

2016–2018

Environmental Justice Program Update





Office of the Secretary , CalEPA
California Air Resources Board
Department of Pesticide Regulation
Department of Resources Recycling and Recovery
Department of Toxic Substances Control
Office of Environmental Health Hazard Assessment
State Water Resources Control Board

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for Environmental Protection

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



The mission of the California Environmental Protection Agency is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality.

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Pursuant to the provisions required in Public Resources Code Section 71115, this report describes significant programmatic efforts undertaken by CalEPA and our boards, departments, and offices, to address environmental justice challenges between the years 2016-2018. A complementary *StoryMap* is available.

Welcome



In response to persistent and challenging pollution burdens, California has developed some of the most advanced and ambitious environmental regulations in the country, including regulatory

requirements to address environmental injustice.

Pollution burdens are not equally distributed—many communities of color and low-income communities still face disproportionate exposures due to pollution in air, water, and soil, and from pesticides. The legacy of segregated land use policies and contemporary effects of today’s housing shortage compound persistent environmental injustices. CalEnviroScreen data shows that when it comes to pollution burdens across our state, racial and ethnic disparities continue to persist. Latinx and African American communities and, in particular, children, continue to face disproportionately higher pollution burdens than their non-Hispanic white counterparts. Addressing these disparities demands that we apply a

lens of racial equity to our work and that we collaborate to remedy cross-media problems. Pursuant to the provisions required in Public Resources Code Section 71115, this report describes significant programmatic efforts undertaken by CalEPA and our boards, departments, and offices, to address these challenges between the years 2016-2018. Highlights of these efforts and related activities include:

- The State Water Resources Control Board’s work to consolidate 96 small water systems, delivering access to safe, clean and affordable drinking water for 29,113 people.
- The Department of Toxic Substances Control’s creation of the Workforce for the Environmental Restoration in Communities program--a local workforce development and job training program to train residents and promote local hiring in communities near the former Exide Technologies facility in Vernon, CA.
- CalEPA’s Environmental Justice Enforcement Task Force responding to local concerns by bringing together state, local, and federal enforcement programs to conduct hundreds of facility inspections, and by taking enforcement actions to return facilities to compliance in Fresno, Boyle Heights and Pacoima in Los Angeles, East and West Oakland, the city of Pomona, and Imperial County.
- CalEPA’s Environmental Justice Small Grants Program awarding \$2.6 million in grant funding to over 50 community-based organizations and federally recognized Tribal governments addressing environmental justice issues.

- The Department of Pesticide Regulation developing notification requirements for pesticide applications around schools and licensed day care centers in response to public concern about pesticide drift affecting children.
- The California Office for Environmental Health Hazard Assessment's update to the California Communities Environmental Health Screening Tool, or CalEnviroScreen, which identifies communities in the state with the highest pollution burdens and vulnerabilities, to its 3.0 version.
- The California Air Resources Board's development and implementation of a Community Air Protection program in response to the signing of Assembly Bill (AB) 617 (C. Garcia, 2017) – marking a significant step in transforming California's air quality programs to address air pollution disparities at the neighborhood level.

With all of these efforts, there is still much more to do, and much we've accomplished so far in 2019. Since the start of Governor Newsom's administration and my tenure at CalEPA, we:

- Awarded an additional \$1.5 million in environmental justice small grants to community groups and tribes across the state;
- Started to make progress delivering safe, clean and affordable drinking water statewide, through implementing Senate Bill (SB) 200 (Monning, 2019), the State's safe and affordable drinking water fund;
- Began the process to transition away from some of the state's more harmful pesticide products, and toward less harmful alternatives, to

- protect health and the environment;
- Worked closely with key stakeholders to ensure that our management of waste, including toxic waste, is comprehensive, sustainable, and improved; and
- Continued to implement our Plan to Achieve Racial Equity through our expanded participation in the Government Alliance on Race and Equity Capitol Cohort in 2019.

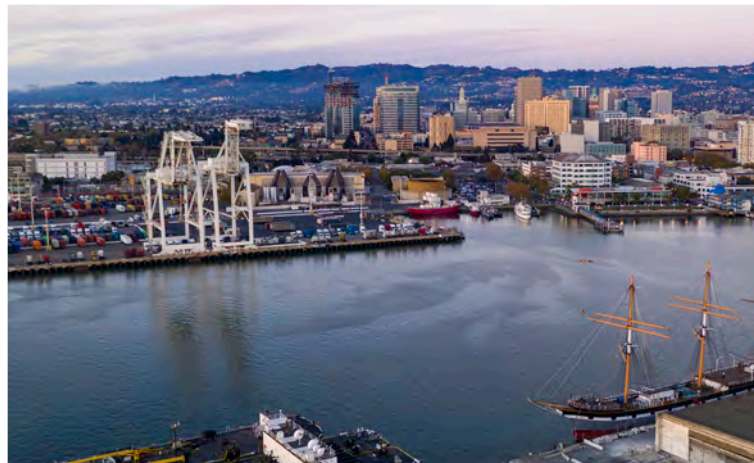
As we continue to tackle these and other challenges, striving toward environmental justice remains a central priority of mine. I look forward to continuing to share our successes as we achieve them, and, most importantly, to demonstrating our progress through measurable results and improvements in health and environmental quality in our most pollution burdened, vulnerable, and disadvantaged communities.

Sincerely,



Jared Blumenfeld
Secretary for Environmental Protection

Introduction



California is a state rich in natural resources, economic development, and social and environmental benefits. As the most populous state in the nation, with 40 million residents and the world's fifth largest economy, the state also bears burdens from industrial activities. These activities disproportionately impact residents and communities across the state's rural and urban areas.

Environmental justice (EJ) recognizes that many communities in California, including communities of color and low-income communities, continue to bear disproportionate pollution burdens, while also facing serious socioeconomic and health-related vulnerabilities and challenges. The principles of EJ call for fairness, regardless of race, color, national origin or income, in the development of laws and regulations that affect every community's natural surroundings and the places people live, work, play, and learn. California was one of the first states in the nation to codify EJ in statute. State law defines *environmental justice* to mean "the fair treatment and meaningful involvement of people of all races, cultures, incomes and national origins with respect to the development, adoption, implementation and enforcement of environmental laws, regulations, and policies."

In 1991, California's environmental authority was unified in a single Cabinet level agency – the California Environmental Protection Agency's (CalEPA's). Our mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality. We fulfill our mission by developing, implementing and enforcing environmental laws that regulate air, water and soil quality, pesticide use and waste recycling and reduction. Our goal to deliver EJ across the State informs all of our activities, and our mission.

The Office of the Secretary heads CalEPA, overseeing and coordinating the activities of one office, two boards, and three departments. These include: the California Air Resources Board (CARB); the Department of Pesticide Regulation (DPR); the Department of Resources Recycling and Recovery (CalRecycle); the Department of Toxic Substances Control (DTSC); the Office of Environmental Health Hazard Assessment (OEHHA); and the State Water Resources Control Board ("Water Boards," which collectively refers to the State Water Resources Control Board and the nine semiautonomous Regional Water Quality Control Boards).

Together, we face today's environmental challenges and work towards improving pollution and health outcomes in our most vulnerable communities.

A central goal of CalEPA's activities is to accord the highest respect and value to every individual and community. Across the agency, we strive to develop and conduct our public health and environmental protection programs, policies, and activities in a manner that promotes equity and affords fair treatment, accessibility, and protection for all Californians, mindful of persistent inequities across racial, cultural and socio-economic demographic characteristics, age, and geographic location.

This report to the Governor and the Legislature builds upon previous reports and describes actions taken to implement EJ principles and Public Resources Code Sections 71110-71116. The report demonstrates our shared vision for our EJ efforts to achieve results for communities across the State.



Environmental Justice & Equity



Institutionalizing EJ and equity is critical to serving the State of California’s most vulnerable and pollution-burdened communities. During the reporting period, CalEPA worked to institutionalize EJ and equity into our organization, by investing in our agency-wide capacity to tackle the toughest environmental challenges. This is key to making meaningful progress on the ground.

Legislative Mandates Call for Cumulative Impacts Consideration in CalEPA’s Regulatory Work

Legislation plays a vital role in institutionalizing EJ and equity. A huge step forward for EJ in California happened from 2016-2018: legislation mandated that CalEPA incorporate cumulative impacts into its work.

What does this mean? Exposure to pollutants is often measured by looking at each pollutant and exposure separately as required by most regulatory approaches. This method misses a vital way of looking at pollutant exposure - many people, often with specific vulnerabilities (such as age, income or health challenges), are regularly exposed to multiple pollutants cumulatively and simultaneously.

The term “cumulative impacts” reflects the reality that individuals are exposed to

multiple stressors that impact the quality of their lives and their environment. CalEPA works to address cumulative impacts by comprehensively using its programs and authorities across all of its boards, departments, and offices. From 2016-2018, the Legislature championed incorporating cumulative impacts tools and assessment into CalEPA’s regulatory work, specifically through AB 617 (C. Garcia, 2017) and SB 673 (R. Lara, 2015). These two laws require CalEPA, and CARB and DTSC specifically, to address air pollution and hazardous waste exposure for vulnerable communities, bearing in mind the effects from other cumulative sources of pollution.

To implement both of these laws, DTSC and CARB collaborated with a team of prominent University of California researchers under a joint contract to help evaluate methods for assessing cumulative impacts and community vulnerability in the regulatory development process.

AB 617 – Community Air Protection

The landmark AB 617 requires new, community-specific actions to reduce exposure to air pollution in disproportionately burdened

communities across the state. Although we often think of air quality in terms of large air sheds, air pollution hotspots are more localized than previously imagined, often occurring at the neighborhood or block level. For example, it may not be so surprising that a block near a freeway on-ramp, exposed to idling vehicles and big-rigs, may have worse air quality than a street a few blocks away. That same community may also face additional exposures to pollution from large-scale industrial operations, and/or a high concentration of other air pollution sources like metal foundries and scrap metal recycling operations, among others. AB 617 requires an assessment of the cumulative impacts of exposure to multiple sources of air pollution in disadvantaged communities across the State, along with the selection of communities for additional targeted action through development and implementation of community emissions reduction programs and community air monitoring.

SB 673 – Cumulative Impacts in Permit Criteria

Combined environmental exposures from multiple pollution sources also often burden communities living near hazardous waste facilities, while those same communities face socioeconomic and health challenges, and vulnerabilities.

Over 60% of hazardous waste facilities are located in or near disadvantaged communities (as reflected by overall CalEnviroScreen scores in the 75th percentile or higher). These communities are often located close to trade corridors, industrial facilities and other sources of pollution. They may face factors such as limited health care access, poor

LOOKING AHEAD

In 2020, DTSC will release a revised version of the SB 673 draft regulatory framework document in response to extensive public dialogue and feedback received in 2018 and 2019 on cumulative impacts and community vulnerability. DTSC will hold a second round of public workshops and stakeholder working groups in Spring 2020 for additional feedback. Workshops will be held in different regions of the state, including in communities near operating hazardous waste facilities. The revised framework document will serve as the foundation for regulatory language.

housing quality, linguistic isolation, lack of access to parks and open spaces and other factors that increase vulnerability.

SB 673 directs the department to update its permitting criteria to consider “the vulnerability of, and existing health risks to, nearby populations” when deciding whether to issue new or modified permits or permit renewals for hazardous waste facilities. This bill was partially implemented during this report’s reporting period of 2016-2018, and requires the consideration of cumulative impacts and community vulnerability in the permitting of certain hazardous waste facilities. Implementing this law provides an important opportunity for DTSC to address long-standing EJ concerns regarding the location, operation, and expansion of facilities handling hazardous waste. The bill also calls for consideration of minimum setback distances from sensitive locations including schools and childcare facilities.

In order to strengthen health and community protection as well as

respond to SB 673, DTSC released the “*SB 673 Cumulative Impacts and Community Vulnerability Draft Regulatory Framework Concepts*” in October 2018. The concepts outline an approach to include consideration of community vulnerability and cumulative impacts in the permitting process for over 70 operating hazardous waste facilities in California. In developing the proposal, DTSC held stakeholder consultation meetings with community members, business representatives, and state and local agency representatives in Sacramento and Commerce.

Following the release of the proposal, DTSC held regional public workshops to explain the concepts and request public input. The workshops, which DTSC organized in coordination with community stakeholders, took place in Commerce, Lamont, and Oakland. The department also collaborated with California State University Sacramento Center for Collaborative Policy in

planning, organizing, and facilitating the workshops, and to record participants’ feedback. *Presentations and materials from the workshops* are available.

Elevating Equity and Environmental Justice in the Organization

CalEPA’s Commitment to Racial Equity

In 2018, a team of staff and managers representing all of CalEPA joined the *Government Alliance on Race and Equity* as part of the Capitol Cohort, led by the Strategic Growth Council’s and the Department of Public Health’s Health in All Policies Team. Through a year of training and collaboration with over a dozen sister state agencies, the team deepened their understanding of racial inequities and the relationship those inequities have to EJ challenges across our state. The team developed a Plan to Achieve Racial Equity, approved by CalEPA leadership in 2018. The plan’s three goals are to: (1) grow a workforce

DTSC ISSUES SUMMARY OF VIOLATION SCORING PROTOCOL UNDER SB 673

SB 673 also required DTSC to consider a facility’s compliance history in permitting decisions. DTSC developed regulations to implement this requirement from 2016 through 2018. The Violations Scoring Procedure provides a transparent way to evaluate compliance with California’s hazardous waste laws. The regulation establishes a procedure to determine what number and types of violations will lead to permit denial or revocation. It helps the department keep the public informed about facilities in their communities, deters violations, and ultimately it protects communities from environmental harm. The department reached out early in the development phase to conduct informal feedback sessions on the Violations Scoring Procedure criteria with community groups, the regulated community, and legislative representatives. Prior to drafting the regulations, DTSC vetted the proposed regulatory concepts during two workshops in December 2016 to solicit comments from the public. As a result, DTSC made significant changes in the final regulations. The Office of Administrative Law approved the violation scoring procedure regulation in October 2018 as partial implementation of SB 673. When SB 673 is fully implemented, it will strengthen protections for public health and the environment at hazardous waste facilities and increase DTSC’s transparency and accountability.

that better reflects the public we serve, (2) develop a workplace culture where racial equity is valued and (3) improve and increase our efforts to provide information to Californians in languages that all can understand.

CalEPA and its boards and departments have also invested in staff capacity to represent EJ issues, and to improve access to decision making processes. A key step toward institutionalizing EJ is elevating representation of environmental justice and equity perspectives across the Agency. CalEPA looks forward to supporting even more high-level representation of EJ interests in the years to come.

CARB's First EJ Assistant Executive Officer

CARB is charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change. From requirements for clean cars and fuels to adopting innovative solutions to reduce greenhouse gas emissions, California has pioneered a range of effective approaches that have set the standard for effective air and climate programs for the nation, and the world.

