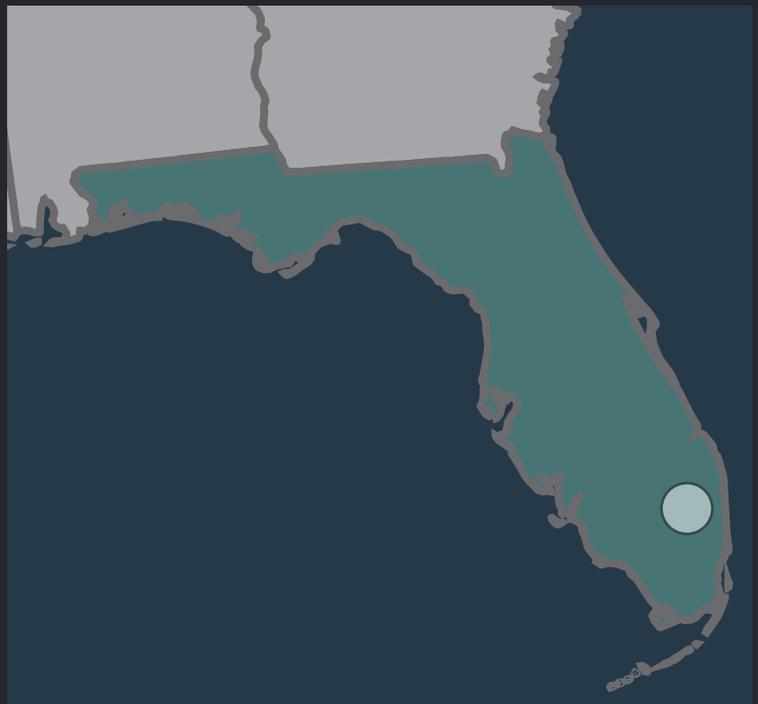
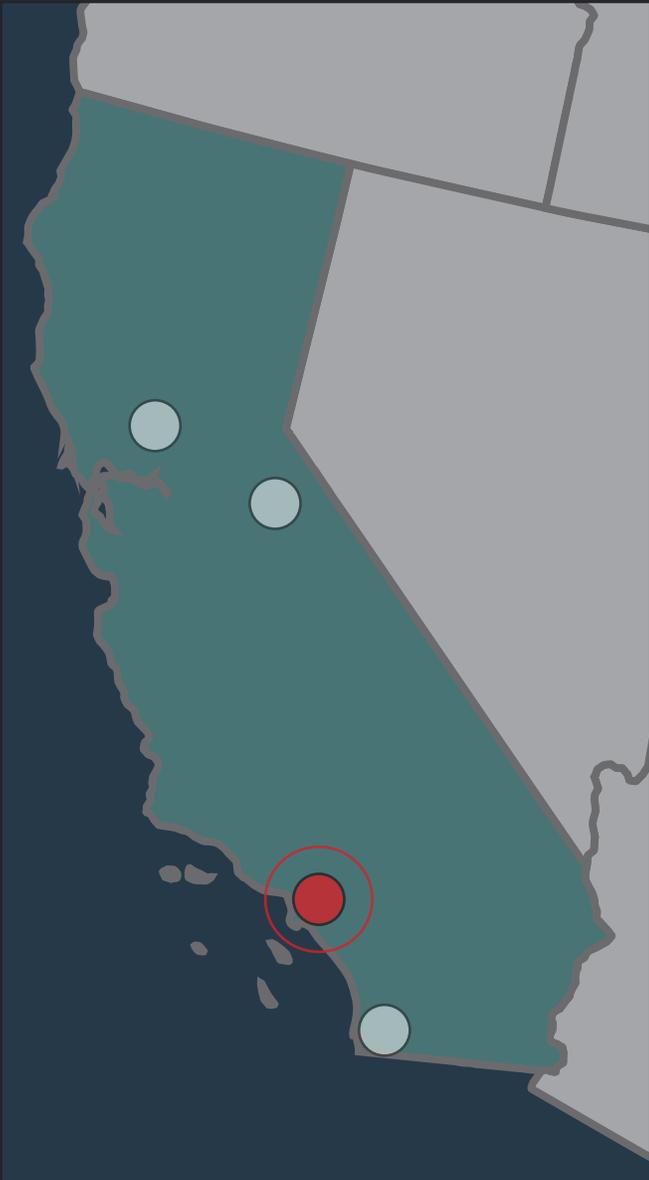




Lessons in Regional Resilience

Los Angeles Region

The Los Angeles Regional Collaborative for Climate Action and Sustainability



Lessons in Regional Resilience:

The Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

LARC

Los Angeles Regional Collaborative
for Climate Action and Sustainability

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Case Studies in Regional Collaboration: This report is part of a series of six case studies (<http://www.georgetownclimate.org/reports/lessons-in-regional-resilience.html>) that explore lessons that are being learned by climate collaboratives from around the United States that are bringing together local governments and other stakeholders at the regional level to both reduce carbon pollution (mitigation) and prepare for the impacts of climate change (adaptation). These case studies explore the following collaboratives:

- The Los Angeles Regional Collaborative for Climate Action and Sustainability in California
- The San Diego Regional Climate Collaborative in California
- The Capital Region Climate Readiness Collaborative in California
- The Sierra Climate Adaptation and Mitigation Partnership in California
- The Southeast Florida Climate Change Compact in Florida
- The King County-Cities Climate Collaboration in Washington State

Each case study explores the history and development, structure and decisionmaking methods, funding sources, roles and initiatives of each of these climate collaboratives. A synthesis report also explores lessons that can be learned by comparing the efforts of each collaborative on climate policy in their regions.

These case studies were supported by a grant from the Kresge Foundation. In developing these case studies, the Georgetown Climate Center collaborated with the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA). The authors are grateful to the local officials and other stakeholders in each collaborative who graciously spent time being interviewed and providing invaluable feedback on this work.

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INTRODUCTION

In 2008-2009, several leaders representing public, nonprofit, and academic organizations in the Los Angeles County region came together to discuss forming a regional collaborative to help catalyze climate action in the region. The Los Angeles region is projected to see significant impacts as a result of climate change, including vast increases in the number of extreme heat days, significant decrease in annual snowfall and declining snowpack, increasing risk of severe wildfires, and sea-level rise that will affect the one of the world's busiest ports and other critical infrastructure on the coast. In recognition of the need to plan for these changes and encourage cross-jurisdictional solutions, the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) was established through the course of these conversations.

LARC, which is based at the University of California – Los Angeles (UCLA), brings together a range of members, including local governments, regional agencies and authorities, universities, nonprofits, and other entities. Together, these members work to improve coordination of climate change initiatives and policy in the Los Angeles County region by facilitating knowledge exchange and maximizing resources. With close ties to UCLA and other universities, LARC also helps bridge gaps between local decision-makers and the academic community so that climate-related research can be better informed by informational gaps at the local level.

One of LARC's major initiatives involved developing a "Framework for Regional Climate Action and Sustainability," which will provide resources and information to help improve and streamline decision-making across the region. The Framework is designed to clarify federal, state, and local requirements relating to climate action, and identify specific priorities and best practices that can increase resilience in local communities and the region as a whole.¹ In addition to local engagement, LARC helps to ensure that the Los Angeles region has a voice at the state level through its involvement in the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA), which provides greater opportunities for climate collaboratives in California to interact with each other and with representatives from state government on policy issues affecting local jurisdictions.

Other regions can draw lessons from how LARC formed, its structure, and its efforts to facilitate climate adaptation across jurisdictional lines and levels of authority in the Los Angeles region. This case study first describes the geographical context and the climate impacts the Los Angeles region is facing. It then describes the history of how LARC formed and its current organizational structure, including membership base, governance, and funding, which has been a main challenge for the collaborative. Finally, the case study details the key roles that LARC plays – convening stakeholders, facilitating and translating climate science and research, and building a framework for coordinated policy development – and how these functions support local and regional adaptation efforts. While many of LARC's initiatives began with a focus on reducing emissions, this case study will focus primarily on the group's efforts to improve resilience in the region.

