

Using Mapping and Data to Promote Justice

Planning Communities to Improve Health

Ensuring the Human Right to Water

Directing Resources to Disadvantaged Communities

Reducing Air Emissions in Impacted Communities

Passing Legislation to Promote Environmental and Climate Justice

California Environmental Justice Resources



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This compilation of resources is based on the unprecedented body of work to advance environmental justice in California. Organizers of the Environmental Justice Town Hall *Perspectives from California and Flint, Michigan for Creating the Healthiest Nation* held on November 11, 2018 at the 2018 American Public Health Association (APHA) Annual Meeting in San Diego, California compiled these policies and practices initially as a series of blog posts to engage participants in building on California's progress in environmental justice at the state level. Environmental justice is more important now than ever, and we hope these resources — now reformatted to be more web accessible — continue to engage community, academic and government practitioners across the United States on ways to advance environmental justice and public health.

The toolkit addresses six areas:

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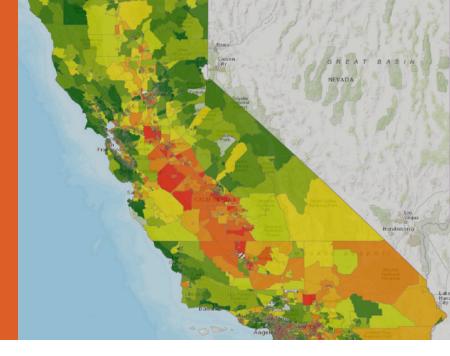
This set of policies and practices, the Environmental Justice Town Hall livestream recording, and other resources related to the Environmental Justice Town Hall can be accessed at http://graham.umich.edu/ca-env-justice/leaders. For more information, please contact the APHA Environmental Justice Committee Chairs Charles Lee (clee4ej@gmail.com) or Natalie Sampson (nsampson@umich.edu).



Preface

The struggle for environmental justice in California began decades ago and continues today. Environmental justice results from community level actions that build power and models, influence the political process and secure unprecedented legislation, and implement cutting-edge programs. Progress has not been easy. Many challenges had to be overcome, and political opposition has been consistent. The resources described in this compilation are the result of leadership from many communities, sometimes in collaboration with public agencies and sometimes in tension. There have been some significant successes at the local, regional and statewide levels. However, much more is needed to address the many challenges related to environmental injustice and the climate crisis if we are to build truly equitable, healthy and sustainable communities for the 21st century.

Using Mapping and Data to **Promote Justice**



KEY POINTS

- Screening tools like CalEnviroScreen and EJSCREEN combine environmental and demographic data to identify vulnerable communities most affected by pollution.
- EJ tools can inform programs and policy advocacy. For example, CalEnviroScreen is used to prioritize attention and resources to areas of concern for EJ.
- Many tools are publicly available and include training resources.
- Tracking networks provide information on pollution and health trends, distributions, and relationships.

An important first step to ensuring environmental justice (EJ) and health equity for all people in this country is to identify where people are most vulnerable or likely to be exposed to different types of pollution. To this end, the California Environmental Protection Agency (CalEPA) and the U.S. Environmental Protection Agency (USEPA) have developed mapping tools to ensure that programs, policies, and resources are appropriately inclusive and consider the needs of communities most burdened by pollution. Both the CalEPA and USEPA tools rely on the concepts of cumulative impacts and population vulnerability. The failure to consider these concepts has long been the root cause of EJ challenges faced by communities.