A clean and healthy environment is a fundamental right for all California residents. To that end, more can be done to reduce exposure to pollutants and improve the quality of life in California communities facing environmental and economic challenges.

CARB is committed to prioritizing EJ in everything its representatives and staff do. This includes, engaging with community members to provide them with the best possible information about the air they breathe, and working with them to improve air quality in their communities.

In March 2017, CARB's Executive Office appointed Veronica Eady to serve as the state's inaugural Assistant Executive Officer for Environmental Justice, at the Board. Her role is to serve as the primary internal and external contact for CARB on EJ issues and concerns, and she is responsible for providing policy consultation and recommendations to CARB staff. Ms. Eady provides a critical perspective in decision-making during the development and implementation of all major CARB programs, including, for example, AB 617 and the Board's scoping Plan, among others, to ensure that EJ concerns are considered.

DPR Hires Full-Time EJ Liaison

DPR works closely with the County Agricultural Commissioners, advocacy groups, communities, regulated industries, and other parties to incorporate EJ principles into the department's mission, goals, programs, culture, and activities.

Over the past two to three years, DPR has taken steps to strengthen worker safety, to improve its facilitation of meaningful community participation, and to enforce pesticide regulations. Through its strategic planning process, DPR has also noted the importance of achieving EJ as one of the department's significant priorities. The department has also prioritized conducting bilingual outreach to field workers and others who are susceptible to exposures from pesticides.

In 2017, DPR hired Martha Sanchez as a full-time bilingual and bicultural Environmental Justice Liaison. The position reports to the Deputy Director and informs the Director and the executive team on EJ perspectives and principles. Since then, the Liaison has

staffed information booths at community events, presented safety information to fieldworkers, and worked with promotores de salud (health workers). The Liaison has been interviewed on radio and television in Spanish and in indigenous language at Radio Bilingüe and *Radio Indígena*. Her role includes supporting the development of trust at the local level among most advocacy groups and community members, and building partnerships with local County Agricultural Commissioners and advocacy groups. Martha has co-presented at workshops and trainings with numerous advocacy groups and community leaders. She also represents the Department at monthly Identifying Violations Affecting Neighborhoods (IVAN) Task Force meetings and works closely with the director for enforcement to respond to enforcement issues as they arise.

In 2018 DPR highlighted a department-wide EJ Goal (Goal 4) in its *Strategic Plan*.

CalRecycle creates “Team EJ”

CalRecycle brings together the state’s recycling and waste management programs and continues a tradition of environmental stewardship. Through landmark initiatives like the Integrated Waste Management Act and Beverage Container Recycling and Litter Reduction Act, California works toward a society that uses less, recycles more, and takes resource conservation to higher and higher levels. Our state leads the nation with an approximate 65 percent diversion rate for all materials, and today recycling supports more than 140,000 green jobs in California. CalRecycle’s vision is to inspire and challenge Californians to achieve the highest waste reduction, recycling and reuse goals in the nation. Through innovation

and creativity, sound advancements in science and technology, and efficient programs that improve economic vitality and environmental sustainability, we build a stronger California.

With the support of the Director and Executive Team, CalRecycle’s EJ Program Manager started “Team EJ,” in November 2017. The purpose of the team is to integrate EJ into all aspects of CalRecycle’s programs, services, and decision-making processes. The group consists of CalRecycle staff, managers, and executives who meet monthly to work on EJ projects and share information. Due to strong interest, the team has grown to include twenty-seven staff volunteers per division. Team EJ serves as a sounding board and work team for the EJ Program Manager, the program, and its projected course. These staff volunteers offer support, work on program implementation sub-teams such as the Brown Bag Series, offer policy perspectives and assist with policy implementation. Team EJ is working on expanding funding from *Supplemental Environmental Projects* (SEPs) to benefit California’s *most environmentally burdened communities*. The Team is also working on the Mitigation Project that will positively affect Californians’ public health and safety.

EJ Enforcement Task Force

In Fiscal Year 2016-17, CalEPA received funding for six full-time positions to establish the Environmental Enforcement Task Force (EJ Task Force) to coordinate enforcement and compliance work in areas of the state disproportionately burdened by the greatest concentration of environmental hazards. The allocation included a dedicated program manager housed in the Office of the Secretary to lead the

EJ Task Force. The Task Force was the result of successful pilots led by the Environmental Justice Compliance and Enforcement Working Group in two of the most burdened areas of the state – Fresno, and Pacoima and Boyle Heights in Los Angeles.

Enforcement

CalEPA EJ Task Force Initiatives

EJ communities have long voiced their concerns about the pollution burdens they experience. Among those concerns are land-use decisions that place multiple sources of pollution in or near their neighborhoods, exposing them to the associated risks of adverse health effects. Residents of these communities have also expressed concern about perceived lax enforcement of environmental regulations to prevent pollution and contamination in their neighborhoods.

CalEPA's EJ policies and programs aim to integrate these and other EJ considerations into the environmental regulatory activities, programs, and other actions of each of the Agency's boards and departments.

In 2017, the group was made permanent, renamed the EJ Task Force and consists of regulatory agencies that implement and enforce environmental laws in California. In addition to CalEPA representatives, the EJ Task Force includes members from regional and federal environmental protection agencies.

The EJ Task Force identifies disadvantaged communities that suffer multiple pollution burdens and focuses on enforcement and compliance efforts in those communities. The EJ Task Force's goals are to:

- Create opportunities for residents in disadvantaged communities to provide input regarding local environmental problems;
- Integrate input from community residents into environmental inspections and enforcement work; and
- Promote interagency coordination to ensure that pollution burdens in disadvantaged communities from multiple sources are effectively addressed.

During the reporting period, the EJ Task Force completed enforcement and compliance initiatives in East and West Oakland in 2016-2017, in Pomona in 2017-2018 and Imperial County in 2018. **Each initiative saw many achievements, and full, more extensive reports on each initiative are available at [CalEPA's website](#).**

East and West Oakland

Beginning in 2016, the EJ Task Force conducted an Oakland initiative, focusing on two neighborhoods: one in East Oakland, and one in West Oakland. As a part of that initiative, DTSC inspected discount stores that led to the discovery and confiscation of 118 styles of jewelry that contained dangerous levels of lead or cadmium, and inspections at 15 additional suppliers throughout the initiative focus communities in Oakland. Today, DTSC continues to investigate this serious issue across the City and elsewhere in the state.

In order to address the release of hazardous chemicals, DTSC also issued an endangerment order at a closed electroplating facility, E-D Coat, Inc., in West Oakland, which required the owners to prevent the release of hazardous chemicals found at the site,

including cyanide, chromium, cadmium, hydrochloric acid, and sulfuric acid.

Furthermore, the Alameda County District Attorney's Environmental Protection Division filed 15 felony charges against the owner and operator of the same facility based on numerous crimes relating to its serious mishandling of hazardous waste that placed the public and the environment at risk. Reducing lead exposure in jewelry and addressing the release of hazardous chemicals are both vital enforcement measures.

In addition to DTSC's activities, CARB, along with the Bay Area Air Quality Management District and UC Davis, conducted a state-of-the-art, community-level air monitoring study in East Oakland as part of CalEPA's Oakland initiative.

Pomona

In 2017, the EJ Task Force completed an enforcement and compliance initiative in Pomona. During the Pomona Initiative, the Task Force worked closely with United Voices of Pomona, Clean and Green Pomona, and the Pomona Unified School District to identify local environmental problems. Based on input from the community, the Task Force conducted multi-agency inspections of various facilities in Pomona. Because residents identified air quality concerns as a top priority, CARB staff focused their efforts on illegal truck idling, inadequate emissions controls and tampering with those controls on trucks in and around residential neighborhoods. This led to CARB issuing citations, orders and notices of violation to non-compliant truck operators, requiring them to remediate their violations.

The EJ Task Force also provided

compliance assistance for businesses in Pomona in coordination with local regulatory agencies and prepared a guidebook of local and state environmental regulatory agencies for use by Pomona residents in order to increase compliance. This [StoryMap](#) provides more details and results from the Pomona Initiative.



CalRecycle supports cleanup in Imperial County.

Imperial County

In 2018, the EJ Task Force completed an enforcement and compliance initiative in Imperial County. This was the first effort of the Task Force that focused on an area as large as a county. Members of the Task Force worked closely with Comite Civico Del Valle, Inc. (CCV) and local authorities during the early stages of the initiative to identify and address local environmental problems. Based on input from the community, the EJ Task Force inspected 136 facilities and industries in Imperial County.

Because of the Task Force's work in Imperial County, a \$180,000 penalty was issued against CalEnergy for its operations without the required permits. These penalty dollars were designated by the air district to fund the installation of an indoor air filtration system in the Grace Smith Elementary school in

Niland, at which 16% of the students have asthma—nearly double the national average. Furthermore, because air pollution is such an important issue in this area, to reduce dust impacts, the Imperial County Sheriff’s Office received \$30,000 to increase off-road vehicle enforcement around sensitive areas such as the Salton Sea during times of high off-road vehicle activity and to provide rider education about the adverse health effects to county residents from prohibited riding activity. The EJ Task Force also provided compliance assistance for businesses in Imperial County.

CalEnviroScreen Applications at the State and Local Levels

Understanding and addressing the vulnerability of communities most impacted by pollution is critical to minimizing environmental health and justice disparities among Californians, and is a primary focus of CalEPA and OEHHA.

OEHHA has been widely recognized for its development of the California Communities Environmental Health Screening Tool, or CalEnviroScreen (CES), which identifies communities in the state with the highest pollution

burdens and vulnerabilities. CalEPA and OEHHA released the third version of the tool, CalEnviroScreen 3.0, in 2017, following two earlier versions released in 2013 and 2014.

Policymakers, regulators, scientists, and community members have used CES to, among other things, administer and evaluate grants and investment programs, promote greater compliance with environmental laws, prioritize site-cleanup activities, and to identify opportunities for sustainable economic development in heavily impacted neighborhoods.

Some of the tool’s specific statewide programmatic uses include:

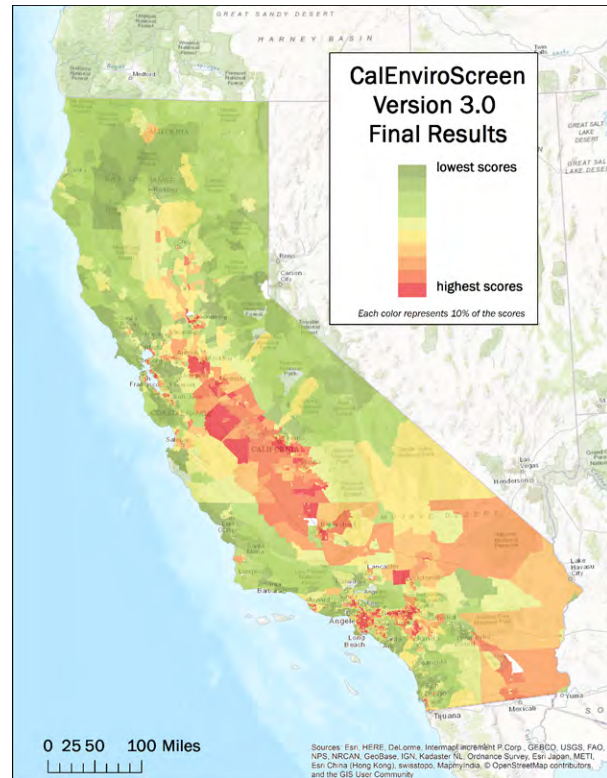
- AB 693 (S. Eggman, 2015), directed the California Public Utilities Commission to award \$1 billion over 10 years for installation of solar-energy equipment in multifamily affordable housing in low income and disadvantaged communities identified by CalEnviroScreen.
- SB 1000 (C. Leyva, 2016), now requires local governments to update their general plan to identify policies and objectives that reduce pollution exposure and other factors in disadvantaged communities

ENHANCED ENFORCEMENT IN VULNERABLE COMMUNITIES

From January 2016 through December 2018, DTSC’s Office of Criminal Investigations (OCI) conducted over 35 metal recycling inspections as part of the Enhanced Enforcement in Vulnerable Communities initiative, an enforcement focus initiated in response to concerns from environmentally impacted communities. Of the facilities investigated, the majority had serious violations of the Hazardous Waste Control Law, which involved releases of hazardous waste to the ground. Samples from metal-contaminated debris and surface soil at those facilities contained lead, copper, and/or zinc at hazardous waste levels, as well as high levels of PCBs and mercury. All the facilities inspected by OCI operate in the most vulnerable and highly impacted communities as indicated by CalEnviroScreen and in the following Counties: Alameda, Fresno, Kern, Kings, Los Angeles, Orange, Sacramento, San Bernardino, San Joaquin and Tulare.

identified by CalEnviroScreen.

- CalRecycle’s Waste Permitting Compliance and Mitigation Division added points in the grant criteria for applicants located in disadvantaged communities per *CalEnviroScreen 3.0*. In Fiscal Year 2018-19, all grants to clean up illegal dumping through the Illegal Disposal Site Abatement Grant Program were provided to local governments with disadvantaged communities.
- DTSC uses CalEnviroScreen to prioritize inspections, investigations and enforcement actions. In 2018, DTSC, as part of its effort to implement SB 673, proposed to use CalEnviroScreen, among other tools, to characterize cumulative impacts and community vulnerability around the permitted hazardous waste facilities that it regulates.
- The EJ Task Force continues to use CalEnviroScreen in its effort to integrate EJ considerations into cross-media enforcement of environmental laws.
- CalEnviroScreen is also useful to CalEPA’s boards and departments in helping them achieve their EJ program goals. One example is the Water Board’s Abandoned Underground Storage Tank Initiative. This program cleans up abandoned gas stations to promote neighborhood revitalization in priority areas using data from CalEnviroScreen.
- SB 535 (K. De León, 2012) directed that at least a quarter of the funds received from the cap-and-trade program go to projects that provide a benefit to disadvantaged communities and at least 10 percent of the funds go to projects located within those communities.



The legislation gives CalEPA the responsibility for identifying those communities. AB 1550 (Gomez, 2016) modified the investment minimums to disadvantaged communities. In addition to the 25 percent of funds going to projects within and benefitting disadvantaged communities, AB 1550 requires at least an additional 10% percent of funding to be directed to low-income households or communities across the state as well as those located within a half mile of a disadvantaged community, defined by CalEPA. CalEnviroScreen informs CalEPA’s identification of disadvantaged communities pursuant to SB 535, and for purposes of AB 1550.

In addition to these uses, CalEPA and OEHHA staff provide technical assistance and support to local governments and community based organizations to use the tool for educational, planning and information purposes, and to inform local resource investment strategies and program development designed to alleviate and improve local health and pollution outcomes.