THE LOS ANGELES REGION

*With over 10 million residents, Los Angeles County comprises around 27 percent of California's population and is also the most populous county in the nation.*² The county encompasses 88 municipalities, approximately 140 unincorporated areas,³ and over 1,200 special districts within its boundaries.⁴ The Los Angeles region is characterized by diverse geography, ranging from its wide beaches and coastal cities and towns, to arid deserts, to snow-capped mountains. Its lowest point sits 9 feet below sea level, and its highest point is at the peak of Mt. San Antonio (also known as "Mount Baldy"), at 10,080 feet in elevation.⁵ The county also includes many preserved natural areas that serve important ecological functions and provide recreational opportunities.⁶ These landscapes fall under a variety of local, state, and federal jurisdiction as well as privately-owned areas.

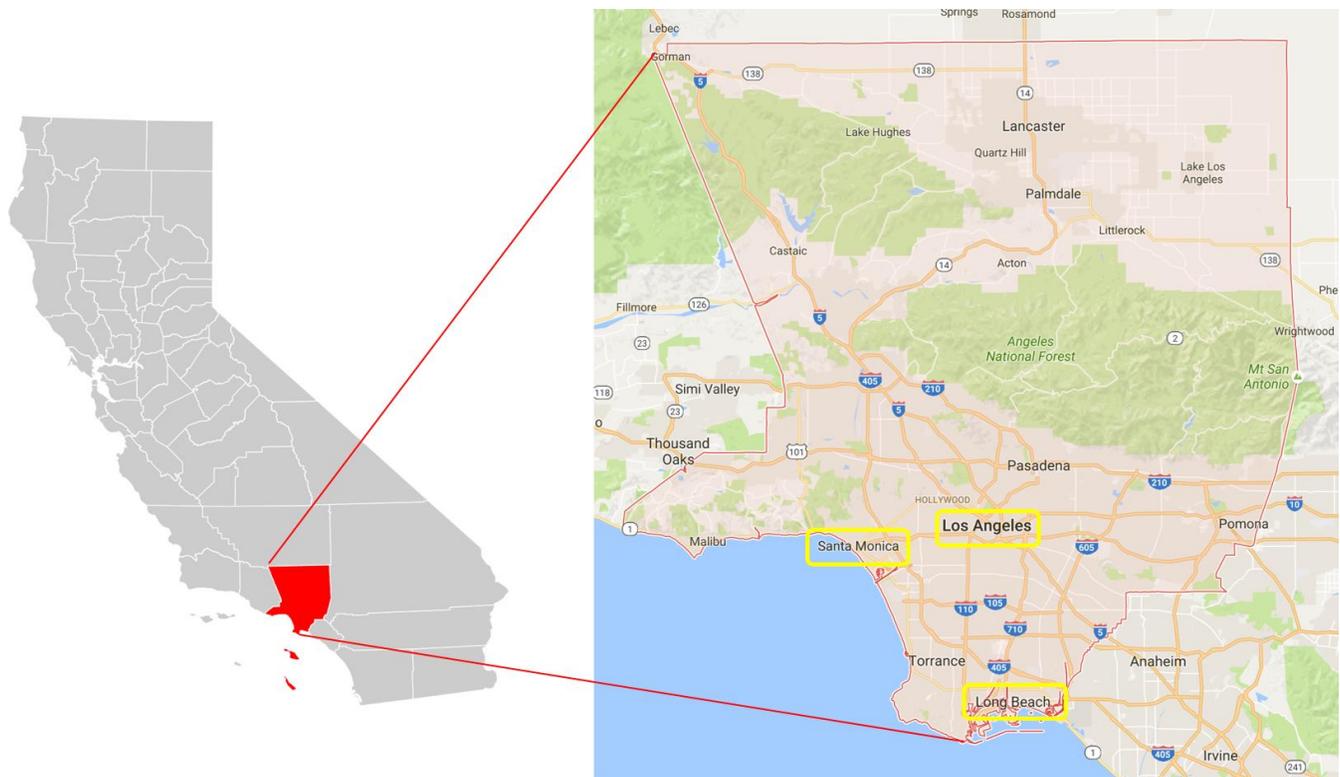


Figure 1: Map of Los Angeles County. As of August 2016, LARC has 3 municipal members (highlighted in yellow). Map data: Google.

The diversity of landscapes, land management and levels of authority, and communities in the Los Angeles County region creates challenges for adaptation planning, given the wide range of climate impacts the region is facing.

- **Temperature and extreme heat:** The Los Angeles area is projected to warm by an average of 4 to 5 degrees by mid-century⁷, which will exacerbate warming that the region already experiences due to a widespread Urban Heat Island Effect and on-shore winds that carry heat inland.⁸ Climate change will also bring about sharp increases in the number of extreme heat days, with the most heavily populated areas (coastal areas and central Los Angeles) experiencing a threefold increase in days over 95 degrees by mid-century.⁹ In addition to threatening infrastructure and natural resources, rising temperatures will cause more extreme heat-related mortality, and worsen asthma and other respiratory diseases, already a significant concern due to air quality issues in the County.¹⁰
- **Precipitation and snowfall:** Climate change is also anticipated to increase the variability of rainfall in California, which will put greater strain on already scarce water resources for the Los Angeles region.¹¹ The region’s mountains will see significant decreases in the amount of snowfall by midcentury, up to 42 percent if emissions continue to increase.¹² Temperature increases will also accelerate melting of snowpack on the ground, altering the timing of springtime runoff and impacting availability of summer water resources.¹³
- **Sea-level rise and coastal storms:** Sea levels in the Los Angeles region are expected to rise 5 to 24 inches by 2050, and 17 to 66 inches by 2100, which may exacerbate impacts from tides and storm surge.¹⁴ Sea-level rise and coastal storms may cause more significant erosion to beaches, a major driver of local tourism, and damage to private property and critical infrastructure along the Los Angeles coastline,¹⁵ including power plants, wastewater treatment plants, and the Port of Los Angeles. Additionally, sea-level rise will increase the vulnerability of coastal aquifers to saltwater intrusion,¹⁶ which will further strain local water resources in the future.

- **Wildfire risk:** Southern California experiences two different categories of wildfire: Santa Ana wildfires during the fall to winter months due to strong winds, and wildfires related to warm and dry periods during the June through September months. Santa Ana fires tend to spread faster and occur in densely populated areas more often than summer fires, meaning that they cause far more damage to infrastructure.¹⁷ Both types of wildfire are projected to increase in number and in total acreage burned, as climate change is expected to cause more intense Santa Ana wind events and significant warming in the region.¹⁸ Increasing wildfire and related risks will impact safety, air quality, public health, and water quality, and can cause landslides and greater losses of property and natural habitats.¹⁹

HISTORY AND ORGANIZATION OF LARC

The Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) was created in recognition of a need for greater coordination and consistency across the region given the diversity of actors and levels of authority. In 2008, Next 10, a philanthropic foundation based in the San Francisco Bay Area, provided funding for a facilitator to work with the City of Los Angeles’ Mayor’s Office to convene key players in the region around the concept of a climate collaborative. The facilitated meetings were held over the course of a year and brought together individuals representing the County, the Los Angeles County Metropolitan Transportation Authority (METRO, a public transportation agency for Los Angeles County), UCLA, and Green LA (a coalition of environmental and environmental justice groups in the region), as well as the City of Los Angeles’ Mayor’s Office. Through these conversations, the group considered the purposes and form for a new collaborative that could help coordinate climate action in the region.

In 2009, environmental staff from the offices of two Los Angeles County Supervisors worked to develop a charter for the collaborative, with guidance from the individuals that had convened for a year. LARC’s charter recognizes the need for cross-jurisdictional collaboration and coordination, and establishes the collaborative as a network to “share information, foster partnerships, and develop system-wide strategies to address climate change.”²⁰ The group also discussed options for institutional arrangement of the collaborative; it was agreed upon that the collaborative should not be hosted by a governmental body so as to avoid any appearance of being affiliated with that entity. The founding entities lacking funding or impetus to establish an independent nonprofit, the Institute of the Environment and Sustainability at the University of California – Los Angeles volunteered to host the collaborative.