Mapping Tools

The Office of Environmental Health Hazard Assessment (OEHHA), on behalf of CalEPA, developed CalEnviroScreen in 2013 to help identify California communities most affected by multiple pollution sources and where people have increased potential to be more susceptible to pollution's effects. OEHHA developed this screening tool with extensive input from communities and drawing on models developed by academic researchers.² CalEnviroScreen uses environmental, public health, and socioeconomic data to calculate 20 pollution and population indicators and combines them for a composite score. These composite scores are produced for every census tract in the state.³ The tool is used by CalEPA and many other California agencies to prioritize where resources will be directed. Training videos are available on the OEHHA website.5

USEPA developed an analogous tool, EJSCREEN, in 2012 to help users identify areas across the U.S. with high pollutions burdens and vulnerable populations. 6 It offers another approach to examining cumulative impacts. The tool provides an EJ Index score that combines environmental and demographic information for 11 EJ indexes for every census block group in the nation, with options for users to define screening The failure to consider these concepts [of cumulative impact and population vulnerability] has long been the root cause of EJ challenges faced by communities.

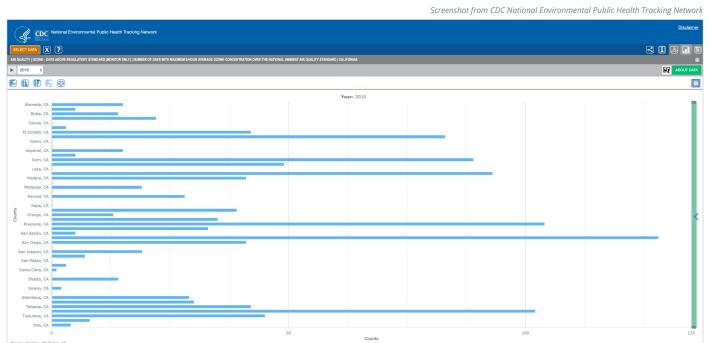
areas. Users can access the tool through an easy-to-use web- and mobile-based platform. A user guide and training videos are available on the EJSCREEN website.⁷

Tracking Networks

Another important EJ data resource, particularly for health information, is Tracking California.⁸ Environmental public health tracking is a type of surveillance. Surveillance is a method to monitor trends by collecting, interpreting, and reporting data. Jointly developed by the Public Health Institute's California Environmental Health Tracking Program (CEHTP) and the California Department of Public Health,⁹ Tracking California aims to improve public health by making science-based information on health trends, environmental threats, and the complex relationships between them publicly available and accessible to government, research, and community stakeholders.¹⁰ These users can view data and statistics for different environmental health exposures over a number of years — all through a web-based query system ¹¹

The Centers for Disease Control and Prevention's National Environmental Public Health Tracking Network integrates EJ data from national-, state-, and city-level sources to provide county-level statistics and infographics for key EJ issues. The network provides a data mapping tool so users can compare and contrast different EJ indicators between states, and it offers supporting information to make the data easier to understand.¹²

Use of data tools helps to identify areas of greatest vulnerability to environmental pollutants and prioritize attention and resources to such areas of concern for EJ. Enhancements to these mapping tools are continually being added and several states are now developing their own EJ mapping tool.



HEING MADDING AND DATA TO DOOM

Planning Communities to Improve Health



KEY POINTS

- There is a large body of literature documenting the negative history of land use, zoning, and planning for EJ.
- Unjust planning and land
 use can disproportionately
 expose populations to adverse
 environmental exposures (e.g.,
 air or water pollution) or reduce
 access to resources (e.g., healthy
 food, green space), affecting
 quality of life.
- Local land use challenges in California led to the adoption of California's Planning for Healthy Communities Act (SB 1000) in 2016, which requires cities and counties to integrate EJ into their long-term general plans.
- Toolkits and guidelines are available to help local governments, communitybased organizations, and other stakeholders collaboratively implement SB 1000.

Everyone who has worked on EJ issues understands the importance of planning and land use. The historical legacy of redlining—the creation of segregated neighborhoods based on race and ethnicity through concerted federal, state and local actions is in large part responsible for conditions in EJ communities today. Such conditions include the proximity of homes and schools to noxious facilities and unwanted land uses, economic disinvestment, unwalkable streets, and lack of access to fresh food, health care and other necessities for healthy living. Zoning decisions dictate the type of land use that is permissible within cities, and as such, have the incredible potential to shape which communities are exposed to environmental threats and which are not for years to come. Over the past 25 years, the EJ movement has begun to make significant strides against unjust land use and planning through advocacy, community mobilization, and legislation. The ultimate goal is to transform areas overburdened by pollution into healthy, equitable and sustainable neighborhoods.