CalRecycle’s EJ Program Trainings

CalRecycle has provided 41 trainings for staff, community members, educational institutions, and other agencies. Trainings included EJ history, legislation, program development and implementation, policy development, grassroots and community relations, community partners’ perspectives, and more. The Department’s EJ program shared its research, knowledge, and experience with the California State Lands Commission and California Coastal Commission in 2017 and 2018.

Reducing Air Pollution Within and Across Communities

California’s air quality programs are responsible for significant public health improvements through statewide and regional air quality planning requirements, advancement of technology-based solutions, and risk reduction efforts near industrial facilities. Over the last 25 years, ozone levels have dropped over 40 percent throughout the greater Los Angeles region, and the number of unhealthy ozone days has decreased 40 percent in the San Joaquin Valley. Levels of lead measured in the air are now 90 percent lower, and diesel particulate matter, which accounts for over two-thirds of the total known cancer risk from

air pollution in the State, has dropped nearly 70 percent statewide.

However, certain communities continue to experience environmental and health inequities from air pollution. Communities near ports, rail yards, warehouses, and freeways, for example, experience a higher concentration of air pollution than other areas due to emissions from mobile sources such as cars, trucks, locomotives, and ships. Many of the same communities also experience pollution impacts from large industrial facilities such as oil refineries. Proximity to smaller sources like chrome platers, metal recycling facilities, oil and gas operations, agricultural burning, and fugitive dust likewise contribute

LOOKING AHEAD

Accurate estimation of exposures to air pollutants and identification of sources and factors contributing to high exposures in disadvantaged communities is essential to achieving the goals of AB 617. Despite overall reductions in ambient levels of air pollution, disparities still remain between pollutant exposures in disadvantaged and non-disadvantaged communities. A planned project titled Total Exposures to Air Pollutants and Noise in Disadvantaged Communities aims to identify exposure to air pollutants for residents in disadvantaged communities, activities and sources which contribute to those exposures, and relative risks for possible health effects associated with these exposures. Results from this study will be used to determine if elevated risk to particular air pollutants call for more stringent regulations, standards or additional ways to protect residents in disadvantaged communities.

to localized air toxics impacts in many communities across the State.

CARB Selects 10 Communities to Address Air Pollution Disparities through the AB 617 Community Air Protection Program

In July of 2017, AB 617 was signed into law. AB 617 is a significant step in transforming California's air quality programs to address air pollution disparities at the neighborhood level. It requires new, community-focused actions to reduce exposure to air pollution in disproportionately burdened communities throughout the State. The AB 617 program implements statewide strategies and community-specific emissions reduction programs.

To help reduce emissions in communities, the legislation includes specific requirements:

- accelerated installation of pollution controls on industrial sources like oil refineries, cement plants, and glass manufacturers;
- expanded air quality monitoring within communities;
- increased penalties for violations of emissions control limits; and
- greater transparency and improved public access to air quality and emissions data through enhanced online tools.

CARB and air districts work with local residents to:

1. identify individual areas where focused reductions are needed to address disproportionate air pollution impacts;
2. develop new actions to reduce emissions and exposure; and
3. collaborate with other state, regional, and local agency partners to include

community-level benefits in the development and implementation of all statewide and regional programs to reduce air pollution.

The following monetary commitments helped jump-start AB 617's emissions reductions in disproportionately burdened communities:

- The fiscal year 2017-2018 state budget included \$250 million to clean up heavily polluting mobile sources, such as diesel trucks and buses.
- The fiscal year 2018-2019 state budget included an additional \$245 million in funding for continuing AB 617 emissions reduction efforts.

In 2018, CARB selected ten communities in the first year of the program. The majority were recommended for community emissions reduction programs, with most also including a monitoring component to establish baseline data for tracking emission reductions. The combination of air district and community-led air monitoring will enhance the ability to collect data that will be used to support actions to reduce emissions and help place data collection in the hands of community-based organizations. Strategies developed for the initial ten communities can then serve as models for action in other communities.

Reduced Cancer Risk from Diesel Particulate Matter

This map shows the area around the I-710, with the highway represented by this black line. The colors illustrate the risk for cancer development in these neighborhoods, with the yellow, orange, and red areas having the highest risk for developing cancer. The map on the left represents the cancer risk from diesel

PM in 2009 and the map on the right for 2016. The estimated cancer risk due to diesel particulate matter from the I-710 has been reduced by 83% over this time period.

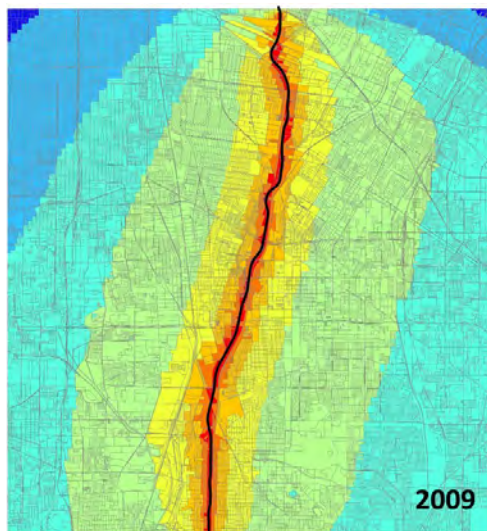
The most extensive and interconnected system in the United States, California's freight system is composed of several deep water seaports, cargo airports, border crossings, and a vast warehousing and distribution sector, all connected by a network of over 11,000 miles of railroad track and Interstate and state highways. In California, the freight discussion includes the recognition that the emissions from ships, harbor craft, trucks, locomotives, cargo handling equipment, aircraft, and other freight equipment continue to be significant contributors of air toxics, criteria pollutants, and greenhouse gasses.

For over a decade, the collective efforts from impacted communities, air quality agencies, the ports, and the freight industry as a whole have made significant progress in reducing air quality impacts from freight movement. But more recent health science emphasizes the need to do more to protect children and other vulnerable residents living near large freight facilities. The interwoven nature of the freight transport system often aggregates the emissions from this equipment in close proximity to nearby residents and poses health risks to surrounding communities, highlighting the need for additional steps to protect public health.

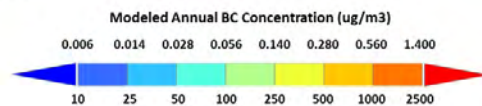
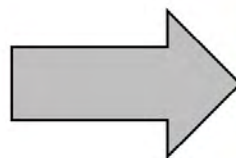
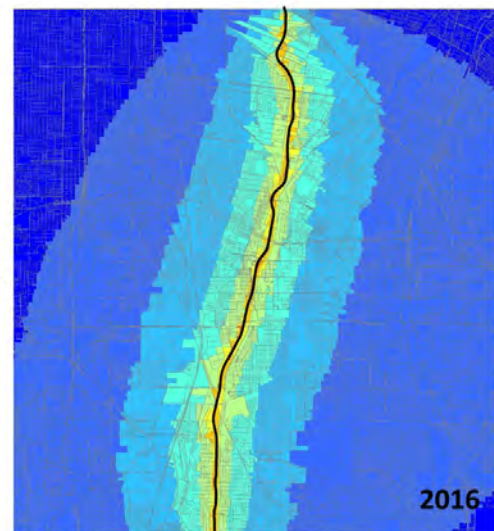
CARB works with agency partners and stakeholders to implement a broad program that includes regulations, incentives, and policies designed

Risk for Cancer Development in Neighborhoods Adjacent to 710 Freeway

Cancer risk from diesel PM in 2009



83% reduction in the risk for cancer development in 2016



to support the transformation to a more sustainable freight system and reduce community impacts from freight operations in California. To further protect communities, CARB is developing regulations to minimize emissions from ships at-berth, cargo handling equipment, commercial harbor craft, trucks, and other freight equipment to transition those sources to zero- or near-zero emission operation, as well as potential new rules for rail yard and locomotive emissions. These actions will provide critical benefits to reduce community health risk, fulfill State Implementation Plan commitments to attain federal air quality standards, and meet greenhouse gas reduction targets. Staff is also developing a Freight Handbook with recommendations for the siting, design, construction and operation of new, existing, and expanding freight facilities. Such actions may require earlier implementation in the most impacted communities or regions.

California's 2017 Climate Change Scoping Plan Addresses Major Sources of Climate-Changing Gases in Every Sector of the Economy

In 2006, the landmark Global Warming Solutions Act, AB 32, set the goal of reducing greenhouse gas emissions to 1990 levels by 2020. California is on track to exceed that target, while the state's economic growth has continued to outpace the rest of the country. The Scoping Plan accelerates the reduction of greenhouse gas emissions over the coming decade while improving air quality and public health, investing in disadvantaged communities, and supporting jobs and economic growth. The 2017 Climate Change Scoping Plan sets the state on an ambitious course

to reduce climate changing gases an additional 40 percent below 1990 levels by 2030, required under SB 32 (F. Pavley, 2016). Meeting these goals will require California to double the rate at which it has been cutting climate-changing gases. Following through on these actions, the plan estimates, could save the state in 2030 as much as \$11 billion dollars in avoided environmental damage from carbon pollution in 2030. The programs detailed in the Scoping Plan will improve public health while reducing costs associated with healthcare and natural disasters. These include a projected reduction in premature deaths of 3,300 by 2030. The financial benefit from reduced sick days and hospital stays will be more than \$1.2 billion in 2030.

CARB approved the state's 2017 Climate Change Scoping Plan after unprecedented public outreach and coordination over two years, between 2015 and 2017. More than 20 state agencies collaborated to produce the Scoping Plan, which was informed by 15 state agency-sponsored workshops, five CARB board meetings, more than 500 public comments, and 40 EJ Advisory Committee meetings and community meetings.

Implementing this Scoping Plan will ensure that California's climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics. The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

- **More Clean Cars and Trucks:** The plan sets out far-reaching programs to incentivize the sale of millions of

zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.

- **Increased Renewable Energy:** California's electric utilities are ahead of schedule to meet the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350 (K. De León, 2015).
- **Reducing Super-Pollutants:** The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- **Cleaner Industry and Electricity:** California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- **Cleaner Fuels:** The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- **Smart Community Planning:** Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- **Improved Agriculture and Forests:** The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The Scoping Plan evaluates reductions of smog-causing pollutants through California's climate programs. In addition, AB 617 lays the groundwork for new and enhanced efforts to identify and reduce air pollutants and air toxics with a specific focus on communities near the state's biggest emitters and in communities disproportionately impacted by pollution.

California Sustainable Communities and Climate Protection Act

In 2008, the California Legislature passed SB 375 (D. Steinberg, 2008), also known as the Sustainable Communities and Climate Protection Act, as a first-of-its-kind law to recognize the critical role of integrated transportation, land use, and housing decisions to meet state climate goals. The law requires each of California's 18 regional Metropolitan Planning Organizations (MPOs) to include a Sustainable Communities Strategy (SCS) in their long-range regional transportation plans. In the SCS, the MPO, in partnership with their local member agencies and the state, identifies strategies to reduce greenhouse gas emissions from driving. In 2017, the Legislature tasked CARB with issuing a report every four years analyzing the progress made under SB 375 pursuant to SB 150 (B. Allen, 2017).

The report finds that California is not on track to meet greenhouse gas reductions expected under SB 375. This finding is based on CARB's analysis of 24 data-supported indicators to help assess what on-the-ground change has occurred since SB 375 was enacted related to strategies identified in SCSs to meet the targets (e.g., travel patterns, funding for high-quality transit and making

communities safe and convenient for walking and cycling, and building homes at all income levels near jobs and other opportunities). CARB also includes 68 best practices and eight challenge areas for SCS implementation that were identified through consultation with MPOs and other affected stakeholders.

In addition to these required reporting elements, CARB incorporates suggestions on ways to overcome the eight SCS implementation challenges identified in this report. When interviewing MPOs and affected stakeholders for this report, CARB consistently heard concerns over the continued pervasive and longstanding disconnect between the factors that shape regional growth and development in California – such as transportation investment, regulatory and housing market conditions at the local, regional, and state levels – and the state’s environmental, equity, climate, health, economic, and housing goals.

While positive gains have been made to improve the alignment of transportation, land use, and housing policies with state goals, the data suggest that more and accelerated action is critical for public health, equity, economic, and climate success.

SB 375 focused its efforts on MPOs and initiating change in the way planning for growth and travel occurs, but structural changes and additional work by all levels of government are still needed to implement what regions have identified to be needed strategies. No single agency or level of government alone bears the responsibility for this work. Yet there is an opportunity to partner across many agencies, with regional and local government staff and elected officials, and with communities and to take collective action toward better results, and toward the delivering benefits for public health, the environment, social justice, and access to opportunities.



Safe, Clean, Affordable & Accessible Drinking Water



In 2012, AB 685, (M. Eng, 2012), made California the first state in the nation to legislatively recognize the Human Right to Water. The law establishes as state policy that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” The Human Right to Water extends to all Californians, including those in disadvantaged communities in rural and urban areas.

Water Boards Work to Deliver the Human Right to Water in Small Rural Communities

About 90 percent of drinking water violations occur in public water systems with less than 500 connections. These systems are often less resilient to natural disasters, have difficulty adjusting to regulatory changes, and often lack the technical, managerial, and financial ability to afford and effectively manage water system operations and maintenance. Many of these systems serve rural, unincorporated areas in the state’s agricultural regions. To ensure safe and affordable water for small communities receiving water from these systems, the Water Boards support water system consolidation whenever feasible to strengthen water systems. Water consolidation can take many forms, including

- **Physical consolidation:** The joining of two or more water systems, which often includes a smaller system connecting to a larger water system.
- **Managerial consolidation:** The joining of two or more water systems for managerial purposes (such as billing, operations, and regulatory reporting) but each system continues to use its original water supply and distribution system.
- **Regionalization:** The consolidation of several water systems into a combined larger system.

Due to the importance of this issue and its large impact on communities across the state, the Water Boards began tracking consolidation statistics in 2017. Fifty consolidations were completed in 2017 and 42 consolidations were completed in 2018 (details are available from the [Water Boards website](#)). Due to the complex nature of the consolidation process, this is a big win for local communities, whose access to safe and affordable drinking water is enhanced by consolidations. Consolidation work represents the collaborative efforts of many parties, including the Water Boards Divisions, county environmental health programs, technical assistance providers, receiving and subsumed

water systems, and in some cases local area formation commissions and the California Public Utilities Commission.

Working to Improve Water Affordability

Recognizing that many Californians may not be able to pay their water bills, AB 401 (B Dodd, 2015), known as the Low-Income Water Rate Assistance Act of 2015, directed the Water Boards to submit recommendations for a statewide Low-Income Water Rate Assistance Program (W-LIRA). In 2018, staff prepared a *draft report*, outlining possible components for developing a successful program to help low-income households pay their water bills. The report identifies potential program recipients, different mechanisms for delivering benefits to low-income households, and possible funding sources to implement a W-LIRA program.