In October 2010, LARC developed its first governance policy that more formally described the collaborative’s organizational and decision-making structure, establishing a Steering Committee and Executive Committee as decision-making bodies.²¹ LARC also hired its first Managing Director with funding that UCLA secured through a grant from a California-based nonprofit focused on land preservation. In 2014, the members revisited and simplified the collaborative’s organizational structure, adopting an updated governance policy that merged the two decision-making bodies into one Governing Board and clarified responsibilities within the collaborative.²² LARC’s organizational structure and membership are described in more detail below.

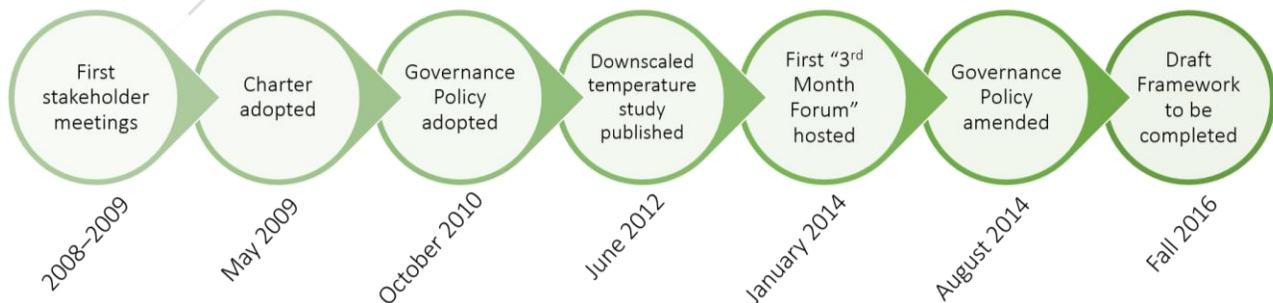


Figure 2: Timeline for formation of LARC and several key initiatives of the collaborative.

Organizational Structure and Decision-making

From the early facilitated discussions, LARC and its members perceived a need for the collaborative to be flexible with the ability to shift roles depending on the needs of the communities and the existing local and regional authorities. The collaborative is hosted and administered by UCLA,²³ which provides a “neutral” third party to facilitate coordination across political entities, and has also allowed LARC to more effectively bridge gaps between the scientific research community and local decision-makers.²⁴

LARC’s Managing Director and other staff based at UCLA oversee the initiatives and daily operation of the collaborative, and provide key first connections between stakeholders in the region.²⁵ The institutional arrangement with UCLA allows LARC to take advantage of benefits that come with university administration. For example, in addition to certain benefits of being hosted by a neutral non-governmental entity,²⁶ LARC receives typical university services and support such as account management and accounting for grants, access to the legal department, and computing services.²⁷ However, these benefits come with drawbacks, including sometimes large overhead rates for grant management.²⁸

While day-to-day management of the collaborative is provided by the staff based at UCLA, LARC’s Governing Board is the primary decision-making body and provides strategic direction and oversight for the collaborative.²⁹ The Board holds regular meetings (usually quarterly, but scheduled as needed) and fulfills a variety of functions, such as developing LARC’s Strategic Plan, establishing additional committees as needed, soliciting funding and approving LARC’s participation in grant proposals, promoting the collaborative’s work, and hiring and overseeing work of the Managing Director.³⁰ The Board is made of up to 7 members representing different sectors, as shown in the chart at right.³¹



Figure 3: Sectors represented by seats on LARC’s Governing Board, with the six specific member organizations identified based on the makeup of the Board as of August 2016.

Membership

Any legal entity that represents “a regional interest in climate mitigation and adaptation action” is eligible to apply for membership in LARC.³² The collaborative aims to engage as much as possible the broad range of entities working on climate change or related initiatives within the Los Angeles region, including:

- **Governmental entities, regional authorities, and planning agencies:** LARC’s membership has included 3 of the region’s 88 cities and the County of Los Angeles, as well as several other members representing a range of regional agencies and governmental authorities like regional planning organizations, air and water districts, utilities, the Port of Long Beach, and others.³³ Involving more governmental and agency members continues to be a goal for the collaborative as it seeks to engage and build capacity of those leading actors that hold the authority needed to act on climate change.
- **Academia:** In addition to UCLA’s Institute of the Environment and Sustainability, which houses the collaborative and is a member, several other universities have joined LARC’s membership.³⁴ By including university members, LARC is able to help facilitate more direct communication between researchers and the public decision-makers and government entities that are members of the collaborative.
- **Nonprofits:** LARC’s current membership also includes a number of nonprofit organizations that work in the Los Angeles region on issues relating to natural resources, watershed health, clean energy, and water resources,

among other environmental issues.³⁵

- **Private sector:** Businesses engaged in initiatives related to climate change may also join LARC, although the collaborative has been slower to engage organizations in the private sector.³⁶

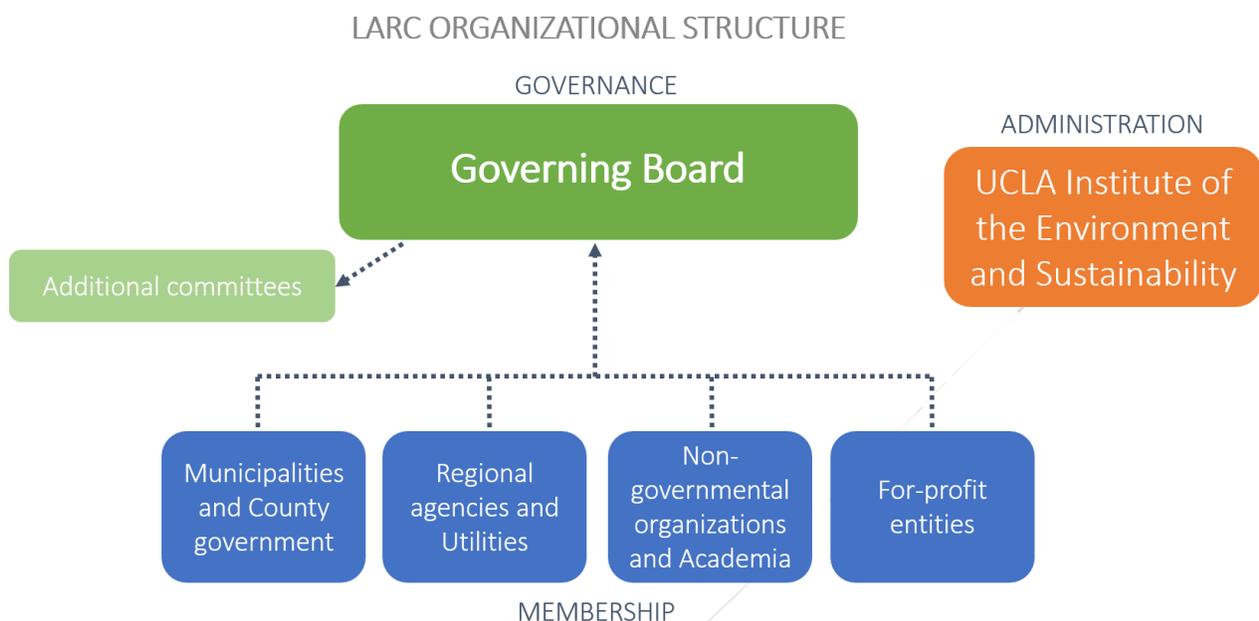


Figure 4: LARC Governance Structure. The Governing Board serves as the primary decision-making authority while the Managing Director and other staff provide support to the Board and LARC membership, which includes a variety of stakeholders.