One important victory for the nascent EJ movement took place in 1993 in East Austin, Texas. Due to discriminatory city planning and zoning laws, an industrial fuel storage tank farm had been located next to predominantly African-American and Mexican-American neighborhoods for 35 years, exposing the adjacent communities to soil and water contaminants. In response, People Organized in Defense of Earth and her Resources (PODER) worked to relocate the tank farm through community organizing and public advocacy, pressure, and protest. After years of court battles, soil and water testing, and letter writing campaigns, the companies moved their facilities and legislation was introduced to make information on health risks from toxic chemical exposures more accessible.¹³

Land use conflicts have also been central to EJ challenges in California since the movement was recognized. Activists in the state have identified the importance of general plans to this issue, with two key efforts giving rise to state-level EJ legislation. The Environmental Health Coalition has worked for decades on land use issues in

PLANNING COMMUNITIES TO IMPROVE HEALTH

Box 1: EJ Land Use and **Planning Resources**

SB1000 Implementation:

- SB 1000 Toolkit, CEJA and PlaceWorks, Inc.20
- · General Plan Guidelines: Required Elements, California Governor's Office of Planning and Research²¹

Many resources now exist on EJ, land use, and zoning issues. One example is:

• Fair and Healthy Land Use: **Environmental Justice and** Planning, written by Tony Arnold, published by the American Planning Association²²





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San Diego area communities with El concerns. In 2011, National City became the first city in California to adopt a Health and Environmental Justice Element in its General Plan.¹⁴ Following in 2014, and in response to a lawsuit filed by the Center for Community Action and Environmental Justice (CCAEJ), the City of Jurupa Valley also integrated an EJ Element into its General Plan. 15

Using the same approaches as National City and Jurupa Valley, landmark legislation introduced in 2016 required the integration of EJ into planning statewide. The Planning for Healthy Communities Act (SB 1000-Leyva, 2016), 16 mandates that all cities and counties in California must incorporate El into their general plans by developing discrete EJ elements, like National City and Jurupa Valley, or by ensuring EI is adequately reflected in other policies, programs, and objectives.¹⁷ The bill was authored by Senator Connie Leyva and co-sponsored by the California Environmental Justice Alliance (CEJA) and CCAEJ. More information on the critical role SB 1000 plays for individual communities can be found in these videos featuring National City Councilmember Alejandra Sotelo-Solis¹⁸ and Penny Newman,¹⁹ a former director and founder of CCAEI.

Several resources exist to assist local governments, planners, public health professionals, community-based organizations, and other stakeholders in implementing SB 1000 (see Box 1). These resources will make sure that local governments and community residents can work in harmony to proactively plan for and address EJ concerns when developing the long-term goals, policies, and visions to guide the future growth of their cities. Now is the time to start fixing land use mistakes and putting all communities on the path to a healthy, equitable, and sustainable future-one neighborhood at a time!

Ensuring the Human Right to Water



KEY POINTS

- Nearly one million California residents—most of color, lowincome, and marginalized—do not have stable access to safe and clean drinking water.
- Persistent community-level EJ efforts in California centered on empowerment of communities have resulted in some sustainable solutions.
- After many years of advocacy around safe water access, California passed the Human Right to Water Act (AB 685) in 2012, which requires state agencies to consider this right in policy, programming, and budgeting.
- The Human Right to Water Act is a touchstone for community organizing to allocate resourcesmost recently through the passage of the Safe and Affordable Drinking Water Fund (SB 200) in 2019, which will provide over \$1.4 B over the next 11 years to help implement safe and affordable drinking water projects.