Enforcement Settlements and Supplemental Environmental Projects Serve Communities

CalEPA and its boards and departments, including the Water Boards, work to identify and prioritize program efforts in communities that suffer multiple pollution burdens, and often focus enforcement and compliance efforts in those communities. Focused enforcement can often include implementing settlement agreements. In recent years, the Water Boards have worked closely with landowners, local communities, and rural community advocates to reach agreements that provide interim drinking water. The following highlights describe the community benefits achieved through some of these agreements:

- A 2017 agreement established the Salinas Basin Agricultural Stewardship Group and provided bottled water to more than 700 people in impacted community water systems and 12 private

REBUILDING WATER SYSTEMS IN LAKE COUNTY AFTER THE VALLEY FIRE

In 2015, the Valley Fire consumed 360 homes and displaced about 670 people. Several small water systems in Lake County's Cobb area were damaged. Several of the water systems have water quality issues (such as iron, manganese, and historic E. coli), inadequate water supply, infrastructure that is not up to current standards, and/or struggle with maintaining distribution systems. Historically, this area was resistant to consolidation and very invested in local control. After the severe impacts of the Valley Fire, many residents were open to consider consolidation due to a new spirit of cooperation resulting from the shared tragedy. Additionally, the loss of so many homes made it difficult from a practical standpoint for water systems to rebuild independently because the fixed operation costs were no longer viable on the smaller rate bases. In 2017, the Cobb Area County Water District, funded by Lake County, evaluated the infrastructure needed to create an efficient and financially viable consolidated system that would satisfy current and future needs of Cobb Area residents. Lake County's initial investment in the evaluation will result in better economies of scale, increased fire flow for residents, and millions of dollars in aid. The consolidated system will positively impact over 2,300 residents.

domestic wells in 2018 in the Salinas Basin.

- A 2018 agreement requires that eight water supply stations be installed in the Tulare and Kings County areas by 2020.
- A 2018 agreement with three Central Valley agricultural water coalitions (Kaweah Basin Water Quality Coalition, Tule Basin Water Quality Coalition, and Kings River Watershed Coalition Authority) required the installation of drinking water supply stations to serve individuals who may be impacted by nitrate contamination of drinking water wells in parts of Tulare, Kings, and southern Fresno Counties.

Settlement Agreements can also include implementing Supplemental Environmental Projects (SEPs). SEPs are environmentally beneficial projects included as part of a settlement for environmental violations. Violators voluntarily agree to undertake a SEP as part of their penalty. In September 2016, three SEPs totaling \$63,000, resulting from an administrative enforcement action against the Imperial Irrigation District's Grass Carp Hatchery supported the following projects in disadvantaged communities located in Imperial Valley:

- The Citizen's Congressional Task Force on the New River constructed three wetland sites along the New and Alamo Rivers to improve water quality and to reduce the degradation of the Salton Sea. The first SEP expended \$32,000 to implement wetland operation and maintenance activities directly associated with the Brawley wetland site.

- The second SEP expended \$6,000 to Desert Wildlife Unlimited, Inc. (DWU) to implement wetland operation and maintenance activities at the Brawley wetland site and support implementation of the New River Wetlands Project education and outreach program.
- The California Border Environmental and Public Health Protection Fund received \$25,000 to support the New River Improvement Project in Calexico. The goal of the project is to improve water quality in the New River as it crosses from Mexico into California, exposing residents to wastewater emission from the river as it flows north through the City of Calexico and its surrounding areas.

In future agreements, the Water Boards want to increase public participation to balance the need for expedited interim safe drinking water solutions and community involvement in selecting and implementing solutions. The Water Boards understand that replacement water is an interim solution and are working closely with stakeholders to identify long-term solutions for contaminated aquifers.

Enhancing Notification & Information Access



The old adage is true: knowledge is power, and one of the central tenets of EJ is to make government and governmental activities more transparent and accessible, particularly for disadvantaged communities, and to enhance notification protocols, education and information access. While many of CalEPA's activities enhance and broaden information access, the following programs and efforts are specifically designed to increase community access to information, and support community engagement in decision-making around health and environmental protections.

Regulation for the Reporting of Criteria Pollutants and Toxic Air Contaminants

In December 2018, CARB adopted the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants (CTR). This regulation requires the owners or operators of specified facilities to annually report the airborne emissions of criteria pollutants and toxic chemicals to their local air district. Local air districts then transmit the emissions data to CARB, and the data is stored in a single database for retrieval and analysis. The CTR was prompted by the passing of AB 197 (E. Garcia, 2016), which mandated greater access to public data and transparency.

The annual reporting requirements in CTR are important because, historically, criteria pollutants and air toxics emissions were collected every three or four years, which makes it challenging to compare emissions over time and establish trends. Reporting under this program begins with 2019 emissions data collected in 2020.

The emissions inventory data provided by the CTR regulation will benefit several CARB programs designed to manage air quality in disadvantaged communities and EJ areas within the state. The emissions data will support the AB 2588 (L. Connelly, 1987) Air Toxics "Hot Spots" program, by providing updated toxic air contaminant emissions data for health screening and assessment. The data will also provide sufficient information to perform some assessment of the cumulative risk from multiple stationary sources upon specific receptor locations. The data will also allow an evaluation of increases or decreases in emissions within defined EJ areas over time, which will support the implementation of the AB 617 activities, as well as the development and evaluation of Air Toxic Control Measures (ATCM).

Regulations Require Notice of Pesticide Applications Near Schools and Day Care Centers

The state's agricultural lands often surround agricultural communities – including many homes, schools and parks where agricultural workers and their families spend their time. As compared to adults, children's bodies are more susceptible and sensitive to the impacts of pesticide exposure. Pesticide use near schools and day care facilities is therefore a concern for many parents and families in rural, agricultural areas of the state.

In 2017, DPR developed new regulations (Title 3, California Code of Regulations section 6690, effective January 1, 2018) in response to public concern about the risk of pesticide drift from use in agricultural areas neighboring schools and daycares. These regulations, which apply statewide, restrict certain types of applications that have greater drift potential (such as by aircraft or ground air-blast equipment) within one-quarter mile of a school while school is in session (6 a.m. through 6 p.m., M-F).

The regulations also require growers to annually provide notification each year, by April 30, for the months of July through the following June. These notifications must include the pesticides growers intend to apply for the production of agricultural commodities near the school area. To date, these regulations impose some of the strongest information requirements designed to protect children from pesticide exposure around schools. In the years to come, CalEPA will work towards improving the public's access to the information reported to schools by supporting DPR and County Agricultural Commissioners to consolidate information for parents, teachers, and residents.

Youth Engagement in EJ Communities

One of the most under-served groups in California are youth who live in disadvantaged, low income and/or underserved communities that face higher pollution and poverty burdens. To help engage and empower high school youth from these communities, and to expand their environmental literacy,

SUPPORTING RISK REDUCTION FOR PESTICIDE EXPOSURE IN FAMILY CHILD CARE HOMES

In addition to enhancing information access around schools, DPR has also focused its efforts on enhancing information access to infant and toddler childcare providers of family childcare homes (FCCH). Specifically, DPR works with these childcare providers to enhance awareness around integrated pest management practices, to reduce the use of potentially toxic or harmful chemical pest management products in their homes. Since 2016, DPR has conducted workshops and focus group sessions where they have supported FCCH care providers in developing alternative pest management tool kits, in Oakland, Modesto, and Watsonville. Many families in low income and disadvantaged communities look to FCCH's for affordable childcare options. These efforts provide resources to help these facilities reduce infant and children's risk of exposure to pesticides.

DTSC and CalRecycle worked together between 2016 and 2018 to create a pilot education project. The project reached over 300 students from Boyle Heights, Oakland, Pomona, and Imperial County. Local partners included Pacoima Beautiful in Los Angeles, the Rose Foundation and the Community Health and Adolescent Mentoring Program for Success (CHAMPS) in Oakland, Pomona Hope in Pomona, and Brawley high school teacher and community leader Jose Flores in Imperial.

The pilot's goal was to prepare and create opportunities for future leaders by: 1) teaching students how to be effective communicators, 2) providing opportunities for students to apply academic knowledge to real-world situations, and 3) providing students with professional development and networking opportunities.

In order to ensure this pilot project was community-informed, CalRecycle and DTSC worked with community education leaders to create semester-long, learner-centered curricula for high school students. Each lesson was highly participatory and included field demonstrations, discussion and use of case studies. Students learned from DTSC, CARB and Water Boards staff over the course of a semester and were able to network with CalEPA staff, executive leadership and community leaders. Each semester ended with a capstone project where students demonstrated their ability to apply academic knowledge through presenting various EJ topics to local leaders, elected officials, and environmental regulators.

2017 Water Boards EJ Summit

The Water Boards held an EJ Summit in November 2017 to facilitate a discussion between EJ community members,

advocates, and Water Boards' members and staff. The Summit focused on the following discussion topics:

- Community voices
- Measuring progress
- Effective partnerships
- The human right to water
- Public participation opportunities
- Finding solutions
- Communication and outreach

Staff identified key findings and developed the following strategies to help improve Water Boards outcomes and positively impact disadvantaged communities that have endured decades of inequitable access to safe, clean, and affordable drinking water:

- Prioritize community engagement
- Expand EJ-related trainings for Water Boards staff
- Increase tools that empower Water Boards staff to effectively implement public participation
- Maintain relationships with EJ advocates
- Develop a better understanding of water quality issues from the perspectives of people experiencing homelessness

Providing Information to Increase Protections against Chemical Exposures

Working people and their families, including farmworkers, service workers, and residents, are essential to the success of California's economy, and the states' vibrancy. Rural outdoor workers and service workers are also one of the most under-served groups in the state and often the most at-risk for exposure to chemicals, including pesticides. Because of the variety and vast amount of agricultural crops in California, pesticide use in the state is

one of the highest in the country. The risk of pesticide and chemical exposure to workers is a top priority at CalEPA, and across its boards and departments. Ensuring that information is disseminated in appropriate languages and formats, and in culturally sensitive spaces, is critical to ensuring that health and safety protections can be met.

Outreach and Education for Farmworkers

DPR provides multilingual outreach and education to farmworker communities on pesticide safety. Between 2016 and 2018, DPR outreach staff participated in over 150 outreach events focused on farmworkers and their families and the communities they live and work. These events involved DPR delivering key information to farmworkers and their families, about their rights and about DPR and CACs' responsibility to protect them. Staff at the department also promotes pesticide safety to workers in the non-agricultural use sector such as landscape maintenance gardeners and golf course workers.

DPR also develops and provides bilingual safety information regarding issues affecting farmworkers and the communities in which farmworkers live, such as community guides to recognizing and reporting pesticide problems, and employer compliance booklets on pesticide regulatory requirements.

Increasing Sanitizer Safety Awareness among Restaurant Workers

A recent analysis of pesticide-related illness and injuries in urbanized areas revealed that 28 percent of occupational incidents occurred in retail and service establishments, which includes restaurants, grocery stores, hotels,

2016-2018 OUTREACH ACTIVITIES

- Spanish television interviews on pesticide safety and how to contact DPR with any pesticide related issues
- Interviews and Public Service Announcements on Spanish and Indigenous Radio Stations
- Farmworkers appreciation events
- Indigenous focused cultural events (organizations include
- MICOP-Oxnard, CBDIO-Fresno, and MCIU-Santa Rosa)
- Attending Health "Promotores" conferences, various local pesticide handler and fieldworker safety trainings offered by agricultural commissioners, among other events
- Holding labor Rights discussions with the Mexican Consulates and "Breaking Barriers Workshops" designed to educate county staff on cultural knowledge of Spanish speaking farmworkers and to assist them with field inspections

and other establishments engaged in providing services to individuals, a workforce represented by many immigrant and low-income workers. A majority of the illnesses and injuries could have been prevented had the employees handling the chemicals in the work place worn the required Personal Protective Equipment (PPE), or followed other labeled instructions.

In an effort to reduce the number of illnesses and injuries in retail food facilities, DPR created a sanitizer awareness outreach project aimed at restaurant workers. In 2016, DPR took input from the California Conference of Directors of Environmental Health (CCDEH), the local environmental health departments (EHDs), local restaurants,

and Cal OSHA to create outreach materials emphasizing the safe use of sanitizers and the importance of wearing label- required PPE. The posters were printed in English, Chinese, Korean, and Spanish, the most commonly spoken languages in food facilities according to the EHDs. The project prompted safer work environments by spreading awareness about the risks of using pesticides through proper training and stewardship.

Environmental Justice Workshops Provided on Pesticide Regulation

In October 2016, DPR, US EPA Region 9, the Fresno County Agricultural Commissioner's Office and the Central California Environmental Justice

Network (CCEJN) hosted the first DPR Environmental Justice Pesticide Enforcement Workshop in Fresno. The purpose of the workshops is to strengthen partnership with the community by providing advocacy groups and community leaders with working knowledge of pesticide use enforcement, reporting and worker safety. The workshops are designed to provide attendees with a better understanding of DPR's Enforcement Program and the services the CACs provide to protect workers and community. Since then and during the reporting period, DPR held four other statewide workshops in Bakersfield, Santa Maria, San Joaquin, and Riverside.



Funding & Technical Assistance Resources

It is vital that governmental entities make grants and resources available to communities at the grassroots level. Using an EJ lens helps direct needed governmental resources, such as funding, grants and technical assistance, to often-neglected and overlooked areas. Local community members are often the real experts in understanding their community's needs, and quick to recognize what some of the most effective grassroots solutions might be. Often, even small grants can make a big impact when communities are empowered to participate in and take ownership of local solutions.

Workforce for Environmental Restoration in Communities Program

DTSC created the Workforce for Environmental Restoration in Communities (WERC) program as a local workforce development and job training program to train and promote hiring of residents in communities near the former Exide Technologies facility in Vernon, California. This program directly supports Governor Newsom's plan to advance and expand the cleanup of residential properties, schools, daycare centers, and parks around the former Exide facility in Vernon.

This program aims to expand



Recent WERC program graduates, program partners and contractors.

community engagement in the soil testing and residential cleanup processes, provide environmental health and safety training, and support job placement. Program participants receive over 60 hours of hazardous waste and lead abatement training and obtain a California Department of Public Health certification to conduct lead abatement related work. Once trained, the participants are initiated into the Laborers International Union of North America (LIUNA) Local 300 for dispatch onto the project. As members of the union, participants receive continued training opportunities, recertifications, health benefits, retirement/pension assistance, and a prevailing wage.

