

# MAKING EQUITY REAL: COMMUNITY CLIMATE RESILIENCY

## WHY EQUITY

Equity is not just a commitment – it is a practice. Equity is transforming the behaviors, institutions, and systems that disproportionately harm marginalized communities.

Due to a history of discriminatory government practices, communities of color have borne the brunt of generational disparities in socioeconomic and health outcomes, as well as in ownership over the decisions that impact them. Equity means increasing access to power, redistributing and providing additional resources, and eliminating barriers to opportunity, in order to empower marginalized communities to thrive and reach full potential.

## THE PROBLEM

California is already experiencing the impacts of climate change; drought, increased wildfires, extreme heat and sea level rise are present in all areas of our State. Comprehensive climate change action requires both climate mitigation and climate adaptation strategies because greenhouse gas reductions, on their own, will not help impacted communities adapt or build resilience to climate change. Our need to adapt to a changing environment is ever more pressing, particularly among the most impacted and least resourced communities.

Our collective action must address the needs of the most impacted communities first and most. We must develop climate adaptation strategies that truly center equity and uplift frontline communities so that they do not simply “bounce back” to the unjust status quo after climate disasters strike but are able to “bounce forward” as healthy, resilient and sustainable communities.<sup>1</sup>

The AHSC program acknowledges that the effects of climate change will continue and that climate resiliency is a key part of the planning and implementing your Project. Therefore, the narrative component of the AHSC application requires that you identify specific climate vulnerabilities and how your Project aims to address specific concerns.

## PLANNING FOR EQUITY

Below are some guidelines for putting an equity lens into your analysis of climate vulnerabilities on the residents and community members of your Project.

- Explicitly state a commitment to equity in the goals, vision, and values of the Project -- up front, while you are planning for it. Outline equity goals and metrics at the beginning to use as a roadmap for implementation.
- To understand the projected climate impacts and bring targeted benefits to frontline communities, it is paramount to include community involvement. You should have early, continuous and meaningful engagement with the communities impacted by the Project to ensure that implementation reflects their needs, perspectives and input. See the *Community Benefits & Engagement Handout* for best practices.

## THE PROCESS

The narrative component of the AHSC application requires that you list projected climate impacts such as temperature and extreme heat, precipitation, sea level rise and inundation, and wildfires.

At a minimum, you should utilize climate vulnerability assessment tools to identify your community’s exposure risks and adaptive capacity to climate threats.<sup>ii</sup> Using scientific research, relevant reports and studies, and ground-truthing that data with community members, assess how severe each climate change impact will be for different demographics of the population. You should be identifying specific populations present in the Project Area that may be harmed by climate hazards, including different populations that are considered disadvantaged persons. Consider age, physical and mental health, employment, citizenship status, and other socioeconomic factors. Populations already strained by economic or environmental disadvantages, or those with disabilities or related limitations, often have a lower capacity to adapt.

The following table provides several climate vulnerability assessment tools, organized by those that evaluate climate risk and those that evaluate adaptive capacity. These tools can be used to identify climate vulnerabilities and impacts for your community.

CLIMATE VULNERABILITY ASSESSMENT TOOLS <sup>iii</sup>	
Tools to Evaluate Climate Risk	
<a href="#">Cal-Adapt</a>	California has invested significant resources in developing climate change information for the entire state at a resolution that is useful for planning at both a statewide and regional scale. These data are called downscaled climate data. Downscaling is an analytical tool that starts with data from global climate models and then makes adjustments using statistical techniques and/or numerical models to provide projections of climate impacts at a finer scale. California has developed a set of downscaled climate data for the State using the Localized Constructed Analogs, or LOCA, statistical downscaling technique. All data are available through CalAdapt, an online tool that displays climate impacts in a spatial format. The platform also includes a web Application Programming Interface (API) to allow users to build their own applications. Accessible data includes annual averages, extreme heat, sea level rise, snowpack, wildfire, cooling degree days and heating degree days, downscaled climate projections, and more.
<a href="#">Urban Heat Island Index for California (UHII)</a>	The Urban Heat Island Index California, developed by the Environmental Protection Agency, quantifies the extent and severity of urban heat islands for individual cities, including urban heat island interactive maps that show the urban heat island effect for each census tract in and around most urban areas throughout the state. This can also help identify and prioritize areas across the state for adaptation efforts such as urban greening and cool roofs and pavements.
<a href="#">Indicators of Climate Change in California</a>	The 2018 Indicators of Climate Change in California report, prepared by the Office of Environmental Health Hazard Assessment (OEHHA), presents 36 indicators that are grouped into four categories: Human-influenced (anthropogenic) drivers of climate change, such as greenhouse gas emissions; Changes in the state’s climate; Impacts of climate change on physical systems, such as oceans, lakes and snowpack; Impacts of climate change on biological systems – humans, vegetation and wildlife. The indicators can serve as a tool for communicating technical data in relatively simple terms and help portray the interrelationships among climate and other physical and biological elements of the environment. Many of the indicators reveal evidence of the already discernible impacts of climate change, highlighting the urgency for the state, local government and others to undertake mitigation and adaptation strategies.