Upon joining the collaborative, members sign and adopt LARC’s charter, which indicates their endorsement of LARC’s purpose and the collaborative’s objectives.³⁷ LARC’s membership meets every other month to network, share information about projects and initiatives within the region, and receive updates from the Managing Director on the collaborative’s programs and activities.³⁸

Funding Sources

As a university-administered collaborative, LARC can take in funding from some sources where universities are eligible grantees, but is ineligible for many other sources of funding that require a public entity to be the official grantee.³⁹ It can also receive gifts from any entity, including private philanthropic donations. LARC’s main funding and support includes:

- **Membership dues:** LARC receives some annual funding in the form of membership dues, which are used primarily for convening efforts and outreach.⁴⁰ As outlined in the Governance Policy, members commit to providing a certain level of annual dues in the form of financial or in-kind support, or a mix of both depending on the organization type and size. With the exception of certain larger entities (like regional government agencies, utilities, and larger businesses)⁴¹, most members fall within the “general membership” category and are responsible for contributing \$1,000 annually in direct monetary or in-kind support.⁴² Non-governmental organizations and members from academia can meet this requirement partially or entirely by substituting in-kind services, and small businesses (those with annual revenue less than \$250,000) may partially substitute in-kind support as well.⁴³ Staffing the collaborative through membership dues can be challenging, as some member entities have not been able to contribute direct financial support as laid out under the dues structure.

- *In-kind services:* In-kind services have been an important source of support for the group’s initiatives.⁴⁴ For example, many members and outside stakeholders have donated in-kind support to help develop components of the Framework (discussed below) and facilitate outside engagement and outreach.⁴⁵
- *Grants and other support:* LARC has also received one-time funding through other partners to work on specific issues and projects. For example, the Framework (discussed in more detail below) was funded through the California Strategic Growth Council’s Sustainable Communities Planning Grant and Incentives Program by a \$1 million grant awarded to METRO (as the eligible grantee) but written in partnership with LARC.⁴⁶ LARC also partnered with the City of Los Angeles, using Energy Efficiency and Conservation Block Grant funding from the U.S. Department of Energy, to develop the downscaled climate model that is being used to assess localized climate impacts and tailor strategies in the Framework.⁴⁷ LARC has also sought philanthropic support for regional adaptation planning and implementing projects,⁴⁸ but these efforts so far have been unsuccessful.

LARC staff continue to seek new funding opportunities for the collaborative and its membership.⁴⁹ Increasingly, local authorities are looking to partner on grant opportunities to develop more competitive proposals that have greater regional benefits, and LARC is able to foster these partnerships. By continuing to build and leverage these partnerships across jurisdictions and authorities, LARC hopes to attract higher levels of funding for adaptation in the region.

KEY ROLES AND INITIATIVES

To achieve LARC’s mission of ensuring “a sustainable Los Angeles prepared for the impacts of climate change,”⁵⁰ LARC needs to facilitate action at the local level, where most of the land use and decision-making authority resides. In support of these primary actors, LARC’s key roles include convening and engaging stakeholders to encourage coordination and sharing of information and best practices; supporting science, research and analysis; and facilitating coordinated policy-making through development of a regional framework and tools for climate action.

Coordination, Convening & Stakeholder Engagement

LARC creates a network and forum for decision-makers, practitioners, and other stakeholders in the region to discuss challenges and solutions for regional adaptation. Providing these opportunities for communication across jurisdictions and sectors allows decision-makers to maximize use of limited resources and to coordinate climate action efforts, thereby increasing the benefits for the entire region.

- *Bimonthly member meetings:* LARC hosts in-person meetings for LARC members every other month on a set schedule. These meetings offer regular opportunities for members to discuss the issues they are working on related to climate change and sustainability, so that they can learn from each other’s successes and challenges and identify opportunities to collaborate and share resources.
- *Committees for development of a regional framework plan:* LARC organized committees to lead development of different portions of a regional framework for climate action, known as “A Greater LA: The Framework for Regional Climate Action and Sustainability,” which is discussed in more detail below. The Regional Climate Action Planning Committee included LARC members, consultants, and other regional stakeholders such as EPA and the Southern California Association of Governments (SCAG).⁵¹ This Committee served as the primary body responsible for implementing the regional framework plan, while sector-specific working groups also informed the different sector components of the Framework (energy, transportation, coastal resources, public health, and water).
- *3rd Month Forum:* In January 2014, LARC began to host a quarterly public event series, called the “3rd Month Forum,” for the purpose of exploring climate action efforts in the region.⁵² LARC hosts these forums in partnership with other agencies or organizations depending on the subject matter of the forum. Each of these quarterly events highlights different issues and local actions on climate adaptation, with the support of different

public and non-governmental partners and input from stakeholders within and outside LARC's membership. The first 3rd Month Forum, held in January 2014, focused on coastal impacts and sea-level rise in the LA region.⁵³ Although the forums have been suspended recently due to staffing constraints, LARC anticipates resuming these events in the future.

- *Workshops and other events:* LARC's members and outside stakeholders often host public workshops, training events, conferences, and other meetings and events on subjects related to climate change adaptation and sustainability.⁵⁴ For example, LARC helped to host an event focused on coastal impacts planning, and has publicized a variety of other events ranging from climate change and public health impacts to environmental justice, among others.⁵⁵

These peer learning opportunities maximize the ability of LARC's members to share best practices, participate in trainings, and coordinate the development of climate policies across the region.

Facilitating Research & Translation of Science

Like many regions around the country, decision-makers in the Los Angeles region were challenged by lack of downscaled climate science, data, and information that could help them understand how to plan for climate change at the local or neighborhood scale. LARC has helped to address these problems by bridging the gap between scientists and local and regional decision-makers so that regional studies could be better funded and informed by local needs.

- *Downscaled temperature and precipitation modeling:* In partnership with the City of Los Angeles and with support from the US Department of Energy, LARC commissioned downscaled climate modeling for the Los Angeles region. As part of a project entitled "Climate Change in the Los Angeles Region,"⁵⁶ a team of atmospheric scientists at UCLA conducted studies to develop detailed 2-km, neighborhood-level projections for temperature and precipitation (rain and snow) at mid-century and end of the century.⁵⁷ The supercomputer climate model used for the studies was funded using the city's Energy Efficiency Community Block Grant (EECBG) program⁵⁸ in partnership with LARC.⁵⁹ These studies will help enable local governments to craft adaptation policies and programs that appropriately address impacts at the neighborhood and community scale.
- *Sea-level rise vulnerability study for Los Angeles:* USC Sea Grant, in partnership with the City of Los Angeles, LARC, and others,⁶⁰ developed a sea-level rise vulnerability study for the City of Los Angeles, which assessed physical, social and economic impacts of sea-level rise on the region's resources and population.⁶¹ One of the goals of this study was to provide a model for adaptation planning for the region, so LARC has also played an important role in transferring knowledge and lessons learned from the pilot study for the City of LA to the greater region.⁶²
- *Regional coastal change modeling and working group:* Building on the study and modeling completed for the City, LARC and other partners facilitated an advanced coastal modeling project for the greater Los Angeles region. The technical portions of the project, which were completed in late 2016, included modeling coastal erosion and shoreline change, including the effects of sea-level rise on these processes, and the development of new tools to improve coastal planning.⁶³ In support of this project, LARC collaborated with USC Sea Grant to manage a Coastal Impact Working Group, which generated broad participation from the region's coastal communities including those not involved as members of the collaborative.⁶⁴ The working group coordinated among coastal jurisdictions, along with other private, nonprofit, and federal partners,⁶⁵ to apply for state grants to support this project. With the City of Santa Monica as the grant lead, the group received funding from the Ocean Protection Council and the State Coastal Conservancy to support the downscaled shoreline change modeling for the region as well as capacity building and training for local government professionals.⁶⁶ USC Sea Grant has held workshops and webinars to discuss coastal planning issues with municipal leaders, and will also host a workshop to explain the models and provide assistance on how to incorporate the results into local vulnerability assessments.⁶⁷

- *Los Angeles County greenhouse gas emissions inventory*: LARC partnered with the County of Los Angeles to produce 2010 greenhouse gas emissions inventories for every city in the county and unincorporated County areas.⁶⁸ The data are intended to help communities with climate action planning and other initiatives to reduce emissions.
- *Building energy use data*: Nearly 40 percent of greenhouse gas emissions in Los Angeles County are produced by the use of energy in buildings. LARC supported and provided input for the LA Energy Atlas, a project directed by the California Center for Sustainable Communities at UCLA that provides data on energy use by building type and size throughout Los Angeles County.⁶⁹ This tool, the largest set of disaggregated energy data in the nation, can be used to inform energy planning and research and support efforts to reduce emissions.