Training for the sampling and residential clean up portions of the project have produced two sampling cohorts and five residential cleanup cohorts. Over 90% of participants trained as lead sampling technicians were hired during the initial sampling phase of the project and some have continued to contribute as technicians on the residential cleanup phase. Of the five residential cleanup cohorts, 68 participants were initiated into the LiUNA Local 300 and dispatched

on the project. The WERC program and its partners continue to engage community members by providing an additional channel of participation on residential cleanup activities to significantly reduce lead exposure in affected communities.

Funding

California Climate Investments Focus on Disadvantaged Communities

Auction proceeds from the implementation of AB 32 (Pavley, 2006), also known as California Climate Investments, are administered by state agencies for a variety of greenhouse-gas cutting programs, including energy efficiency, public transit, low-carbon transportation and affordable housing. The portfolio of programs funded by these proceeds put billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment—particularly in disadvantaged communities, low-income communities, and low-income households.

Guidelines written by CARB help agencies administering programs funded through the Climate Investment portfolio develop methods to track reductions in emissions while maximizing the benefits to disadvantaged communities. On August 30, 2018, CARB released the “Funding Guidelines for Agencies Administering California Climate Investments” (Funding Guidelines), providing new and needed flexibility in implementing a diverse set of investments while maintaining transparency of outcomes and ensuring meaningful community benefits from these investments. These guidelines align with the Legislature’s priorities

found in AB 398 (E. Garcia, 2017) and Fiscal Year (FY) 2017-18 appropriations. They reflect the increasingly important role our Climate Investments play in facilitating the reduction of greenhouse gases, while reducing local air pollution, helping communities adapt to the impacts of climate change, and providing meaningful benefits to disadvantaged communities, low-income communities, and low-income households, among other statutory requirements.

2018 CARB Community Leadership Summit

On March 12, 2018, CARB outreach staff collaborated with the Strategic Growth Council to host a Community Leadership Summit: Best Practices in Building Successful Projects. This Summit focused on the development of projects funded by the Climate Investment programs, and brought together more than 200 community members, advocates, technical assistance providers, outreach partners, local governments, and State agencies in Riverside to discuss how California Climate Investments can make real impact in communities and meet community needs. Panels and interactive discussion groups led by community leaders and agency staff fostered fruitful conversations and mutual learning. The workgroup synthesized information from the Summit, and observations from years of implementing these programs, into a *Best Practices in Community Engagement and Building Successful Projects document*.

The document provides a roadmap for improving community leadership and engagement, with core values and practical examples. State agency staff, contractors and awardees, and community partners can use the document at several stages

in program and project development and deployment.

Drinking Water Infrastructure Provided through Loans and Grants

Many communities face unique challenges related to their drinking water and wastewater systems that can make it difficult to navigate the funding process. The Water Boards provide loans and grants for communities to improve water infrastructure or connect to neighboring water systems.¹ Water Boards staff helps these communities (directly or through third-party providers) apply for funds and coordinate with other funding agencies, and receive technical assistance. In 2018, the Water Boards provided over \$160 million to small disadvantaged and severely disadvantaged communities to implement drinking water and wastewater treatment projects, including \$2 million provided for technical assistance.

In addition, the Water Boards funded interim/emergency drinking water projects through the Cleanup and Abatement Account and the State's General Fund. Typical projects funded included:

- well rehabilitation or replacement,
- emergency interties,
- extension of service,
- treatment systems (including point of use treatment), and
- interim water supplies, such as bottled or hauled water.

Since 2014, the Water Board has funded approximately 300 projects, totaling

¹ Eligible planning, design, and construction projects include drinking water treatment systems, distribution systems, interconnections, consolidations, pipeline extensions, water sources, and water meters.

over \$42 million in invested resources. In 2018 alone, the Water Boards awarded over \$326 million from the Drinking Water State Revolving Fund, and from Prop 84 and Prop 1 funds. The Water Board fully-allocated all \$241 million in Prop 1 funding available for drinking water projects for small disadvantaged communities.

CARB Awards \$10 Million in Grants to Communities under AB 617

A central element in AB 617 is the recognition of the key role residents and communities play in achieving reductions in local air pollution, and in informing the statute's emission reduction plans. In June of 2018, CARB announced the first round of community air grantees under the program, which relies on cap-and-trade auction proceeds. CARB awarded 10 million dollars in grants to help 25 community-groups and three Native American Tribes reduce air pollution in their neighborhoods. Recipients were located in communities across California that face significant challenges with air pollution including the Central Valley, Los Angeles, Bay Area, and San Diego.

The funded projects reflect the unique and diverse needs across the state and include community-driven air monitoring, improving public access to information about local pollution sources, reducing community exposure and to tracking progress on pollution reduction efforts. Examples of selected projects include:

- The Pala Band of Mission Indians in Northern San Diego County will launch a new air quality monitoring network and website to provide real-time information to tribal members
- The Fresno Metropolitan Ministry will engage students and parents

in disadvantaged and low-income neighborhoods to share information about air quality issues, identify solutions and develop a local air quality action plan that can serve as a model for others

- Through a community-based research project, the Citizens for Responsible Oil & Gas will develop a citizen scientist program to train interested Ventura County residents in ways to identify and document pollution sources of concern

CalEPA EJ Small Grants Program Provides \$2.6M to over 50 Community-Based Organizations and Tribal Governments

From 2016 to 2018, the EJ Small Grants Program awarded \$2.6 million in grant funding to over 50 community-based organizations and federally recognized Tribal governments addressing EJ issues.

The CalEPA EJ Small Grants Program offers funding opportunities authorized by California Code of Regulations Title 27, Division 1, Chapter 3, Article 1, to assist eligible non-profit community organizations and federally-recognized Tribal governments address EJ issues. The EJ Small Grants are

LANARE COMMUNITY SERVICE DISTRICT WELL PROJECT

The Water Boards continue to work towards finding permanent and sustainable drinking water solutions to ensure effective and efficient provision of safe, clean, affordable, and reliable drinking water services to all communities, statewide, and, in particular, to disadvantaged and small disadvantaged communities in the state's rural areas. To help achieve this goal the Water Board provides pre-planning assistance for projects seeking funding and technical, managerial and financial assistance through its technical assistance program. The Lanare Community Service District Well Project is an example of these efforts. Lanare is a small severely disadvantaged community with a population of about 660 residents. For at least 13 years, Lanare Community Services District (CSD) struggled with operating their small drinking water system (153 connections). Since 2010, the Water Boards assisted Lanare CSD to apply for and receive over \$7 million from the Drinking Water State Revolving Fund and Prop 84. Lanare CSD used funds to plan and analyze viable solutions (consolidation, new wells, treatment system) for their arsenic issues, develop supporting documents, drill new wells, and implement improvements to their distribution system. The Water Boards also provided Lanare with emergency bottled water from 2014 through February 2019, when residents began receiving water from the new wells. Currently, the new wells meet drinking water standards, but one of the wells has a detectable level of benzene below the maximum contaminant level (MCL) that is being tested monthly.

GRANT GIVEN TO COMMUNITY WATER CENTER

In 2018, the Water Boards awarded funds to the Community Water Center to establish a local office in the City of Watsonville to increase long-term EJ capacity in the Central Coast region to assist communities in securing safe drinking water and wastewater solutions.

awarded on a competitive basis in areas disproportionately affected by environmental pollution and hazards. Eligible applicants are limited to non-profit entities or federally recognized Tribal governments. Grants are awarded on a competitive basis and selected by the CalEPA Secretary. Projects are 12 months and a maximum of \$50,000 per project.

Grants are awarded for the following statutory purposes as defined in Public Resources Code Section 71116:

- Distribution of information to help resolve environmental problems;
- Identification of improvements in communication and coordination between stakeholders and CalEPA, and its Boards, Departments, and Office, in order to address the most significant exposure(s) to pollution;
- Improvement of community or tribal government understanding about environmental issues that affect its community or tribal government;
- Promotion of community or tribal government involvement in the decision-making process that affects the environment of the community/tribal government; and
- Enhancement of community/tribal government understanding of environmental information systems and environmental information.

The EJ Grant Program supports and empowers communities working on solutions to local environmental and public health issues. The EJ Grant Program also seeks to assist recipients in building collaborative partnerships to help them understand and address environmental and public health issues in their communities. Among other things, this EJ Grant Program aims to fund projects that among other things

under CalEPA's purview focuses on:

- improving access to safe and clean water,
- reducing the potential for exposure to pesticides and toxic chemicals,
- promoting community capacity building,
- mitigating climate change impacts, and
- promoting climate adaptation and resiliency.

Project Highlights

Asian Health Services

Asian Health Services (AHS) worked in partnership with the California Healthy Nail Salon Collaborative (Collaborative) to educate nail salon workers from over 300 salons in San Francisco, San Jose, and Los Angeles County on how to reduce exposure of toxic chemicals frequently found in nail salon products. AHS worked in partnership with Collaborative staff to develop an EJ focused nail salon workplace training curriculum and booklet tailored for owners and workers titled, "Nail Salon Workplace Health and Safety: Environmental Justice in Action." AHS provided education on best workplace practices, government regulations and processes. AHS trained 40 community members to become Environmental Justice Ambassadors and community leaders.

The AHS project created and provided television, radio, and newspaper Vietnamese public service messages and materials to target the majority of the nail salon workforce. AHS established partnerships with Vietnamese media outlets to promote EJ Leadership Trainings and community forums and AHS successfully worked with a media consultant and reached seven

cosmetology schools and 320 nail salons. AHS and the Collaborative trained 200 nail salon owners and workers in EJ concepts related to workplace health and toxic exposure and hazardous waste reduction in small and large trainings in Los Angeles County. The majority of nail salon community members who participated in the trainings had an increase in knowledge about chemical exposures, hazardous waste reduction strategies, and healthy nail salon workplace practices. Nail salon workers who participated in these trainings also confirmed that they had adopted at least two of the three best workplace practices that are related to chemical exposure – using nail polishes that do not contain the Toxic Trio, wearing nitrile gloves, and/or investing in a ventilation unit that has a charcoal filter.

Insight Garden Program

Reentry support for former inmates remains critically low in California and nationally as many people still do not receive the in-prison or post-release services needed for healing, empowerment, and success. The Insight Garden Program (IGP) facilitates an innovative curriculum combined with gardening and landscaping training so that people in prison can reconnect to self, community, and the natural world with the intent that this gardening approach transforms lives, ends ongoing cycles of incarceration, and creates safer communities.

The IGP partnered with EJ organizations, community colleges, and local government to provide leadership training to formerly incarcerated residents now living in Oakland and Richmond. IGP also worked with local community organizations and schools to

provide education on air, water, and local regulations related to climate change that impact disproportionately underserved communities. IGP launched the Green Prisons & Community Environmental Justice Initiative to engage people incarcerated at California State Prison-Solano in creating solutions to EJ and climate change impacts and hopes to launch this program in other prisons throughout the state.

IGP hosted environmental, criminal, and food justice leaders from eight different organizations at the program at San Quentin prison. These leaders were from Fresno Juvenile Hall, NOPA Restaurant, California Recycling Cut #50, Green For All, and an independent filmmaker who produced a seven-minute video about the program.

IGP hosted two large-scale community service projects organized in partnership with leaders in reentry who were part of the Environmental Justice Action Alameda Reentry Group. In collaboration with a program called “Get on the Bus”, a free program that takes families to see loved ones in prison, IGP participants packed 35 bags of healthy food at the Alameda Food Bank and brought these groceries to the family members and children of people who are incarcerated.

IGP designed systems to monitor and track anticipated parole dates of people participating in IGP’s program at San Quentin Prison. Through a new transition form made possible by the grant, IGP is now able to track the following:

- collect parole date information,
- tabulate expected geographic location and community to which each person will return,
- identify individual reentry interests and needs,
- develop a contact list, and

- reach out to every person who paroled from IGP over the last 15 years who resides in the Bay Area.

Through the delivery of weekly in-prison training sessions every Friday in San Quentin’s reentry yard, IGP continues to prepare people who are incarcerated for reentry and for participation in IGP’s reentry program. With the support of this grant, IGP has been able to serve more people at San Quentin Prison who are paroling. In January 2017, IGP’s cohort of in-prison participants began their first 12-week semester of training with about 30 participants, which marked the largest cohort IGP had served to date.

Pacoima Beautiful

In 2016, Pacoima Beautiful offered a training program for youth and adult community residents in Pacoima (Los Angeles area) to learn how to report environmental violations such as high levels of dust, waste, and foul and noxious odors to the appropriate local and state regulating agencies (i.e. local air quality management district). Pacoima Beautiful also hosted an after school program and recruits students from five local high schools.

Pacoima Beautiful worked to increase the capacity of Pacoima residents to participate in environmental decisions by offering them a 10-month Community Inspectors Program. Pacoima Beautiful conducted community meetings where participants helped:

- conduct outreach and develop outreach materials,
- develop curriculum for each workshop, and
- develop a toolkit to work toward reducing toxic sources of pollution.

Pacoima Beautiful taught skills in public participation and environmental awareness, including how to identify and report regulatory environmental violations. Pacoima Beautiful successfully provided 10 education workshops, five community tours, and 15 presentations and meetings, with a goal of reaching 300 Pacoima residents. The workshops addressed toxic pollution issues in the community and provided information on health risks and ways to reduce those risks.

Rising Sun Center for Opportunity

Founded in 1994 as a renewable energy education center, Rising Sun Center for Opportunity (Rising Sun) has since evolved into a green training, employment, and residential efficiency organization. Headquartered in Oakland, Rising Sun has served communities in Northern California since 2000.

The Rising Sun organization received funding for projects in the 2018 and 2019 award periods. Rising Sun provided “green” house call services to thousands of homes in the cities of Antioch, Bay Point, Manteca, Pittsburg, Tracy, the greater Stockton region, and homes in the San Joaquin and eastern Contra Costa counties. These calls educated residents about how to become more “green” in their daily practices. Rising Sun completed outreach to residents at community events, workshops, and outreach through social media and community partners. Through phone banking, Rising Sun set up all “green” house call appointments with residents who signed up at events. In 2018, Rising Sun scheduled 360 “green” house call appointments and attended 100 separate events to acquire the necessary sign ups in the targeted communities.

Rising Sun trained and employed 35 youth to conduct no-cost “green” house calls that included in-depth training, covering subjects ranging from eco-literary to residential efficiency to the “green” house call service itself. After their trainings, Rising Sun youth members performed energy and water assessments, installed water and energy saving devices (such as LED light bulbs and efficient shower heads), and provided tips on how residents can further save energy and water in the home.

Rising Sun partnered with We Share Solar, a non-profit organization that empowers students to become global change-makers. This partnership provided a hands-on opportunity for youth participants to help to build solar kits for an Indian Reservation in South Dakota that has limited energy access. Rising Sun’s partnership with The Energy Coalition, a social change organization focused on the energy field, offered a hands-on workshop where youth tested local sources of water and then learned how to build their own water filtration system. At the end of the workshop, the youth participants learned about multiple career pathways and employment/fellowship opportunities.