California recognizes safe, clean, and affordable water as a human right (AB 685–Eng, 2012).²³ However, according to the California State Water Resources Control Board's²⁴ (Water Board) 2017 annual report, close to a million of the state's residents lack stable access to potable drinking water.²⁵ When most of these individuals are low-income, people of color, and marginalized, this becomes an EJ challenge.

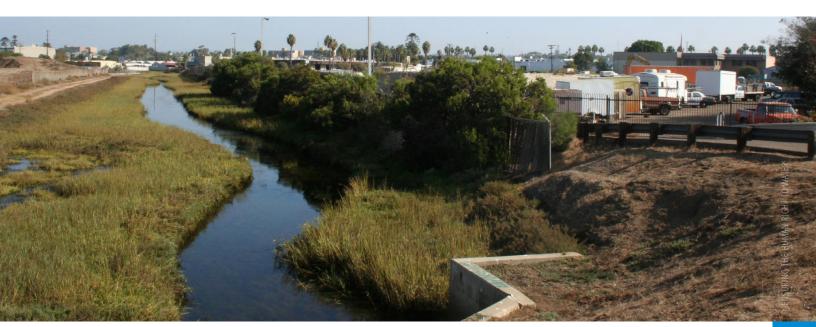
Like land use and planning, safe drinking water highlights the role of resource allocation in creating environmental injustices. Jonathan London, a professor at the University of California, Davis, ²⁶ recently led a study that analyzed water access in the San Joaquin Valley to identify and map communities-at-risk. Using demographic and spatial data and water quality reports, London and his colleagues found that in 2018 nearly 64,000 people in the San Joaquin Valley alone might have been exposed to unsafe drinking water as determined by poor infrastructure, racial and ethnic disparities, and noncompliance with current legislation. And as described in the report, the dynamics between well-resourced and resource-deprived communities are shaped by migration forces, segregation and discrimination, and an agricultural system built on low-wage labor and intensive irrigation.²⁷

There are community-level organizations that work to right these inequities. The Community Water Center works across California to build the capacity of local leaders to advocate for themselves for drinking water solutions and to provide technical and legal assistance. For example, the Community Water Center worked with the community of East Porterville to reduce water insecurity from drought. In 2014, hundreds of wells ran dry or became contaminated with nitrates, but through large-scale community outreach, households were made aware of available water sources and subsequently over 750 made the decision to connect with the public water system. As explained in this video, effective and persistent grassroots advocacy and community partnerships with state and local agencies were key in developing and implementing this sustainable solution. 40

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California was the first state in the U.S. to recognize officially water as a human right, but it took years of advocacy for this milestone to be realized. The movement to overhaul state-level legislation culminated in 2012 with the signing of the Human Right to Water Act (AB 685),³¹ and has served as a source of inspiration for EJ and water rights activists across the nation. Stories from the movement and of the California residents who suffered from the lack of access to safe, clean, and affordable drinking water are told in a documentary called 'Thirsty for Justice: The Struggle for the Human Right to Water',³² produced by the Unitarian Universalist Justice Ministry of California in association with the Environmental Justice Coalition for Water and the Unitarian Universalist Service Committee.³³

With AB 685 now in place, state agencies are required to consider the fundamental right to safe water in policy, programming, and budgeting. To facilitate this, the California Water Board took two important actions to achieve the vision of AB 685. First, in 2016, it issued Resolution 2016-0010, adopting the Human Right to Water as a core value and directing its implementation in Water Board programs and activities. Second, in 2017, it launched its Human Right to Water Portal. The website highlights efforts to meet the intent of AB 685, such as encouraging the consolidation of water systems, and it provides resources, including tools for schools to test for and address lead in drinking water and an interactive map that helps the public learn about the contamination issues water systems are facing and what they are doing to return to compliance. Most recently, the Office of Environmental Health Hazard Assessment, CalEPA, developed a draft framework and tool for evaluating California's progress in achieving the Human Right to Water. These are just initial steps towards guaranteeing affordable, accessible, acceptable, and safe water sufficient to protect the health and dignity of all residents.