LARC incorporated these and other studies (including water management studies provided by the California Center for Sustainable Communities) in the development of the regional framework for climate action, discussed in the next section. The Framework and these studies will help local policymakers more effectively plan for and make investments that will reduce emissions and increase resilience.

Regional Policy Development: A Greater LA Framework

One of LARC’s central initiatives has been a multi-year project to develop a regional framework for climate adaptation and mitigation policy in the Los Angeles region. LARC worked to develop “A Greater LA: the Framework for Regional Climate Action and Sustainability” over a period of three years with state funding secured through a partnership with METRO.⁷⁰ The Framework is intended to build on and help target the extensive work already ongoing at the local level across the region, by clarifying legal requirements and identifying best practices that will help achieve an effective regional response. The Framework includes:

- *Climate science guidebook*: A guide on climate science is included and intended for use by local government practitioners. It includes information from localized climate and sustainability research to help local decision-makers understand how climate change will impact their jurisdictions at a community level.⁷¹
- *Explanation of legal and policy context*: The Framework summarizes requirements at the federal, state, and local levels to clearly identify what different local practitioners are required to do or responsible for in the context of climate change.⁷² This analysis will help local governments identify who should be involved to implement recommendations and best practices laid out in the Framework.
- *County-wide emissions inventory and recommendations*: The Framework includes analysis of where greenhouse gas emissions in the region are coming from, and will prioritize actions to reduce emissions. Strategies for reducing emissions were analyzed based on overall effectiveness, cost effectiveness, and benefits for local jurisdictions.

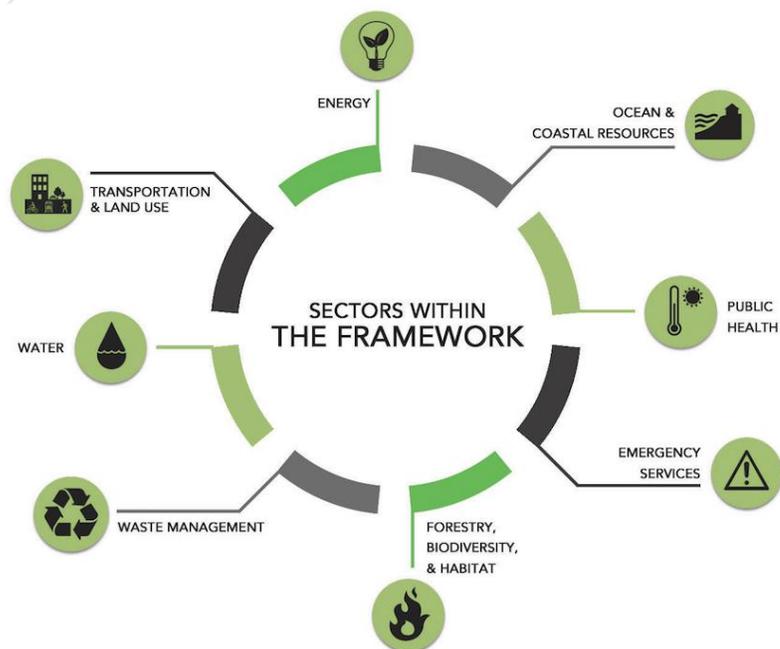


Figure 5: Infographic of sectors that will be covered within the Framework. Source: LARC.

- *Recommended priorities, actions, and best practices:* For individual sectors (e.g. energy, water, transportation), the Framework identifies short- and long-term priorities for maximizing resilience at a regional level, and specific actions to achieve those priorities.⁷³ In addition, these recommendations are tied to particular best practices and policies to facilitate their implementation at the local level. Best practices are also assessed for potential barriers and overall appropriateness and effectiveness for different jurisdictions.⁷⁴

The Framework is designed to reduce informational barriers to climate action, helping local government practitioners understand the existing legal and policy context and identify more effective ways to reduce emissions and adapt to climate impacts.⁷⁵ The Framework can also help inform more effective and coordinated development of local and regional plans, like Sustainable Communities Strategies,⁷⁶ local General Plans,⁷⁷ and Climate Action Plans.⁷⁸

The Framework was primarily developed under the guidance of the LARC staff and the committees and working groups set up to inform different sectors and components of the Framework. But to ensure that the Framework has value for LARC's members and the region as a whole, LARC solicited participation and feedback from its members, state agencies, and the greater public.⁷⁹ Additionally, LARC conducted outreach to disadvantaged communities to solicit their input and ensure that the Framework would take into account the values and goals of those communities.⁸⁰ Many of the region's smaller communities and economically disadvantaged communities⁸¹ do not have the financial resources or staff capacity to undertake adaptation planning; by creating a Framework with tools and support to encourage these communities to take action, LARC can help remove resource-related barriers to increasing community resilience.⁸²

LARC plans to provide the Framework through a public online platform, which will also enable community engagement and feedback, and tracking of Framework recommendations that are adopted locally.⁸³ The Framework's recommendations will not be binding on municipalities, but by providing information about climate change impacts, model policies, best practices, and tools to facilitate their use, LARC hopes to make it easier for jurisdictions within the region to align policies and coordinate climate change initiatives.

CONCLUSION

LARC took form over the course of a year of facilitated discussions between several leaders from public, nonprofit, and academic sectors in the Los Angeles region. A need was recognized for greater coordination and consistency on climate action across the region, given the numerous municipalities and special districts within Los Angeles County. By hosting the collaborative at a university, LARC is able to facilitate greater engagement between these entities while avoiding the perception of any one political entity having ownership over the collaborative. Though most of the region's jurisdictions have not joined as formal members of the collaborative, LARC has managed to generate participation from other local communities through working groups on particular topics (such as the Coastal Impacts Working Group), and the collaborative aims to provide a valuable resource for jurisdictions widely through development of the regional Framework. In particular, communities with limited capacity to plan for and respond to climate change will benefit from the clarity and information provided by the Framework.

LARC also facilitates an important feedback loop between academia and local government, helping to get relevant and actionable science into the hands of local and regional policymakers through its close partnerships with research universities in the area. At the same time, LARC's direct involvement with representatives from local and regional authorities ensures that the collaborative can provide the feedback that researchers need in order to target their studies to be more informative and useful. The group hopes to continue to bring in new members and partners from local government and other public agencies, and from the business community, which has been less represented in the collaborative's initiatives. By engaging regularly with leaders from the public, nonprofit, and private sectors, LARC can continue to identify opportunities to support and help coordinate regional adaptation and mitigation efforts, and to evolve as a collaborative based on needs within the region.

ENDNOTES

*This report was written by Annie Bennett, with review and editing support from Jessica Grannis. Annie Bennett is an Institute Associate for the Georgetown Climate Center, and Jessica Grannis is the Adaptation Program Manager for the Georgetown Climate Center.

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¹ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, *The Framework*, <http://www.laregionalcollaborative.com/the-framework/>.

² COUNTY OF LOS ANGELES, *Estimated Population of the 88 Cities in the County of Los Angeles*, available at http://ceo.lacounty.gov/forms/Population%20Pg_Color.pdf;

³ COUNTY OF LOS ANGELES, *Cities and Communities*, <https://www.lacounty.gov/government/geography-statistics/cities-and-communities>.

⁴ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, *A Greater L.A.: The Framework for Regional Climate Action and Sustainability*, 3, available at <http://file.lacounty.gov/bos/supdocs/66311.pdf>.

⁵ COUNTY OF LOS ANGELES, *Statistics*, <https://www.lacounty.gov/government/geography-statistics/statistics>.