Rose Foundation for Communities and the Environment

The Rose Foundation for Communities and the Environment (Rose Foundation) worked to promote community capacity on key environmental issues, encourage collaboration between different stakeholders, engage community members in environmental decision-making, and give high school students in Oakland the knowledge and skills to participate

in environmental decision-making. The Rose Foundation educated youth on sources of and reduction strategies for toxic pollution, sustainability, urban greening, and climate risks strategies. The Rose Foundation provided summer internships with community-based organizations and local agencies to high school students so they may learn different perspectives on how to reduce toxic pollution and/or minimize community exposure to toxins. The Rose Foundation also offered school-year long internships to two high school students to further develop their leadership skills.

The 2018 Summer Climate Justice Youth Leadership Academy (Summer Academy), through the Rose Foundation, recruited 15 students from schools serving Oakland low-income communities of color. These students learned key aspects of community participation, neighborhood outreach, EJ and environmental issues, and spent six weeks receiving intensive training from Rose Foundation staff and program partners. Program members met at least three times a week for EJ trainings with Fridays designated as “days of action” to put the students’ knowledge of a specific EJ issue into practice. The Rose Foundation planted a garden at a local school, planted trees in a heavily impacted West Oakland neighborhood, removed trash from a local creek bed, and supported Fellows and other New-Voices-are-Rising students in their internship and college application processes.

CalRecycle Develops a Community Composting Grant Program

Can you imagine children not having a safe and healthy place to play outdoors? Or lack of natural spaces? Many disadvantaged communities in California lack access to greenspace, which can contribute to mental and physical health concerns.

Over the past five years, CalRecycle’s EJ program, in dialogue with community members, has found an increasing interest in support of community gardens.

In 2018, CalRecycle began planning for the Community Composting Grant Program, which will provide \$1.25 million from California Climate Investments to a single managing entity to increase the number and capacity of community groups operating small-scale composting programs. These sites will be located primarily, if not entirely, in disadvantaged and low-income communities.

The goal of the grant program is to:

- provide compost to enhance community gardens, grow fresh produce, and support neighborhood climate-adaptation projects;
- fund environmental awareness and education, as well as employment and training opportunities for priority populations
- provide resources for existing and new programs;
- identify success factors and provide models for effective and sustainable community composting operations;
- promote community-based solutions to increase organic material diversion in disadvantaged and low-income communities;
- reduce food and organic waste disposed in landfills; and



CalRecycle attends bus tour about environmental concerns in Fresno

- support SB 1383 (R. Lara, 2016) methane reduction goals.

The program will consist of funding small project sites, totaling one million dollars, made available to disadvantaged communities for composting and gardening projects. Additionally, the managing entity will be awarded \$250,000 to manage and administer the grants using regional partners to reduce administrative burden on CalRecycle staff.

Greenspace Community Composting for Greenspace Grants

Budget Allocation	Amount
Funding of Small Community Composting and Garden Sites	\$1,000,000
Funding for Administration of Small Composting and Garden Sites	\$ 250,000
Total	\$1,250,000

Technical Assistance

DPR Provides Technical Assistance with Pest Management in Child Care Centers in Imperial County

According to 2018 data from the Imperial County Office of Education, 84.3 percent of Imperial County residents are Hispanic and 72 percent of families primarily speak Spanish at home. Also, there are 61 licensed child care centers and 263 licensed family day care homes in Imperial County. DPR's Healthy Schools Act training data for 2018 shows that Imperial County has low training records compared to other counties. Even though DPR has training courses and outreach materials available in Spanish, these numbers demonstrate a clear need to bridge the gap between the community and DPR.

In March of 2018, DPR School & Child Care IPM Program staff reached out to both the Department of Social Services/Community Care Licensing Division and the Imperial County Office of Education (ICOE) to facilitate a child care IPM and Healthy Schools Act outreach event in Imperial County. ICOE was very receptive to the idea, and invited both DPR and Community Care Licensing to present information at an "Ask the Experts" Seminar on April 26, 2018 at

the Imperial County Office of Education. Imperial County Agricultural Commissioner, Carlos Ortiz, and staff with the CAC also attended the seminar and introduced themselves as a local resource.

More than 200 Wells Tested through the Drinking Water Well Testing Program

In the predominately Spanish-speaking agricultural communities of the Central Coast Region, nitrate contamination of groundwater has affected the drinking water quality of hundreds of households. The Central Coast Regional Water Quality Control Board sponsored free, voluntary drinking water testing for residents in the Region who get their drinking water from a private or shared groundwater well not associated with a public water system. Funds for the program came from the Central Coast Ambient Monitoring Program, which is funded by Central Coast Regional Water Quality Control Board enforcement settlement accounts.

In 2018, Water Boards staff developed a strategic outreach and communications plan tailored to rural residents and households in disadvantaged communities to create public awareness of nitrate contamination and encourage participation in the testing project; participated in community outreach events; and partnered with local community leaders, organizations, and media outlets to reach more than 5,000 people. Through this project, thousands of residents were educated on nitrate contamination, more than 200 wells tested, and staff anticipate testing another 800 wells. Staff learned that working with community leaders and advocates to build trust and going

LOOKING AHEAD

The grant program will be piloted in early 2020. The Requests for Proposals will be released in January 2020 with an anticipated award date in April 2020. The department will monitor the program's implementation and successes to fine-tune the program for future years, including the possibility of increasing funding.

door to door with information is very effective, but also time and resource intensive. Replicating this approach in other impacted communities across the state will require additional resources for well testing services and outreach.

Water Boards Provides Technical Resources to Address Harmful Algal Blooms (HABs) in Recreational Areas Used by EJ Communities

As California confronts the realities of climate change, HABs have become increasingly common in rivers, lakes and reservoirs, and they can be especially dangerous to children and pets. Most freshwater HABs are formed by cyanobacteria (formerly called blue-green algae). They are actually microbes that live in nearly every habitat on land and in the water, and they generally do not become a problem until the right mix of higher water temperatures, slow-moving water and excessive nutrients causes cyanobacteria to rapidly multiply and form HABs. Cyanobacteria can produce toxins, that may harm people, pets, wildlife, or livestock. Dogs and children are most likely to be affected by HABs because of their smaller body size, increased potential to ingest water, and tendency to stay in the water for longer periods. Exposure to cyanobacteria and associated toxins can cause eye irritation, skin rash, mouth ulcers, vomiting, diarrhea and cold or flu-like symptoms.

Throughout the past year, Water Boards staff responded to reports of Harmful Algal Blooms (HABs) in recreational areas used by EJ communities. For example, staff responded to reports of HABs at Lindo Lakes in San Diego County and the portion of the San Diego River known as Grantville Ponds within

the City of San Diego by verifying the blooms, posting signs, and providing materials to local water body managers for education and noticing. Staff also provided technical resources on HABs to stakeholders and public water systems in the Clear Lake area to optimize drinking water treatment and provide context for HAB conditions.

Policy Development Across the Agency



Ensuring that key policies address EJ priorities is another important way to institutionalize equity and EJ throughout the Agency. The following describes CalEPA's policies related to working with tribal governments, civil rights and language access.

Enhancing Language Access and Civil Rights Protections

CalEPA and its boards, departments and offices also invested in increasing language access during the reporting period.

DTSC's Civil Rights and Language Access Policies

In August 2016, DTSC and CalEPA reached a civil rights complaint agreement with Greenaction for Health and Environmental Justice (Greenaction) and El Pueblo/People for Clean Air and Water of Kettleman City (El Pueblo) regarding a 2014 permit expansion approval for Kettleman Hills Hazardous Waste Landfill. As one of the terms of the agreement, DTSC developed the Title VI Civil Rights and California Civil Rights Policy and Language Access Policy, as well as the Civil Rights Implementation Plan, to guide DTSC's Civil Rights program.

DTSC worked with a variety of stakeholders to develop the DTSC Civil Rights and Language Access policies.

In addition, DTSC created a Civil Rights and Language Access Implementation Plan to show how the policies would be implemented in the Department.

The *Title VI Civil Rights and California Civil Rights Policy* ensures that DTSC carries out all its duties and responsibilities in a non-discriminatory manner that complies with federal and state civil rights laws. The policy details the process for which to file a Civil Rights complaint with DTSC. The DTSC Civil Rights and Language Access Implementation Plan further details the complaint process.

The *Language Access Policy* ensures that DTSC carries out its commitment to early, equal, and meaningful access to critical DTSC programs, services, activities, and information to persons with Limited English Proficiency (LEP). It further ensures DTSC's compliance with federal and state civil rights laws. The policy details the process for which DTSC will implement the policy through program-and service specific language access plans in conjunction with the DTSC Civil Rights and Language Access Implementation Plan, which is currently in draft form.

DTSC developed the Civil Rights and Language Access Implementation Plan

to guide DTSC's implementation of its Title VI Civil Rights and California Civil Rights and Language Access Policies. This Implementation Plan includes a discussion of the key program areas where public access to decision-making is central to the function of the program. For these key program areas, the Implementation Plan provides specific steps and actions that DTSC will take to implement Title VI Civil Rights and California Civil Rights Policy and Language Access Policy.

CARB Tribal Consultation Policy

In January 2018, CARB released its draft Tribal Consultation Policy to guide CARB in its daily operations to work with tribes in a knowledgeable, sensitive, and respectful manner. The Tribal Consultation Policy details how CARB will continue to work to improve and strengthen its relationships with tribal governments and communities. CARB, in conjunction with CalEPA and DTSC engaged in three workshops throughout the state to solicit feedback and answer questions on the draft policy. CARB's tribal liaison also submitted the policy to the National Tribal Air Association for feedback. After incorporating comments, in September 2018, CARB released a revised draft policy that was subsequently presented to the Air Board as an informational item the following October. After some supportive discussion, at its October meeting, the CARB Board adopted the Tribal Policy.

LOOKING AHEAD

In 2019, the Water Boards adopted the Tribal Consultation Policy and provided tribal trainings for staff.

Water Boards Tribal Consultation Policy

In October 2018, the Water Boards released for tribal and public comment the draft Water Boards' Tribal Consultation Policy, which is intended to guide staff when engaging and consulting with all California Native American tribes (tribes). This Policy reaffirms the Water Boards' commitment to working with all tribes and building strong government-to-government relationships by recognizing tribes' unique sovereign status and concerns.

OEHHA Tribal Policy

In the fall of 2017, OEHHA released for public comment a draft *policy that commits the office to regular consultation with California Native American Tribes*.

The draft policy provides a framework for OEHHA to establish and maintain effective government-to-government relationships and engage in meaningful consultation with Tribes. The draft policy demonstrates OEHHA's commitment to understanding the culture, history and practices of California Native Americans as these relate to their environmental and public health concerns.

OEHHA's policy is modeled after the 2015 *CalEPA "Policy on Consultation with California Native American Tribes."* It also contains an action plan that includes:

Participating in meetings and soliciting input from the Cal EPA Tribal Advisory Committee,

- Designating an OEHHA Tribal liaison,
- Briefing OEHHA managers annually on Tribal activities, and
- Developing Memorandums of Understanding (MOUs) with California Native American Tribes on specific projects or subject matters, as appropriate.

OEHHA distributed a draft of the policy in late 2018 to all California Native American Tribes for review and comment. Those who provided comments did not suggest changes to the policy. OEHHA adopted the final policy in 2019.

DTSC Draft Tribal Consultation Policy

Over the last three years, DTSC has worked towards completion of a Tribal Consultation Policy. The policy details how DTSC will interact with Tribal governments and Tribal communities. This plan was developed in consultation with Tribal leaders across the state and will be final in 2020. DTSC has coordinated with other boards, offices and departments to provide stakeholder input on the draft policy.

LOOKING AHEAD

In June 2019, Governor Gavin Newsom issued an Executive Order N-15-19 where he apologized on behalf of the State of California to California Native Americans for past acts of violence, mistreatment and neglect throughout the state's history. Executive Order N-15-19 reaffirms the principles outlined in

B-10-11 and established a Truth and Healing Council.



Fostering & Integrating Community Expertise in Decision Making

Community-Driven Science

Community-driven science relies on the collective strength and knowledge of every day community members to take part in science—from framing and prioritizing research questions, collecting, analyzing and owning data, interpreting results, making new discoveries, and developing technologies and applications. In the context of EJ, community-driven science is about understanding and addressing the priorities of overburdened communities. CalEPA supports community-driven science through direct partnership on specific projects and through grant programs such as the EJ Small Grants program and CARB’s AB 617 Community Grants program.

San Ysidro Community Air Monitoring Study

Funded by a grant from OEHHA, the San Ysidro Community Air Monitoring Study was a collaboration between the San Diego community of San Ysidro, government, and academia to collect neighborhood air pollution data using advanced low-cost technology.

The goals of the study are to:

- Assess community air-quality concerns.
- Place 13 next-generation low-cost sensors in the community to assess air quality.
- Collect air quality data on particulate matter (PM2.5), ozone, nitrogen oxide, nitrogen dioxide, and carbon monoxide.
- Provide air-quality data for possible inclusion in CalEnviroScreen.
- Provide the San Ysidro community with access to real-time air quality information through the *San Ysidro Air Monitoring Study website and interactive map*.

OEHHA and CalEPA provided scientific expertise and logistical support. The University of Washington and San Diego State University provided equipment and technical guidance. Casa Familiar, a local non-profit organization, led community outreach and engagement.

The study began in January 2016 with extensive outreach through community

The San Ysidro Air Study partners



workshops to learn about residents' air quality concerns and their ideas on where to locate air monitors.

In August 2016, the first air monitor was installed in the community and by June 2017, a community website with real-time air data was launched. Residents were able to access detailed air-quality data on five air contaminants from a network of 13 community air monitors. The project partners worked together to decide where to place the monitors. A shared commitment to action and equity was key to their efforts to improve public health and engage the San Ysidro community in a "citizen science" project.

This study supported Casa Familiar's mission to support community development by providing data to inform efforts to reduce air pollution. The study also framed how data on neighborhood-level air pollution might be integrated to enhance the data used in CalEnviroScreen. Twelve San Ysidro residents participated as members of a Community Steering Committee (CSC), serving as community experts and liaisons between the residents and

study team.

To ensure scientific rigor, a technical advisory group was established to provide input on data quality. Group members included San Diego County, the San Diego Air Pollution Control District, the San Diego Association of Governments, the California Air Resources Board, and the California Department of Transportation.

OEHHA funding ended in April 2018. However, the research team obtained more funding from the US Environmental Protection Agency to maintain and upgrade the sensor network and add monitors south of the US – Mexico border in Tijuana, Mexico.