DIRECTING RESOURCES TO DISADVANTAGED COMMUNITIES

Directing Resources to Disadvantaged **Communities**



KEY POINTS

- · California has embedded EJ in its climate change program by directing resources to disadvantaged communities.
- Provisions in the Global Warming Solutions Act (AB 32) of 2006 protect low-income communities and ensure they share in societal benefits from addressing climate change.
- · California uses mapping and data tools to identify disadvantaged communities that need resources for EJ.
- · Green energy programs and integrated planning efforts that reduce greenhouse gas emissions also direct resources to impacted communities and involve EJ organizations.

California has enacted a robust climate change program through a variety of policies. California is addressing climate change by reducing greenhouse gas emissions; accelerating the development of and transition to green energy; and preparing for changes such as hotter temperatures, more frequent and severe wildfires, and sea level rise.

The climate change program incorporates elements of EJ, primarily by directing resources to disadvantaged communities⁴⁰ to redress environmental injustices and increase capacity. Many communities, organizations, and individuals worked for many years to advance such EJ policies in California.

The Global Warming Solutions Act of 2006 (AB 32-Nuñez, 2006) set in motion an array of actions to reduce emissions and accelerate green energy.⁴¹ The legislation mandated that policies specifically consider impacted communities, and it established an Environmental Justice Advisory Committee⁴² to review plans and issue recommendations.43

The Act directed the State to design emission reduction measures in a way that "maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality,"44 and to conduct outreach to communities "that have the most significant exposure to air pollutants, including, but not limited to, communities with minority populations, communities with low-income populations, or both."45

Other important provisions required that greenhouse gas emission reduction rules and activities:

- neither disproportionately impact low-income communities nor interfere with efforts to achieve ambient air quality standards and to reduce toxic air contaminant emissions;46
- "consider overall societal benefits, including reductions in other air pollutants... and other benefits to the economy, environment, and public health;"47





Photo by Tony Reames

The [California] climate change program incorporates elements of EJ, primarily by directing resources to disadvantaged communities to redress environmental injustices and increase capacity.

 "direct public and private investment toward the most disadvantaged communities in California and provide an opportunity for small businesses, schools, affordable housing associations, and other community institutions to participate and benefit."⁴⁸

Programs to reduce emissions or develop clean energy sources are partially funded by the Greenhouse Gas Reduction Fund, 49 and additional legislation has integrated EJ elements into these programs. SB 535 (DeLeon, 2012) requires 25% of funds to go to projects that benefit disadvantaged communities and a minimum of 10% for projects physically located in those communities themselves. 50 The 10% minimum was increased to 25% under AB 1550 (Gomez, 2016). 51 SB 535 also described how policymakers should identify disadvantaged communities: by using the CalEnviroScreen tool, described in the Using Mapping and Data to Promote Justice section. The tool scores census tracts based on a variety of social, environmental, and health factors. The highest scoring 25% of census tracts and the highest scoring 5% for the pollution burden indicator are designated as disadvantaged communities. 52

Green energy incentives also incorporate provisions for disadvantaged communities. The California Public Utilities Commission (CPUC), which regulates electricity providers, created an advisory committee to represent individuals living in disadvantaged communities. ⁵³ The CPUC is directing resources to disadvantaged communities through initiatives for distributed solar generation on individual residences ⁵⁴ and multifamily buildings, ⁵⁵ vehicle charging, and small community solar projects.

Finally, through SB 375 (Steinberg, 2008),⁵⁶ the California Legislature developed a sustainable communities strategy⁵⁷ to better integrate transportation, housing, and employment planning at the regional-level to reduce vehicle use and greenhouse gas emissions and increase the sustainability and energy efficiency of communities. The legislation also requires that metrics of equity, such as availability of transit services to low-income populations, be used for planning, and that EJ organizations be included in the process. The plans are completed for major planning regions such as the San Joaquin Valley,⁵⁸ San Diego Region,⁵⁹ Southern California Region⁶⁰ (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties), and the Bay Area.⁶¹ Each region has taken a different approach. Notably, the Bay Area plan has explicitly included elements pertaining to justice.