⁶ For example, the Ballona Wetlands Ecological Reserve, a nearly 600-acre area of open space including some salt marsh and drier upland areas, provides habitat for migratory birds, fish, and other species, and helps filter pollutants and recharge groundwater. See FRIENDS OF BALLONA WETLANDS, *Why Wetlands Matter*, <http://www.ballonafriends.org/why.html>. The Santa Monica Mountains National Recreation Area protects one of the largest examples of Mediterranean-type ecosystems in the world. See NATIONAL PARK SERVICE, *Santa Monica Mountains National Recreation Area, Learn About the Park*, <https://www.nps.gov/samo/learn/index.htm>. Whittier Narrows Recreation Area is a park operated by Los Angeles County, nearly 1,500 acres large with many recreational amenities including the Bosque del Rio Hondo trail system that offers access to natural streambeds of the Rio Hondo. See LOS ANGELES COUNTY DEPARTMENT OF PARKS AND RECREATION, *Whittier Narrows Recreation Area*, [http://parks.lacounty.gov/wps/portal/dpr/Parks/Whittier Narrows Recreation Area](http://parks.lacounty.gov/wps/portal/dpr/Parks/Whittier+Narrows+Recreation+Area); LAMOUNTAINS.COM, *Bosque del Rio Hondo*, <http://www.lamountains.com/parks.asp?parkid=3>.

⁷ See UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Department of Atmospheric and Oceanic Sciences, *Our Research – The Climate Change in the Los Angeles Region Project*, http://research.atmos.ucla.edu/csrl/LA_project_summary.html.

⁸ Unlike traditional “island” Urban Heat Islands that are concentrated over urban areas with well-defined boundaries, the Los Angeles Basin and other large urban archipelagos and coastal regions have contiguous urban land uses with no well-defined boundaries, and the heat island resulting from local land-use properties is exacerbated by effects of on-shore warming and upwind urban warming. A study characterizing California’s urban heat islands found that average temperature differences between the urban region and surrounding areas may be less than 1 degree Celsius for smaller urban areas, while urban archipelagos may experience a temperature difference up to 5 degrees Celsius. CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY and ALTOSTRATUS INC., “Creating and Mapping an Urban Heat Island Index for California,” at 3, April 24, 2015. Available at <http://www.calepa.ca.gov/UrbanHeat/Report/Report.pdf>.

⁹ See UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Department of Atmospheric and Oceanic Sciences, *Our Research – The Climate Change in the Los Angeles Region Project*, http://research.atmos.ucla.edu/csrl/LA_project_summary.html. See also KCET, *Climate Change L.A., Temperature Study*, February 12, 2014, <https://www.kcet.org/climate-change-la/temperature-study>.

¹⁰ LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH, Climate and Health Series – Report 1: “Your Health and Climate Change in Los Angeles County,” August 2014, available at <http://publichealth.lacounty.gov/docs/climatechange1.pdf>. See also LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Temperature Increase, <http://www.laregionalcollaborative.com/temperature-increase>.

¹¹ See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Water Resources, <http://www.laregionalcollaborative.com/water-resources>.

¹² KCET, Climate Change L.A., Snowfall-Climate Study, February 13, 2014, <https://www.kcet.org/climate-change-la/snowfall-climate-study>.

¹³ KCET, Climate Change L.A., Snowfall-Climate Study, February 13, 2014, <https://www.kcet.org/climate-change-la/snowfall-climate-study>.

¹⁴ KCET, Climate Change L.A., Sea Level Rise Climate Study, <https://www.kcet.org/climate-change-la/sea-level-rise-climate-study>.

¹⁵ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Coastal Impact, <http://www.laregionalcollaborative.com/coastal-impact>.

¹⁶ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Coastal Impact, <http://www.laregionalcollaborative.com/coastal-impact>.

¹⁷ CLIMATE RESOLVE, KCET, Climate Change L.A., Wildfire, September 8, 2015, <https://www.kcet.org/climate-change-la/wildfire>.

¹⁸ By mid-century, the overall area burned is projected to increase by 64 percent for Santa Ana-related fires, and by 77 percent for regular summer (non-Santa Ana) fires. Yufang Jin *et al.* “Identification of two distinct fire regimes in Southern California: implications for economic impact and future change.” *Environ. Res. Lett.* 10 (2015) 094005. Any precipitation increases in winter months may also exacerbate wildfire risk during the following fall months, as increased winter rain can stimulate more chaparral growth that fuels wildfire, and may result in flash floods along the wildland urban interface. LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Wildfire Risk, <http://www.laregionalcollaborative.com/wildfire-risk>.

¹⁹ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Wildfire Risk, <http://www.laregionalcollaborative.com/wildfire-risk>.

²⁰ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, LARC Charter, Purpose Statement.

²¹ Interview with Krista Kline, August 1, 2014 (hereafter “Kline Interview”).

²² Kline Interview; LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Governance Policy, 1, (approved August 5, 2014), available at <http://static1.squarespace.com/static/525dcdce4b03a9509e033ab/t/53ea7c15e4b0b08909262b50/1407876286432/LARC+Governance+Policy+08.05.14.pdf> (hereafter “LARC Governance Policy”).

²³ The University of California system as a whole acts as LARC’s legal and fiscal sponsor and fiduciary, while UCLA IoES houses staff members for LARC and acts as the liaison between LARC and the Regents of the University of California. LARC Governance Policy at 1-2.

²⁴ Kline Interview.

²⁵ Although the Managing Director (MD) is an employee of UCLA IoES and is hired by the University, the Governing Board conducts interviews and recommends a candidate who is then hired by IoES. The MD represents LARC at public events and is responsible for seeing that LARC achieves its mission and financial objectives. The MD reports to the Board on the status of LARC’s programs and budgets and provides administrative support to the Board before and during Board meetings. Other duties include running general membership meetings; working with the Board to develop LARC’s long-range strategic plan; developing and managing programs and initiatives; managing finances and budgets; fundraising; managing other LARC staff; running public LARC-sponsored events; and communicating about LARC, its activities, and relevant science to the public, local and state officials, and regional stakeholders. LARC Governance Policy at 8-9.

²⁶ By establishing LARC as an entity of the University of California, hosted at and administered by UCLA's Institute of the Environment and Sustainability (IoES), LARC has been able to attract participation (particularly from cities and other regional authorities) that it might not otherwise have if it had been affiliated with a particular governmental entity.

²⁷ See LARC Governance Policy at 11.

²⁸ LARC Governance Policy at 10. The exact overhead rate that is charged depends upon the type of grant or other funding being administered. Federal funding is charged higher overhead rates than Foundation grants, state and local funding, and gift funding. Membership dues go into the LARC General Budget, which is considered a gift account by the University of California and is charged the standard 6% overhead rate for gift funds. However, negotiations may change standard rates; a zero percent overhead rate was negotiated for administering the Strategic Growth Council Sustainable Communities Planning Grant that was awarded to METRO and LARC to develop a regional Framework for climate action (discussed in the Key Roles section). Additionally, as LARC is not its own independent entity, the UC Regents enter into contracts on its behalf, so any rules applying to contracts with UCLA apply similarly to LARC.

²⁹ LARC Governance Policy at 5. LARC's governance structure has changed slightly over time. Under the first governance policy from 2010, the decision-making body was a Steering Committee, which was created to govern and oversee the collaborative and ensure that its mission and goals, as specified in the charter, were carried out. From the Steering Committee, there was initially also a smaller Executive Committee. Over several years the LARC members found that having two general decision-making committees complicated the governance of the collaborative. Kline Interview.

³⁰ See generally LARC Governance Policy. The Board is also responsible for electing officers for the collaborative. At a minimum, LARC has a Chair, Vice Chair, and Immediate Past Chair, and the Board may select additional officers as needed. LARC Governance Policy at 7.

³¹ LARC Governance Policy at 5, 6. Board members are selected, by a majority vote of the full LARC membership, for two-year appointments with the option of re-election.

³² LARC Governance Policy at 2.