BIG VALLEY BAND OF POMO INDIANS COLLECT DATA TO ENSURE SAFE CONSUMPTION OF TRIBALLY IMPORTANT FISH

Big Valley Band Tribal members are descendants of the Xa-Ben-Na-Po Band of Pomo Indians that historically have inhabited the Clear Lake area for over 11,800 years. The Big Valley Band of Pomo Indians are a self-governing tribe, which means they have the right to govern their lands in much the same way that the Board of Supervisors governs the lands within the boundaries of Lake County. The Big Valley Band used EJ Grant Program funding to collect samples of three fish and shellfish species for cyanotoxin analysis to develop adaptation strategies to ensure the safe consumption of Tribally important fish at subsistence fish levels. The testing results analyzed from these samples were shared with other Pomo Tribes in the Lake County area, OEHHA, Clear Lake Cyanobacteria Task Force, and the public to determine viable safe fish consumption options. The Big Valley Tribe also worked with the California Department of Fish and Wildlife and OEHHA to develop a monitoring strategy framework for the project.

Data Tools & Resources

Many communities in California have multiple sources of pollution. Low-income communities and communities of color bear a disproportionate burden from environmental pollution. Additionally, these communities have socioeconomic characteristics that can intensify the adverse impacts on residents of those communities from environmental pollution. Understanding and addressing the vulnerability of communities most impacted by pollution using data tools and resources is critical to minimizing environmental health and justice disparities among Californians, and is a primary focus of CalEPA and OEHHA.

CalEnviroScreen

OEHHA has been widely recognized for its development of the California Communities Environmental Health Screening Tool, or CalEnviroScreen, which identifies communities in the state with the highest pollution burdens and vulnerabilities. The third version of the tool, CalEnviroScreen 3.0, was released in 2017, following two earlier versions released in 2013 and 2014.

The tool evaluates the collective burdens of multiple sources of pollution in California's 8000 census tracts by combining information from 20 indicators of pollution, health and socioeconomic factors in the state's census tracts. This produces a ranking

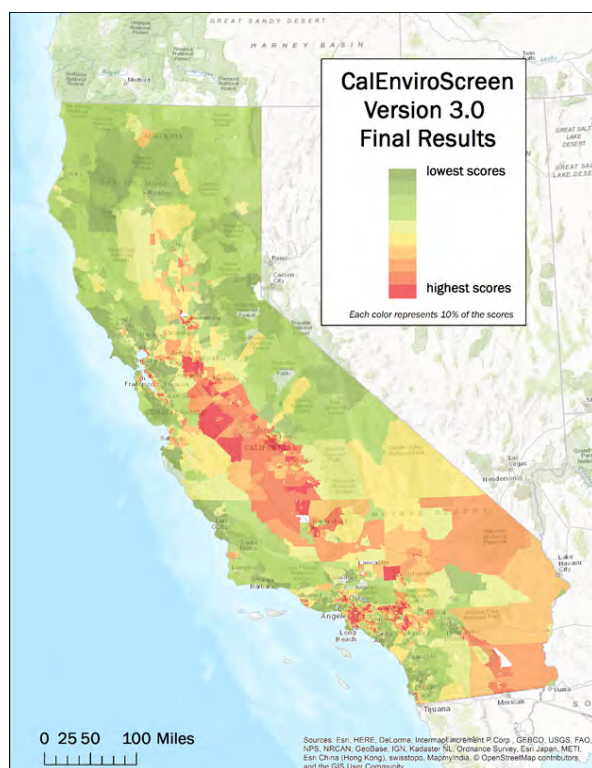
of communities across the state based on their pollution burdens and vulnerability to the effects of pollution. The 20 indicators are shown in the diagram below:

CalEnviroScreen calculates scores for each census tracts and produces in a series of maps, in both print and an online interactive format. The CalEnviroScreen data is also made available in a variety of formats.

While useful for screening, CalEnviroScreen is not a substitute for formal risk assessment of a single pollutant or pollutants originating from a single source. CalEnviroScreen provides a broad picture of potential cumulative impacts at a census tract level. The tool's results should be evaluated further with additional data in order to understand or assign responsibility for the issues or burdens confronting a particular area to a specific source or sources. Factors or influences arising from outside a community may also contribute. CalEnviroScreen is well suited to prioritize areas of concern for further evaluation or resource allocation.

Maps

The CalEnviroScreen maps are available online at [OEHHA's website](#), and maps have recently been released with the availability to view each indicator on its own. The CalEnviroScreen tool can also be viewed in Spanish.



Web Tools Inform the Public of Groundwater Quality Near Domestic Wells

Many Californians that rely on individual domestic wells for their water supply reside vulnerable and burdened communities. Homeowners and other domestic well users increasingly express interest in the quality of and potential threats to water supplied from domestic wells. The State collects and maintains water quality information for public supply wells, which can be used to determine potential threats to nearby domestic wells.

To make this information available to domestic well users and owners, in 2018 the Water Boards developed a publicly accessible online tool that allows users to enter an address and obtain water quality information about any wells within 2,000 feet of that address. The “Is My Property Near a 123- Trichloropropane (TCP) Impacted Water Well?” and the updated “Is My Property Near a Nitrate Impacted Water Well?” online tools search the entire Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System to locate any wells that had a recent detection above a drinking water standard.

The tools provide information on 123-TCP, nitrate, resources for domestic well owners interested in testing their well, a list of suggested analyses, and staff contact information should the well user have questions. Small water system users, members of the community, and environmental organizations also find these tools useful for easily identifying potential local groundwater quality issues. These tools and others are available on the [GAMA Program Online Tools](#).

Human Right to Water (HRTW) Portal

In 2016, to ensure transparency and access to HRTW information and activities, the Water Boards developed a [HRTW web portal](#) where the public can:

- see which communities and schools do not have, or are at risk of having, water that is not safe, clean, affordable, and accessible;
- learn about the problems public water systems face when it comes to providing clean and reliable drinking water; and
- access general HRTW information,

related water data, and funding resources.

- Additional water quality data is available through the *GeoTracker data management system* (for sites that impact, or have the potential to impact, water quality in California) and the *California Integrated Water Quality System Project* (a regulatory tracking system with reports on regulated facilities and violation and enforcement data).

Environmental Justice Compost Facility Map

The *Environmental Justice Compost Facility Map* provides information and transparency regarding the siting of facilities that handle organic materials. The map is comprised of facility sites from *CalRecycle's Solid Waste Information System (SWIS)* overlaid with *CalEnviroScreen, 3.0*, a screening tool that identifies communities that are disproportionately burdened by multiple sources of pollution.

This EJ map provides important information in light of *SB 1383* implementation and the estimated siting and operation of 50 to 100 new large-scale organic waste facilities to achieve the state's 75 percent organic waste recycling goal. This map helps relay information about existing facilities, including permitting, enforcement, and inspection documentation, site location, and contact information. This EJ map is intended to foster dialogue and awareness regarding the decision-making process, public health and safety, economic opportunity, and the overall well-being of California's communities in the siting of solid waste facilities. Planning for this map began in Fall 2018.

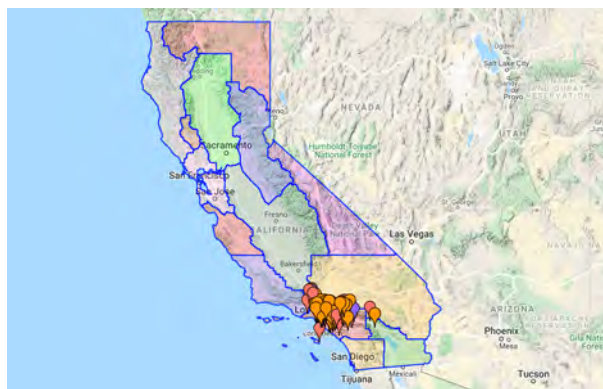
AB 617 Makes Community Level Source and Emissions Data More Accessible

A central requirement in AB 617 is for CARB and the air districts to work with local communities to identify what information is already available and what additional data needs to be collected to better understand air quality in their communities. For example, lower cost sensors and other emerging technologies can provide real-time measurements in more locations within communities to support daily health alert programs and record variations in air pollution across a community. These broader systems can complement the more expensive, regulatory-grade monitoring systems in place today. Under AB 617, air quality data from both community-operated and agency-operated monitoring is made available to the public through easily accessible *online tools*. Additionally, CARB is providing greater access to community-level source and emissions data so the public can easily see the emissions sources near where they live, along with information on the technologies available to reduce emissions.

CARB Pollution Mapping Tool

A result of the statutory mandates in AB 197 (E. Garcia, 2016), the CARB Air Pollution Mapping Tool is an online tool that allows users to locate and visualize emissions of greenhouse gases, criteria (smog-forming) and toxic air pollutants from large facilities (e.g., refineries, cement plants, electricity generation, etc.) in California. The tool provides a point-and-click interactive platform that allows users to select facilities by name, location, or industrial sector; view their reported emissions using maps, charts and tabular formats; and

download data for later use.



CARB Pollution Mapping Tool data view

The tool supports CARB's EJ efforts by providing communities with more accessible and transparent air quality information. Users can generate emission trends for predefined geographical regions, or they can use the tool's more advanced geographical calculator feature to create emission trends for a user-defined area. The tool also includes CalEnviroScreen map layers to help users locate facilities within the context of California's disadvantaged communities, allowing the public to see how much those facilities contribute to pollution in their neighborhood.

Studies of Air Pollution, Climate Change and Environmental Justice

OEHHA conducts studies of the effects of air pollution and a warming climate on humans, and whether air pollutants and heat may affect Californians differently due to their ethnicity or socioeconomic status. These studies inform the development of California's air-quality standards and can provide guidance on the state's efforts to mitigate and adapt to the effects of climate change.²

2 References: Guirguis K, Basu R, Al-Delaimy W, Vashishtha D, Hailey B, Clemesha R,

Air pollution: OEHHA has conducted a number of epidemiological studies on the health effects of particulate matter in California, and continues to work on studies looking at other widespread air pollutants identified in the federal Clean Air Act. These studies complement other studies done in California, nationally or internationally that examine the health impacts of air pollution exposure. In addition, OEHHA conducts studies on the health effects of exposure to vehicular traffic, which is an important source of criteria and toxic air pollutants, and heat exposure, which is predicted to increase with the progression of climate change.

OEHHA uses both its own studies and studies by other researchers to develop recommended air-quality standards for establishment by CARB.

Air Pollution and EJ

OEHHA investigates relationships between air pollution concentrations and socioeconomic status to identify subgroups and communities that are particularly vulnerable to adverse health effects. In one study, OEHHA found greater associations between some constituents of particulate matter (e.g., organic carbon and potassium, which

Guzman-Morales J, and Gershunov A. Heat, disparities, and health outcomes in San Diego County's diverse climate zones. *Geohealth* doi: 10.1029/2017GH000127, 2018.

Basu R, Pearson D, Ebisu K, Malig B. Association between PM_{2.5} and PM_{2.5} constituents and preterm birth in California, 2000-2006. *Pediatric and Perinatal Epidemiology*, doi: 10.1111/ppe.12380, 2017.

Benmarhnia T, Huang J, Basu R, Wu J, Bruckner T. Decomposition analysis of Black-White disparities in preterm birth: the relative contribution of air pollution and social factors in California. *Environmental Health Perspectives*, 125(10):107003. doi: 10.1289/EHP490, 2017.

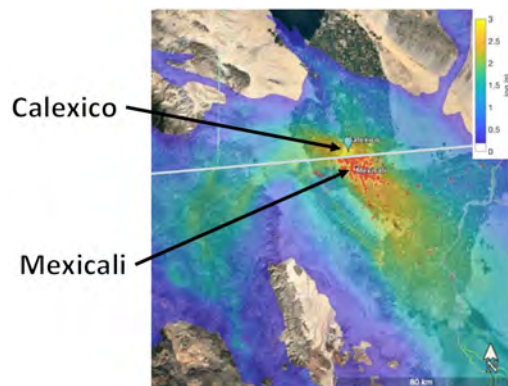
are associated with biomass burning) and preterm delivery for Asian mothers compared to white mothers. Black mothers had higher risk associated with ammonium and nitrate.

CARB's ongoing research studies addresses California's air pollution impact on the public health and the environment. Such efforts guides the development of State Implementation Plans and identification of the most optimal pathways toward reducing harmful air pollutants in our air. CARB's research studies not only evaluate statewide and regional air pollution concerns, but also challenges that are faced by EJ communities locally. Application of surface and airborne research studies with internal and external partners (e.g. NASA, NOAA, UC) make it possible for CARB to understand and address spatial discrepancies of air pollution in California, and create forward thinking and innovative control and mitigation strategies that are efficient and cost-effective. CARB's research findings and partnerships guides research performed under CalEPA and various research institutes around the world.

Identifying Sources Impacting Border Communities

Californians living near the southern border can be exposed to pollution from Mexico. The populations in this area of California are concentrated around the coast and the Imperial Valley areas. Several of the census tracts in these locations are considered disadvantaged, as indicated by the red areas on the map.

A CARB contract study by a San Diego State University-led team looked at sources of pollution in Mexico near the border. On this map, the red

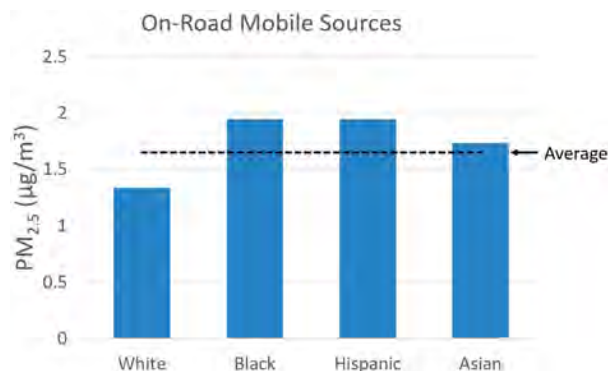


Emissions sources around Calexico, CA and Mexicali, Mexico.

dots are emissions sources in and around the city of Mexicali, Mexico. The multicolored plume represents emissions from Mexicali sources, with the yellow color indicating a larger impact on local concentrations. This study shows that emissions from Mexicali can reach California, especially impacting Calexico and the surrounding area. These emissions sources include industries, urban burning, and the port of entry. The results from this work can be used to inform the air quality layer of the next version of CalEnviroScreen.

Identifying Sources of Pollution that impact Disadvantaged Communities

CARB contracted with UT Austin to model exposure to air pollution from



PM_{2.5} exposure from on-road mobile sources is estimated to be higher for people of color. Source: Joshua Apte, UT Austin

mobile and stationary sources and how they impact communities of color. In this figure, PM2.5 exposures from on-road mobile sources, which include vehicles as well as brake and tire wear, is lower than average in white populations but higher than average in black, Hispanic, and Asian populations. Black and Hispanic communities are each exposed at a level 18% above average, while for white populations the exposure level is 19% below average. Similar results are found for off-road mobile sources and industrial sources.