### Tools to Evaluate Adaptive Capacity

**CalEnviroScreen (CES)** CalEnviroScreen 3.0 is a screening tool that identifies communities most affected by and vulnerable to the effects of many sources of pollution and population-based disparities. It aggregates state-wide environmental, health, and socioeconomic information to produce scores for every census tract in the state. A census tract with a high score is considered more disadvantaged than a community with a low score as a result of pollution burden and population characteristics. When overlaid with climate impact and exposure data, CalEnviroScreen can provide insight into built and environmental exposure factors that contribute to vulnerability.

**Climate Change and Health Vulnerability Indicators for California (CCHVI)** The CalBRACE Project developed climate change and health indicator narratives and data to provide local health departments and partners with tools to better understand the people and places in their jurisdictions that are more susceptible to adverse health impacts associated with climate change, specifically extreme heat, wildfire, sea level rise, drought, and poor air quality. The assessment data can be used to screen and prioritize where to focus deeper analysis and plan for public health actions to increase resilience.

**Healthy Places Index (HPI)** The California Healthy Places Index (HPI) is an interactive online data and GIS mapping tool that allows users to easily visualize the social and economic conditions that shape health in each neighborhood in California. HPI is validated with life expectancy and provides census tract rankings across the state. As of 2017, the Healthy Places Index platform also includes climate change indicators. This tool provides graphic overlays of climate risks, vulnerabilities and indicators of adaptive capacity, along with the healthy places index score, and other key decision support layers. HPI moves data into action by providing policy briefs outlining best practices to address risks associated with climate indicators.

**Regional Opportunity Index (ROI)** Another mapping tool to identify census tracts lacking in opportunities and needing investment is the Regional Opportunity Index (ROI) from the UC Davis Center for Regional Change. The goal of the ROI is to help target resources and policies toward people and places with the greatest need. The tool incorporates both a “people” component and a “place” component, integrating economic, infrastructure, environmental, and social indicators into a comprehensive assessment of the factors driving opportunity

In addition to utilizing climate vulnerability assessment tools, you should also measure socioeconomic vulnerabilities. Many frontline communities including low-income, disadvantaged, communities of color, indigenous peoples, tribal nations, and immigrant communities are particularly vulnerable to climate impacts because of decades-long, pervasive socio-economic conditions that are perpetuated by systems of inequitable power and resource distribution. As a result, these communities are starting from a place far worse than their more affluent, white counterparts, and accordingly have fewer resources to prepare for, adapt to, and recover from the effects of climate change. If vulnerability assessments fail to include socioeconomic vulnerabilities, then they are not providing a true indication of a community’s adaptive capacity or sensitivities.

We similarly recommend utilizing health needs assessments, education assessments and other societal assessments. As described earlier, it is also critical that you ground-truth or verify this data with a community fact-finding process involving residents to better identify true vulnerabilities as experienced by the community.<sup>iv</sup>

In completing your AHSC application, you must reference the up-to-date climate vulnerability data that you used to identify community vulnerabilities, and provide site-specific descriptions of the Project Area’s adaptation needs.

### SELECTING CLIMATE RESILIENT STRATEGIES FOR AN AHSC APPLICATION

After assessing the climate vulnerabilities, particularly for frontline communities, we recommend that you implement multiple climate adaptation and resiliency elements for your entire Project Area, including and beyond housing and transportation. How can

your application include practical, measurable and innovative ways to address multiple community needs and climate risks? You must draw a direct line between vulnerabilities and proposed adaptation measures.

Specifically, the AHSC narrative requires that potential climate impacts are taken into consideration in the design of the proposed Project. For example, the Project could incorporate preservation and/or restoration of ecological systems to increase resiliency to climate change such as planting street trees and greenspace for water catchment, infiltration and surface cooling.

The table below offers examples of additional strategies that help communities adapt and build resilience to climate change. Recognizing that these strategies do not explicitly bring benefits to vulnerable communities, it is important to prioritize resiliency strategies that often shared, direct and multiple benefits to communities. Low-income communities of color are more likely to be at the frontlines of pollution and climate change impacts, have poorer health outcomes,<sup>v</sup> and have longer commutes.<sup>vi</sup> The strategies should aim to improve the resilience of the built environment and lead to a reduction in vulnerabilities while generating beneficial environmental, health, and economic outcomes.