Climate policies in California have institutionalized the designation of resources for highly impacted communities, and such approaches are now widely accepted as useful and appropriate. However, much work remains and, as the recent California wildfires vividly demonstrate, new challenges are looming large on the horizon.

REDUCING AIR EMISSIONS IN IMPACTED COMMUNITIES

Reducing Air Emissions in Impacted **Communities**



KEY POINTS

- The Community Air Protection Program (CAPP), implemented by the California Air Resources Board (CARB), aims to improve air quality in communities experiencing the worst air pollution by working closely with local residents, air districts, and partners.
- A 10-month public planning process produced a blueprint for CAPP, which outlines how the program will work, including processes for selecting communities, working with partners, making data accessible, and tracking progress.
- The CAPP Blueprint outlines strategies to reduce emissions of criteria air pollutants and toxic air contaminants, as well as criteria for development of community emissions reduction programs and community air monitoring plans.
- California legislature allocated nearly \$500 million over two years to CARB's air protection programming with funding directed to disadvantaged communities and Native American Tribes.

Established by the California Air Resources Board (CARB) as a result of the successful passage of AB 617 (C. Garcia, 2017),⁶² the Community Air Protection Program (CAPP) is an unprecedented effort to improve air quality in communities encountering the worst impacts of air pollution. 63 These communities often face multiple air pollution exposures, which intersect with socioeconomic vulnerabilities such as high poverty and unemployment rates. To guide implementation, CARB adopted a blueprint to frame engagement with local residents, air districts, and partners to identify local air quality problems, develop solutions, and track progress together. To ensure engagement, local steering committees have been established to guide communitylevel programs to reduce greenhouse gas emissions.

To develop its blueprint, CARB sought the input of stakeholders through a variety of means, including community tours, informational meetings with residents, workshops around the state, and open feedback. As described in a press release, the blueprint describes:

- Steps CARB will take to work with communities and air districts to improve air quality in impacted communities statewide;
- Process for selecting communities for targeted clean air improvements;
- Procedures for air districts and communities to set up air pollution monitoring;
- Better data on pollution sources and making data more accessible;
- Required elements to be included in community emission-reduction programs;
- Incentive investments to help purchase cleaner vehicles and equipment; and
- Metrics to track and report progress in reducing emissions.⁶⁴

The Community
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In 2018, CARB selected 10 diverse communities to deploy CAPP's mitigation strategies, such as implementing monitoring systems.⁶⁵ CARB anticipates these programs to develop and enforce regulation on facility audits, incentive programs, and land use and transportation planning.⁶⁶ Community efforts were funded by the California legislature, which allocated \$250 million for targeted incentive funding to support early actions, with an additional \$245 million in the 2018-19 budget.⁶⁷ To support AB 617 and actions to reduce air pollution, CARB awarded \$10 million in grants to 25 community groups and 3 Native American Tribes through its Community Air Grants⁶⁸ program. Supplemental Environmental Projects⁶⁹ can also address community needs.

As significant as the establishment of the Community Air Protection Program is, it is only the beginning. Residents in the most polluted and overburdened communities see great urgency in achieving reductions in air emissions, especially in light of evidence regarding increasing air quality impacts at the local level, cumulative impacts and the new challenges of climate change.