³³ As of August 2016, LARC's governmental and public agency members included the cities of Long Beach, Los Angeles, and Santa Monica; the County of Los Angeles; the Metropolitan Transportation Authority (METRO, the county's public transportation agency); the South Bay Cities Council of Governments (which represents 16 cities and the County of Los Angeles, providing transportation and other planning); the South Coast Air Quality Management District; the Metropolitan Water District of Southern California; the LA Department of Water and Power; the Port of Long Beach; and the San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy (one of ten conservancies within the state-level California Natural Resources Agency). LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Members, <http://www.laregionalcollaborative.com/members/>. The collaborative at times has involved other public agency members, but not all have maintained consistent involvement with the collaborative.

³⁴ IoES coordinates interdisciplinary environment and sustainability initiatives across the various schools at UCLA, including related undergraduate and graduate programs and research programs that involve UCLA's separate research centers. See UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Institute of the Environment and Sustainability, About Us, <http://www.environment.ucla.edu/about/>. UCLA is also involved through membership of the Lewis Center at the university's School of Public Affairs. As of August 2016, other university members include Antioch University Los Angeles, Loyola Marymount University, and the University of Southern California (USC) through its Sea Grant program. See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Members, <http://www.laregionalcollaborative.com/members/>.

³⁵ Current nonprofit members are also listed on LARC's membership page, available at <http://www.laregionalcollaborative.com/members/>.

³⁶ As of August 2016, LARC has one member from the private sector, ICF International. See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Members, <http://www.laregionalcollaborative.com/members/>.

³⁷ GREEN CITIES CALIFORNIA, Climate Change Adaptation Breakthrough Convening: Identifying Roles for Local Government within Regional Adaptation Collaboratives – Pre-Meeting Background Briefing, (February 26-27, 2014). The final report from the convening is available at: <http://greencitiescalifornia.org/assets/GCC-Climate-Adaptation-Convening-Report-04-05-2014-FINAL.pdf>

³⁸ LARC Governance Policy at 4.

³⁹ For example, METRO (a public transportation agency) was the primary grantee for the Sustainable Communities Planning Grant from the California Strategic Growth Council, which is funding LARC's development of the Framework. That grant program makes only local and county jurisdictions, other public agencies (like MPOs and COGs), and combinations thereof were eligible to apply for funding directly. See State of California Strategic Growth Council, 2011 Solicitation: Sustainable Communities Planning Grant and Incentive Program, Request for Proposals with Guidelines (November 2011), available at: <https://www.sgc.ca.gov/docs/pgjp-guidelines-2011.pdf>.

⁴⁰ See "A Greater LA: The Framework for Regional Climate Action and Sustainability," Grant Application to the California Strategic Growth Council, at 21 (hereafter "SGC Grant Application").

⁴¹ This category includes large regional government agencies, utilities, and businesses with revenue over \$1 million annually; these entities are responsible for contributing a minimum of \$10,000 annually in direct monetary support. The large regional governmental agencies and utilities that would fall within this dues category are specified in the Governance Policy. See LARC Governance Policy at 3. Current members as of August 2016 that fall within this category include METRO the Southern California Air Quality Management District, the Metropolitan Water District, the Port of Long Beach, the Los Angeles Department of Water and Power.

⁴² LARC Governance Policy at 3-4.

⁴³ Small businesses may substitute half of their dues as in-kind support; i.e. they must still contribute a minimum of \$500 in direct monetary support annually, LARC Governance Policy at 3-4.

⁴⁴ Membership dues account for approximately \$20,000 per year plus in-kind services from various members. See SGC Grant Application at 21. Eligible in-kind support includes full time equivalent staff time, approved projects, technical assistance, research, data, facility use, and other resources. LARC Governance Policy at 3-4.

⁴⁵ SGC Grant Application at 21.

⁴⁶ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, The Framework, <http://www.laregionalcollaborative.com/the-framework/>; see also STATE OF CALIFORNIA, STRATEGIC GROWTH COUNCIL, Sustainable Communities Planning Grants and Incentives Program: Round 2 Awarded Applications, 3, available at http://www.sgc.ca.gov/docs/SCPGIP_Round-2_Overview.pdf.

⁴⁷ LARC is also using the EECBG funding to develop the baseline inventory of greenhouse gas emissions for the county.

⁴⁸ Kline Interview.

⁴⁹ For example, grant opportunities for which members may be eligible are often highlighted on LARC's website and discussed in membership meetings. See L LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Grants & Funding Opportunities, <http://www.laregionalcollaborative.com/updates>.

⁵⁰ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, About Us, <http://www.laregionalcollaborative.com/about/>.

⁵¹ The Southern California Association of Governments, or SCAG, is the metropolitan planning organization (MPO) for Los Angeles County and five other counties in Southern California, making it the largest MPO in the nation. See SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS, <http://www.scag.ca.gov/Pages/default.aspx>.

⁵² LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, LARC 3rd Month Forum, <http://www.laregionalcollaborative.com/3rd-month-forum/>).

⁵³ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, LARC 3rd Month Forum: Regional Coastal Impacts and Opportunities, <http://www.laregionalcollaborative.com/3rdmonthforum1>. This day-long Forum included panels and discussions on findings from a sea-level rise vulnerability study for the City of Los Angeles, a discussion of regional coastal impacts, opportunities for collaboration, and the California Coastal Commission's draft sea-level rise guidance document. Panelists at this Forum included staff from the cities of Los Angeles and Santa Monica and county of Los Angeles; scientists from Scripps Institute of Oceanography, the U.S. Geological Survey, and ESA PWA (an environmental science and planning firm); professors and practitioners from USC Price School of Public Policy and UCLA School of Law; and the Climate Programs Director from ICLEI. The coastal impacts forum was facilitated with the help of the LARC Coastal Impact Working

Group, USC Sea Grant, and the City of Santa Monica. See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, LARC 3rd Month Forum Agenda: Regional Coastal Impacts and Local Opportunities (January 7, 2014), available at:

http://static1.squarespace.com/static/525dcddce4b03a9509e033ab/t/52dec080e4b0a28390ecb6b0/1390329984209/Forum_1_Agenda_and_Bios.pdf.

⁵⁴ LARC partners on some of these events, but it also highlights these opportunities during membership meetings, and through the Events page on the LARC website. See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Events, <http://www.laregionalcollaborative.com/events/>.

⁵⁵ The LA County Department of Beaches and Harbors, USC Sea Grant and the Regional AdaptLA Planning Team, with support from LARC, hosted a kick-off reception for Regional AdaptLA, which focused on coastal impacts planning and gave attendees an opportunity to discuss planning needs; learn about ongoing development of sea-level rise modeling, tools, and studies; network; and share lessons learned. LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Events, Regional AdaptLA: Coastal Impacts Planning Open House and Reception Kick-Off, <https://larcioes.squarespace.com/events/2014/6/24/regional-adaptla-coastal-impacts-planning-open-house-and-reception-kick-off>. The workshop series on climate and health was hosted by the LA County Department of Public Health in partnership with UCLA's Fielding School of Public Health. See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, LA Climate and Health Workshops, <http://www.laregionalcollaborative.com/climateandhealth/>. Other highlighted events include an Environmental Justice Workshop (hosted by the Southern California Association of Governments), a UCLA lecture series on urban planning, a day-long forum for local governments on understanding community choice energy, among others.

⁵⁶ UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Department of Atmospheric & Oceanic Sciences, The Climate Change in the Los Angeles Region Project, http://research.atmos.ucla.edu/csrl//LA_project_summary.html.

⁵⁷ Researchers at UCLA are also producing downscaled projections for the Sierra Nevada region, and for the state, to look at temperature, precipitation, snowfall and snowmelt, and other variables that can affect water resources in California. See UNIVERSITY OF CALIFORNIA AT LOS ANGELES, Department of Atmospheric & Oceanic Sciences, Research Overview, <http://research.atmos.ucla.edu/csrl//res.html>.