Recommendations to Increase Adaptive Capacity and Reduce Exposure Risk	
<i>Multi-Benefit</i>	<ul style="list-style-type: none"> <li>• Improve air and water quality</li> <li>• Reduce GHG emissions and toxic chemical emissions</li> <li>• Energy conservation</li> <li>• Maintain watershed health</li> <li>• Multi-benefit green infrastructure investments in or benefiting under-resourced communities</li> <li>• Complete community emergency preparedness plans, including maps and strategies for providing relocation and community services to frontline communities in case of disasters</li> <li>• Studies, plans or planning methods that advance a community's effort to address sea level rise, flooding, wildfires, and mudslides, which may include the use of natural infrastructure to reduce the impacts of climate change</li> </ul>
<i>Extreme Heat</i>	<ul style="list-style-type: none"> <li>• Planting trees to reduce the heat island effect</li> <li>• Enhanced insulation</li> <li>• Cool roofs</li> <li>• Reduction of electrical grid demand</li> <li>• Permeable land cover</li> </ul>
<i>Drought</i>	<ul style="list-style-type: none"> <li>• Water conservation mechanisms</li> <li>• Planting of native, drought-tolerant vegetation</li> </ul>
<i>Sea Level Rise and Inland Flooding</i>	<ul style="list-style-type: none"> <li>• Rainwater capture and/or infiltration systems</li> <li>• Natural/grey infrastructure to protect against flooding</li> <li>• Stormwater management</li> <li>• Wetland and floodplain restoration to reduce risk of coastal flooding from sea level rise</li> <li>• Mitigation of the effects of sea level rise/flooding</li> </ul>
<i>Wildfire</i>	<ul style="list-style-type: none"> <li>• Fuel management work to maintain ecosystem health</li> <li>• Rehabilitation work on landscape impacted by wildfire</li> <li>• Fire hazard prevention work</li> <li>• Other fire mitigation or preventative measures for non-forested habitats</li> </ul>

While these are suggested strategies, your AHSC application will get maximum points if it demonstrates that the Project goes beyond program requirements to address climate vulnerabilities. Specifically, you will get maximum points if the strategies described mitigate at least one vulnerability in a significant way or makes substantial efforts to address multiple vulnerabilities. In addition to identifying strategies, you will want to describe in your narrative how the Project conforms to climate adaptation and resiliency strategies in the Safety Element, etc. of local jurisdictions' general plans. By utilizing an up-to-date vulnerability assessment to identify climate risks *and* incorporating design features throughout the entire Project that increase the community's resilience to climate change, the Project will receive the maximum points for this component of the AHSC application.

### SELECTED RESOURCES

[\*Advancing Climate Justice in California: Guiding Principles and Recommendations for Policy and Funding Decisions\*](#)  
Climate Justice Working Group

[\*Making Equity Real in Climate Adaptation and Community Resilience Policies and Grant Programs: A Guidebook\*](#)  
The Greenlining Institute

[\*SB 1000 Toolkit: Planning for Healthy Communities\*](#)  
California Environmental Justice Alliance

[\*Pathways to Resilience: Transforming Cities in a Changing Climate\*](#)  
Movement Strategy Center

[\*Defining Vulnerable Communities in the Context of Climate Adaptation\*](#)  
Integrated Climate Action and Resiliency Program (ICARP)

- 
- <sup>i</sup> Movement Strategy Center, *Pathways to Resilience*. Retrieved from <https://movementstrategy.org/directory/%EF%BF%BCpathways-to-resilience/> on June 24, 2019.
- <sup>ii</sup> Adaptive capacity is defined as the ability of the population to resist or recover from the effects of the hazards under current conditions.
- <sup>iii</sup> Governor's Office of Planning and Research, *Defining Vulnerable Communities in the Context of Climate Adaptation*. Retrieved from [http://opr.ca.gov/docs/20180723-Vulnerable\\_Communities.pdf](http://opr.ca.gov/docs/20180723-Vulnerable_Communities.pdf) on June 20, 2019.
- <sup>iv</sup> California Environmental Justice Alliance, *SB 1000 Toolkit: Planning for Healthy Communities*. Retrieved from <https://caleja.org/2017/09/sb-1000-toolkit-release/> on June 21, 2019.
- <sup>v</sup> Katz C. & Kay J. (2012). Pollution, Poverty, and People of Color: Living with Industry. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/pollution-poverty-people-color-living-industry/> on August 26, 2019.
- <sup>vi</sup> Razza, M. (2015) It's About Time: The Transit Time Penalty and Its Racial Implications. *Isaiah*. Retrieved from [https://d3n8a8pro7vhmx.cloudfront.net/mnnoc/pages/649/attachments/original/1431439958/MN-transit-report\\_final\\_web.pdf?1431439958](https://d3n8a8pro7vhmx.cloudfront.net/mnnoc/pages/649/attachments/original/1431439958/MN-transit-report_final_web.pdf?1431439958) on August 26, 2019.