LA skyline pollution. Image by Jordan Pulmano on Unsplash



Passing Legislation to Promote **Environmental** and Climate **Justice**



KEY POINTS

- · Decades of community organizing, policy advocacy, and research led to numerous laws in California with provisions to address EJ.
- Among other things, environmental justice legislation in California:
 - Defines EJ based on concepts of cumulative impacts and vulnerability,
 - Adopts the CalEnviroScreen tool to identify impacted communities,
 - o Recognizes the need to protect highly-impacted communities from the impacts of climate change,
 - o Directs resources toward environmental improvements in disadvantaged communities,
 - o Establishes a human right to water,
 - Prioritizes enforcement and consideration of cumulative impacts on vulnerable communities from hazardous waste sites, and
 - o Requires local jurisdictions to incorporate EJ in their general plans.

California state law now includes provisions to address cumulative impacts of multiple stressors in environmental policies and to actively seek equity in climate change, transportation, and planning policies. A human right to safe water has been recognized. The notion that it makes sense to redress inequities in highly impacted communities has become mainstream and significant resources are now being allocated to meet this goal. Progress has not been easy, as this work has taken decades, and political opposition has been consistent.

Mandate for Justice in Environmental Protection

SB 115 (Solis, 1999) called upon the California Environmental Protection Agency (CalEPA) to address EJ in its programs. ⁷⁰ SB 89 (Escutia, 2000) mandated the convening of a working group to develop an interagency EJ strategy.⁷¹ These led the CalEPA to adopt a unified definition of EJ that incorporates concepts of cumulative impacts of multiple stressors and vulnerability of individuals and communities. In 2017, CalEPA's Office of Environmental Health Hazard Assessment released Version 3 of CalEnviroScreen, widely used to identify highly impacted communities.72

Climate Change Goals and Actions

Building on AB 1493 (Pavley, 2002), which addressed reductions in vehicle emissions, 73 AB 32 (Nuñez, 2006)⁷⁴ and SB 32 (Pavley/E. Garcia, 2016)⁷⁵ set enforceable goals for reducing greenhouse gas emissions in California. They also recognized the need to protect disadvantaged communities and to create benefits broadly for the people of the State. While the State extended its cap-and-trade program in 2016, which was a controversial decision largely opposed by the EJ community, it was accompanied by additional legislation establishing EJ regulations. AB 197 (E. Garcia, 2016) required the California Air Resources Board "to protect the state's most impacted and disadvantaged communities... [and] consider the social costs of the emission of greenhouse gases" in preparing plans to meeting greenhouse gas reduction goals.76

The notion that it makes sense to redress inequities in highly impacted communities has become mainstream and significant resources are now being allocated to meet this goal. **Progress has not** been easy, as this work has taken decades, and political opposition has been consistent. Additionally, AB 617 (C. Garcia, 2017) funded work to reduce emissions and improve monitoring.77

Sustainable Communities Strategies

Regional entities were directed by SB 375 (Steinberg, 2008) to plan for reduced greenhouse gas emissions from vehicles and the built environment in part by linking planning efforts around transportation, housing, and employment.78

Incentives for Greener Technologies

SB 1204 (Lara, 2014)⁷⁹ and SB 1275 (DeLeón, 2014)⁸⁰ provided new resources for clean energy development, such as solar roofs and electric cars, in disadvantaged communities.

Human Right to Water

AB 685 (Eng, 2012) established safe, clean, affordable, and accessible water as a human right and required all relevant state agencies to consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria.81

Investment of Climate Revenues in Disadvantaged Communities

SB 535 (DeLeón, 2012) dedicated a share of revenue from climate programs to environmental improvements in disadvantaged communities, as defined by their cumulative impacts and socioeconomic status.82

Cumulative Impacts in Hazardous Sites

AB 1329 (Perez, 2013)83 and SB 673 (Lara, 2015)84 mandated that the Department of Toxic Substances Control prioritize enforcement and address cumulative impacts and vulnerable communities in its work on hazardous waste sites. Implementation is pending.

Planning for Healthy Communities

SB 1000 (Leyva, 2016) requires local jurisdictions to adopt EJ goals and policies or an EJ element into their general plans. 85 This is expected to increase consideration of social determinants of health for the built environment in city planning.



End Notes

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