⁵⁸ The Los Angeles EECBG program is funded by the US DOE and administered by the City of Los Angeles. In addition to funding the supercomputer model, the program was used to reduce energy consumption in public, commercial, and multi-family affordable housing buildings.

⁵⁹ See U.S. DEPARTMENT OF ENERGY, "The City of Los Angeles Has Its Spotlight on Energy Efficiency," July 30, 2012, <http://energy.gov/articles/city-los-angeles-has-its-spotlight-energy-efficiency>.

⁶⁰ Other partners for the sea-level rise vulnerability study include Susanne Moser Research & Consulting, ICLEI- Local Governments for Sustainability, and TerraCosta Consulting Group.

⁶¹ UNIVERSITY OF SOUTHERN CALIFORNIA, USC SEA GRANT, Sea level rise vulnerability study for the city of Los Angeles, <http://dornsife.usc.edu/uscseagrant/la-slr/>.

⁶² LA SLR Study at 6.

⁶³ UNIVERSITY OF SOUTHERN CALIFORNIA, USC SEA GRANT, Regional AdaptLA: Coastal Impacts Planning in the Los Angeles Region, <http://dornsife.usc.edu/uscseagrant/adaptla/>.

⁶⁴ The participating jurisdictions include Los Angeles County (a LARC member) and the coastal cities of Malibu, Santa Monica (LARC member), Los Angeles (LARC member), El Segundo, Hermosa Beach, Manhattan Beach, Redondo Beach, and Torrance and Long Beach (LARC member). See LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, "Los Angeles Region Receives Local Coastal Program Sea Level Rise Planning Grant" (announcement), available at: http://static1.squarespace.com/static/525dcddce4b03a9509e033ab/t/52debbade4b047cdd88b54a4/1390328749205/LAR C+LCP+Announcement_FINAL.pdf (hereafter "LCP Announcement").

⁶⁵ Participating entities include the Cities of El Segundo, Hermosa Beach, Malibu, Manhattan Beach, Redondo Beach, Santa Monica, and Torrance; the Los Angeles County Department of Beaches and Harbors; Los Angeles Department of Water and Power; South Bay Cities Council of Governments; and the Port of Long Beach. Most jurisdictions passed local resolutions to be on the grant application; Long Beach did not sign on to the grant but did participate in the working group. Other private,

nonprofit, and federal partners for the project include Heal the Bay, the Santa Monica Bay Restoration Commission, USGS, TerraCosta Consulting Group, and ESA PWA. The experts at TerraCosta and ESA PWA will be responsible for developing the shoreline change model. See UNIVERSITY OF SOUTHERN CALIFORNIA, USC SEA GRANT, Regional AdaptLA: Coastal Impacts Planning for the Los Angeles Region, <http://dornsife.usc.edu/uscseagrant/adaptla/>.

⁶⁶ See LCP Announcement. The City received approximately \$300,000 in state grants.

⁶⁷ These models will be available along with an improved coastal storm modeling system (CoSMoS) that is being developed for Southern California by the U.S. Geological Survey. USC Sea Grant also manages the outreach on the CoSMoS for Southern California's coastal communities. UNIVERSITY OF SOUTHERN CALIFORNIA, USC SEA GRANT, Regional AdaptLA: Coastal Impacts Planning in the Los Angeles Region, <http://dornsife.usc.edu/uscseagrant/adaptla/>; UNIVERSITY OF SOUTHERN CALIFORNIA, USC SEA GRANT, AdaptLA Timeline, available at: http://dornsife.usc.edu/assets/sites/291/docs/AdaptLA_Posters/Redesign_TimelinePoster_FINAL.pdf. See also U.S. GEOLOGICAL SURVEY, Pacific Coastal and Marine Science Center, Coastal Processes: CoSMoS, http://walrus.wr.usgs.gov/coastal_processes/cosmos/.

⁶⁸ LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Community GHG Inventories for Cities in LA County, <http://www.laregionalcollaborative.com/la-county-ghg-inventory>.

⁶⁹ Pincetl, S., Elizabeth, Z., Graham, R., Gustafson, H., Holdsworth, K., Murphy, S., Wolf, J., Vu, T., UNIVERSITY OF CALIFORNIA AT LOS ANGELES, CALIFORNIA CENTER FOR SUSTAINABLE COMMUNITIES, LA Energy Atlas (2015), <http://energyatlas.ucla.edu>.

⁷⁰ LARC partnered with METRO to write the grant application, and METRO, as the grantee, received the \$1 million grant in 2012 from the California Strategic Growth Council. LARC began developing the Framework in 2013 and developed the project over a 3-year grant period. See, STATE OF CALIFORNIA, STRATEGIC GROWTH COUNCIL, Sustainable Communities Planning Grants and Incentives Program: Round 2 Awarded Applications, available at: http://www.sgc.ca.gov/docs/SCPGIP_Round-2_Overview.pdf. See section on Funding and Financing for more information on this grant.

⁷¹ For example, the framework utilizes information from the localized climate studies discussed in the "Facilitating Research & Science Translation" section, and research relating to particular sectors, such as the water research and building energy use research conducted at the California Center for Sustainable Communities at UCLA.

⁷² LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, The Framework, <http://www.laregionalcollaborative.com/the-framework/>.

⁷³ Kline Interview.

⁷⁴ SGC Grant Application at 17.

⁷⁵ For example, the findings from the climate modeling studies will be used to identify, for local decision-makers, appropriate responses to localized climate impacts, such as increasing cooling shelters in areas with vulnerable populations that will see greater urban heat island effects with increasing temperatures. See SGC Grant Application at 10. To minimize the consequences of decreasing water resources, the Framework will emphasize low-impact development practices and widespread water recycling. *Id.* at 8. And to address coastal impacts and encourage planning for sea-level rise, the Framework will use AdaptLA as the model for sea-level rise planning across the county. *Id.* at 15.

⁷⁶ Metropolitan Planning Organizations (MPOs) in California are required under the 2008 Sustainable Communities Act, SB 375, to prepare a "Sustainable Communities Strategy" (SCS) as part of their Regional Transportation Plans. The SCS identifies land use and transportation strategies that would help the region meet its GHG emissions reduction targets, which are set by the California Air Resources Board. See CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, Air Resources Board, "Sustainable Communities," <http://www.arb.ca.gov/cc/sb375/sb375.htm>.

⁷⁷ A General Plan defines a local government's long-term vision for future growth. Zoning and other local laws, and capital improvements and other land use actions, must conform to the goals and policies set out in the jurisdiction's General Plan.

⁷⁸ See SGC Grant Application at 7.

⁷⁹ LARC members have opportunities to contribute through stakeholder groups and discussions at LARC membership meetings, and outside stakeholders can participate through bi-monthly public interest sessions that LARC is holding. LOS ANGELES REGIONAL COLLABORATIVE FOR CLIMATE ACTION AND SUSTAINABILITY, Fact Sheet: "A Greater Los Angeles, The Framework for Regional Climate Action and Sustainability," 2, available at: <http://www.laregionalcollaborative.com/s/Framework-Info>

[Sheet.pdf](#) (hereafter “Framework Fact Sheet”). LARC has solicited feedback from the Strategic Growth Council, which funded development of the Framework, and the Governor’s Office of Planning and Research.

⁸⁰ SGC Grant Application at 10-11.

⁸¹ More than half of the region’s 88 municipalities have populations less than 50,000, and many are economically disadvantaged. *See* SGC Grant Application at 22.

⁸² *See* SGC Grant Application at 10, 22-23. LARC plans to track the number of disadvantaged communities that participate in the Framework development process and that adopt policies recommended by the Framework, which can help measure success towards meeting the objective of promoting equity in the region, which is an objective that must be addressed in projects receiving Strategic Growth Council Sustainable Communities Planning grants. *See* SGC Grant Application at 10.

⁸³ SGC Grant Application at 18. Once the Framework is completed and published, LARC anticipates undertaking a robust engagement, education, and training effort, both with the public and with governmental users of the Framework in order to further build capacity and facilitate its use. Kline Interview; *see also* SGC Grant Application at 16-17.

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