Climate Change and EJ

OEHHA conducts human health studies that have found relationships between higher temperatures and adverse health outcomes such as death and illness. These adverse outcomes include hospital visits, emergency room visits, and children with birth defects. In one study examining heat and health outcomes in San Diego County, OEHHA found that coastal residents were more sensitive to heat than inland residents. Within the coastal region, heat-related illnesses were higher in the ZIP codes where the prevalence of air conditioning is lowest. Access to air conditioning is more likely among those with higher incomes. Latinos and non-white Hispanics are less likely to have air conditioning than whites, and renters are less likely to have air conditioning than homeowners.

CARB's research program addresses the interactions between air quality and climate change. The research indicates that higher temperatures and more extreme weather events lead to increased levels of criteria air pollutants such as ozone and particulate matter in the atmosphere that adversely affect health and the environment. Programs such

as AB 32 and SB 1383 directly address greenhouse gas emissions and its consequences by mandating greenhouse gas emission reduction targets. CARB will continue its studies to fully evaluate the disproportionate impact of climate change on EJ communities, particularly in the San Joaquin Valley and South Coast Air Basin.

Locating Methane Hotspots

Methane itself is considered to be non-toxic, but it typically is co-emitted with toxic pollutants and odors depending on the source. For instance, benzene from oil and gas facilities. The results of CARB in-house and contract work, have found methane hotspots in the energy, oil and gas, dairies, and waste sectors. Follow-up work on these methane hotspots is planned, as they can produce odors and other emissions that can impact public health.

Race, Ethnicity and CalEnviroScreen

OEHHA used CalEnviroScreen 3.0 scores and 2010 census data to evaluate potential associations between pollution burdens and vulnerabilities in California communities and their racial/ethnic composition. OEHHA evaluated the proportion of each race/ethnic group's population that resides in the 20 percent of census tracts with the highest pollution burdens and vulnerabilities. As illustrated in the figure, the fraction of different racial/ethnic groups living in the most impacted communities are lowest for white Californians, and highest for Hispanic/Latino and African American Californians. OEHHA also found that the disparity is even more pronounced for Latino and African American children under 10.

Biomonitoring California

The California Environmental Contaminant Biomonitoring Program³, also known as Biomonitoring California, is a collaborative effort of the California Department of Public Health (CDPH), OEHHA and DTSC. The primary goals of Biomonitoring California are to:

- Determine levels of environmental chemicals in a representative sample of Californians
- Establish trends in the levels of these chemicals over time
- Help assess the effectiveness of public health efforts and regulatory programs to decrease exposures to specific chemicals

EJ is a guiding principle in Biomonitoring California's enabling legislation, and one program priority is to carry out targeted biomonitoring studies in impacted communities. Some of OEHHA's specific environment justice activities are summarized below.

Asian/Pacific Islander Community Exposures (ACE) Project

The Asian/Pacific Islander (API) Community Exposure (ACE) Project was carried out in part because of prior biomonitoring studies⁴ that showed that the API community may be exposed to higher levels of certain chemicals, such as metals and per- and polyfluoroalkyl substances (PFASs), compared to people from other ethnic or racial groups. Factors affecting levels of these chemicals could include dietary preferences, such as regular consumption of fish and rice, and the

3 Established by Senate Bill 1379 (Perata and Ortiz, Chapter 599, Statutes of 2006) and codified in Health & Safety Code Sections 105440, et seq.

4 For example, *Biomonitoring Exposures Study (BEST)*

use of traditional remedies, such as some herbal medicines.

The ACE Project measured selected metals (arsenic, cadmium, lead, and mercury) in urine and/or blood, and PFASs in serum. Information from the ACE Project is helping to expand our understanding of chemical exposures in the API community, which makes up approximately 14% of California's population. The ACE Project is also examining how exposure sources might differ between Asian sub-populations. The first phase of the project (*ACE 1*) was launched in 2016, with the recruitment of 100 Chinese adults in the San Francisco Bay Area. The second phase of the project (*ACE 2*) was launched in 2017, with the recruitment of 100 Vietnamese adults living in the San Francisco Bay Area. Initial findings from the ACE Project were presented at the Program's Scientific Guidance Panel (SGP)⁵ meetings in *August 2018* (PFASs) and *November 2018* (metals).

East Bay Diesel Exposure Project

The *East Bay Diesel Exposure Project (EBDEP)* is a collaboration between Biomonitoring California and the University of California, Berkeley. Exposure to diesel exhaust is associated with serious health effects, including potential to exacerbate asthma and increased

5 The SGP is a panel of expert scientists from outside of state government, which plays a major role in implementing the *California Environmental Contaminant Biomonitoring Program (Biomonitoring California)*. The Panel's specific role includes making recommendations regarding the program's design and implementation, including specific recommendations regarding chemicals that are priorities for biomonitoring in California; and providing scientific peer review for the Biomonitoring California program.

cancer risk. OEHHA's CalEnviroScreen tool has shown that diesel exhaust emissions disproportionately impact certain communities. Diesel exhaust was identified in 2009 by the Program's SGP as a priority for biomonitoring, and has been highlighted as a key concern of communities across the state (see information below on our EJ listening sessions).

EBDEP is measuring levels of diesel exhaust chemicals in families in Alameda and Contra Costa counties. It is the first Biomonitoring California study to include children. EBDEP will help evaluate how diesel exhaust exposures vary within families, between communities, and over time. This information can be used to help evaluate the effectiveness of regulatory efforts to reduce diesel exhaust emissions.

Environmental Justice Outreach

In 2016 and 2017, Biomonitoring California conducted listening sessions with EJ organizations across the state. An electronic survey was also distributed to reach a larger number of organizations. The purpose of this effort was to obtain community input on environmental chemical exposure concerns and biomonitoring priorities. A summary of the findings was presented at the *November 2017 Scientific Guidance Panel meeting*. Recommendations from the Guidance Panel included using participatory research methods to involve community stakeholders in biomonitoring studies.

Children's Environmental Health Program

Protecting the health and future of our children is important to all Californians. In recognition of the fact that children are often more impacted by environmental

contaminants than adults, the Children's Environmental Health Program was established in the California Environmental Protection Agency (CalEPA) in 1999 and has been housed in OEHHA since 2012. The Children's Environmental Health Program serves as a resource for CalEPA and the State of California, performs outreach and education for the medical and public health community as well as for the general public, and coordinates with the CalEPA boards and departments to promote policies and efforts that protect children's health.

OEHHA has held annual scientific symposia with invited speakers from around the country to present on various themes in children's health.

- *"New Findings from California"*, held in 2016, focused on neurodevelopment and autism, diabetes and obesity, childhood leukemia and the environment, interactions between pesticide exposure and the social environment, and endocrine disruptors and cosmetics.
- *"Environmental Justice and Children"*, held in 2017, examined the potential factors underlying children's unique vulnerabilities to the cumulative impacts of pollution and socioeconomic and community stressors.
- *"Air Pollution and Lifecourse Neurological Impacts"*, held in 2018, examined the potential factors underlying children's unique vulnerabilities to the cumulative impacts of pollution and socioeconomic and community stressors and new findings on air pollution exposure across the lifespan and neurocognitive decline.

In 2017, OEHHA released a *report to the Legislature and Governor* on the Children’s Environmental Health Program. This report highlights the recent CalEPA Board and Department activities to protect children, including:

- Recent work to ensure that children are adequately protected from air toxics released from industrial facilities and other stationary sources.
- Newly adopted guidance values for chemicals that utilized state-of-the-art methods to account for child vulnerability.
- Collaboration with the US Centers for Disease Control and Prevention and other partners to create the booklet *A Story of Health Opens in New Window* to train physicians and other health providers to be aware of how environmental pollutants harm children.
- Symposia to train state scientists and academicians on children’s health issues, most recently the impact of climate change on children’s health
- Epidemiological studies on the public health impacts of climate change, in particular the impacts of heat on pregnancy and the health of the infant.

Field Testing of Fish Advisories in Multiple Languages

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 harmful chemicals. These advisories are posted on the OEHHA website and included in the California Department of Fish and Wildlife’s sport fishing regulations booklets.

OEHHA assesses the levels of mercury and other contaminants in fish from California’s lakes, rivers and coastal areas. Using this information, OEHHA issues 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. OEHHA issued its 100th fish advisory in 2018 and continues to issue approximately one new site-specific advisory per month.

To increase understanding of fish advisories for non-English speaking audiences, OEHHA worked with the University of California-Davis Extension (UCDE) to design new posters that were field-tested to determine their ease and effectiveness in communicating advice. In total, 15 ethnic groups were represented among the survey participants. OEHHA selected a new design based on the survey responses and created updated posters for all fish consumption advisories. Each of these new posters, along with the fact sheet for the fish advisory program, was translated into several languages, including Spanish.

OEHHA has also collaborated with UCDE to create videos describing the *benefits and risks of eating fish* and instructing consumers on *how to follow a fish advisory*. Spanish transcripts were developed for each of these videos.

Certified Bilingual Staff

DPR actively recruited and trained Spanish speaking, certified bilingual staff during the reporting period. DPR now has more than 10 certified Spanish bilingual staff. DPR produced and updated more than 50 bilingual outreach documents. The primary languages for translation was Spanish, Hmong, Punjabi, Korean, and Chinese. Many were distributed in print format – as brochures – but all are available on the DPR Website. They were distributed by DPR Enforcement, Worker Safety, outreach staff, CACs, and advocacy groups. This outreach is important because through plain-language brochures and community guides, we are able to reach consumers, community residents, school employees, and homeowners with pesticide safety information. Also, many documents were created to help employees and employers comply with pesticide safety laws – in urban and agricultural settings. Beginning in 2018, DPR began producing bilingual social media content, including infographics, video and photography slide shows to promote safety messaging, complaint reporting, and regulation updates. We distribute thousands of the brochures each year, and reaction to the bilingual content has been so positive that DPR has had to re-print more copies of various documents.

2019 Progress & Looking Ahead



Cancelling Registration for Chlorpyrifos

Chlorpyrifos is an organophosphate chemical pesticide product, widely used in California and elsewhere across the county. In 2015, the United States Environmental Protection Agency (US EPA) proposed to ban the product from use, due to its neurodevelopmental risks. While US EPA never finalized its proposed ban, chlorpyrifos was listed under *California's Safe Drinking Water and Toxic Enforcement Act, or Proposition 65*, as a developmental toxicant in December 2017. The listing was made after the state's Developmental and Reproductive Toxicity Identification Committee, which is convened by OEHHA, unanimously found that chlorpyrifos has been clearly shown to cause developmental toxicity and risks to children and farmworkers. In 2018, the Scientific Review Panel – another panel of experts convened by CARB – also concluded that chlorpyrifos was a toxic air contaminant and should be listed and regulated as such.

DPR and CalEPA are now working to implement the cancellation of chlorpyrifos, due to its known and potentially dangerous effects, and the findings of these two expert bodies. An important element of the cancellation process was the creation

of a work group designed to identify and recommend less toxic alternatives to chlorpyrifos. This diverse group includes representatives from EJ and community based organizations from throughout California, in addition to farmers and growers from areas across the state.

Improving Mitigation Practices for Solid Waste Facilities in EJ Communities

Starting in 2019, CalRecycle began developing a new EJ Mitigation Project, which presents a set of best management practices to protect, enhance and improve the quality of life for communities affected by nearby solid waste facilities, while striving to achieve state recycling goals.

The purpose of the EJ Mitigation Project (mitigation project) is to document and highlight proactive and preventative mitigation strategies for solid waste facilities (including recycling and composting facilities and operations) to incorporate in their operations to reduce their impact on public health and the environment.

As a next step in the mitigation project process, CalRecycle will develop a report to:

- Equip community members with information and resources that can improve their neighborhoods;
- Provide Best Management Practices (BMPs) that go above and beyond existing operating requirements to protect nearby communities and operate as better neighbors;
- Provide zoning, siting, and land use BMPs to local government (including planning staff and Local Enforcement Agencies); and
- Provide information and concrete examples of effective mitigation practices by solid waste facilities.
- CalRecycle intends for underrepresented communities, solid waste facility operators, and local governments to use the report, and intends to present the report in as accessible a format as possible.

This effort continues CalRecycle’s efforts to invite and include all stakeholders, especially underrepresented communities, into its decision-making process, and it aligns with CalRecycle’s tradition and commitment to maintain transparency in program planning and implementation.

LOOKING AHEAD

In 2020, CalRecycle will implement an outreach strategy to inform the development and finalization of the EJ Mitigation BMPs Report. The strategy will include meetings with community members and a range of stakeholders. The report will be completed by December 2020.

Reports on Carbon Neutrality

In December 2019, CalEPA also released a draft scope for public comment and review, of two studies, designed to support the state’s goal of achieving carbon neutrality by 2045. CalEPA is coordinating the production of these studies with two research teams from the University of California’s Institute for Transportation Studies and UC Santa Barbara, and the Governor’s Offices of Business and Economic Development and Planning and Research; the Labor and Workforce Development Agency; the Natural Resources Agency; the Transportation Agency; the Energy Commission; and CARB.

The first study will identify strategies to significantly reduce transportation-related fossil fuel demand and emissions, including transitioning to zero emission vehicles, accelerating the use of alternative fuel sources, and reducing vehicle miles traveled.

The second study will identify strategies to responsibly manage the decline of transportation-related fossil fuel supply across our State.

EJ, health, and equity principles will inform both studies. These include:

- **Equity:** Equitably distribute all benefits associated with achieving carbon neutrality. Achieve EJ and shared prosperity in the context of a changing climate.
- **Health:** Improve and protect public health. Prioritize health, safety, and opportunity for the state’s most vulnerable and disadvantaged residents, and for communities disproportionately burdened by pollution.
- **Environment:** Improve and protect environmental quality across the state.

- **Resilience and Adaptation:** Develop resilience and adaptive capacity locally, across the state.
- **High Road Jobs:** Foster sustainable and diversified local and regional economies, and prioritize the creation of accessible high quality jobs for all communities, particularly the state's most vulnerable and disadvantaged residents and resource-dependent communities.
- **Affordability and Access:** Deliver affordable, accessible, and reliable non-fossil fuel options and technologies.
- **Minimize Impacts Beyond Our Borders:** Minimize emissions leakage and external costs beyond the state's borders, to the maximum extent possible.

CalEPA anticipates that these studies will inform and support ongoing and planned state regulatory and policy processes, and that they will include an integrated understanding of the social, economic, workforce and community dimensions of the transitions to carbon neutrality. In addition, the studies may identify needed resources and investments and serve as a resource to guide and leverage future state funding, and will be accompanied by strategic outreach to and engagement of communities most impacted by the production and use of fossil fuels.

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