operations to work with California Indian Tribes in a knowledgeable, sensitive, and respectful manner. During 2016, the Water Boards will adopt its own Tribal Consultation Policy to provide additional guidance to its staff in addressing Tribal issues in its regulatory programs. In addition, once adopted, the Water Boards will provide staff with training so that scope and expectations pursuant to the policy are clear.

Complete Tribal-Related Beneficial Uses Definitions for Basin Plans

Also known as water quality plans, the basin plans contain the water quality objectives, policies, regulations and guidance for the protection of surface and ground waters within each of the nine Regional Water Board boundaries. Up until now, there has not been a statewide beneficial use designated for subsistence fishing or cultural uses of water. The SWRCB is currently developing beneficial use definitions to address concerns from Native American Tribes and communities who depend on fish for subsistence. Additionally, definitions for California Indian Tribal Traditional and Cultural uses are being developed to acknowledge uses of sacred waters by Native American Tribes for ceremonial purposes. Similar definitions have been adopted into the North Coast Regional Water Board Basin Plan, but are not used throughout the state. In order to achieve this consistency, the definitions would be adopted and implemented statewide through the Statewide Mercury Program. The beneficial uses definitions for the designation of the Tribal–related beneficial uses will be completed during 2016 with the assistance of Native American Tribes as well as interested parties.

Implementation of the Human Right to Water

With the adoption of the Human Right to Water law (Water Code, Section 106.3) California took on the challenge to ensure its residents have access to clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes. In March 2015, staff made a presentation to the SWRCB outlining actions the nine Regional Boards and the SWRCB either are currently taking or proposed for further development to satisfy the requirements of the law. Specifically, agencies are directed to consider the Human Right to Water when revising, adopting, or establishing pertinent policies, regulations, and grant criteria. During that meeting, the State directed staff to prepare a resolution to ensure statewide consistency when it comes to implementation of the law. In the course of developing the resolution, the SWRCB has solicited input from EJ communities and other interested parties. A resolution on the Human Right to Water was approved by the SWRCB in February 2016.

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• State Water Resources Control Board

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