Lessons in Regional Resilience

California’s Capital Region

The Capital Region Climate Readiness Collaborative
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.
# Table of Contents

INTRODUCTION ............................................................................................................................ 1

CALIFORNIA’S CAPITAL REGION .................................................................................................. 2

DEVELOPMENT AND ORGANIZATION OF THE CRC................................................................. 3
  Organizational Structure and Decision-Making........................................................................ 3
  Membership.............................................................................................................................. 4
  Funding..................................................................................................................................... 4

KEY ROLES AND INITIATIVES ...................................................................................................... 5
  Convening and Stakeholder Engagement ............................................................................... 6
  Communicating and Translating Research for Local Leaders..................................................... 6
  Providing a Voice for the Region ............................................................................................... 7
  Local Capacity Building........................................................................................................... 8
    Business Resiliency Initiative ................................................................................................. 8
    Technical support through CivicSpark ................................................................................... 9
    Training opportunities and workshops .................................................................................. 9

CONCLUSION ............................................................................................................................. 10

ENDNOTES .................................................................................................................................. 11
INTRODUCTION

In the fall of 2012, a diverse group of leaders from public agencies, academia, and the nonprofit sector informally convened a regional collaborative to coordinate climate change adaptation efforts and explore regional approaches to shared issues across the six-county capital region surrounding Sacramento, California.¹ The capital region is vulnerable to a range of effects from climate change, including increasing drought, extreme heat, severe flooding and wildfires. These risks threaten the region’s communities and public health, infrastructure, natural resources, and economy.

The Capital Region Climate Readiness Collaborative (CRC) took form initially through discussions involving several local and regional participants, including: Greenwise Joint Ventures (no longer an active organization); the Local Government Commission (LGC); the Sacramento Area Council of Governments (SACOG); the Sacramento Metropolitan Air Quality Management District (SMAQMD); and the UC Davis Policy Institute for Energy, Environment, and the Economy.² Since then, its membership has grown to include businesses and utilities, as well as additional local government and nonprofit members. CRC members and other stakeholders in the region meet quarterly to share best practices and information about ongoing projects and initiatives, discuss needs and challenges, and identify opportunities for collaboration and funding.³ The CRC also participates in the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA)⁴, a network of regional climate collaboratives in California that allows the regions to share lessons and interact more effectively with state government.

The CRC stands somewhat in contrast to California’s other metropolitan-based climate collaboratives in that the Capital region tends to be more politically conservative than many other metropolitan regions, and the region has a strong interest in agriculture and small businesses. While many organizations and decision-makers in the region were previously aware of and perhaps involved in climate change mitigation (reducing emissions) efforts, most were not looking to coordinate on or discuss adaptation actions and lacked a full understanding of the impacts of climate change for the region until the CRC brought these stakeholders together to collaborate.

One of the CRC’s unique aspects has been its efforts to engage meaningfully with the business community, focusing on small businesses. The collaborative has been a key advisor in developing the region’s Business Resiliency Initiative, a project of the nonprofit Valley Vision (a CRC member) that educates local small businesses about extreme weather and other climate impacts and encourages the preparation of business continuity plans. The CRC also aims to place a greater emphasis on communities and health, and would like to frame as many of their initiatives as possible around the human impacts of climate change with a particular focus on the region’s disadvantaged communities. The CRC hopes to identify opportunities to partner with community-based organizations on issues relating to community resilience.

More broadly, the collaborative furthers resilience across the region by playing several key roles:

- Convening stakeholders to enable collaboration and cross-jurisdictional coordination of policies and initiatives;
- Building local and regional capacity to adapt by helping to identify and provide tools, technical assistance, and trainings;
- Translating climate science for policymakers and local leaders; and
- Providing a voice for the region to engage with the state and federal policymakers.

This case study first describes the geographical and economic context for climate adaptation in the capital region. It then discusses the collaborative’s development and organizational structure, including decision-making mechanisms and sources of funding. Finally, the case study describes the key roles the CRC is playing to support adaptation in the region. Other regions looking to coordinate climate adaptation efforts can apply lessons from how collaboration has helped build resilience across the six-county capital region’s governments, businesses, and communities.
California’s Capital Region

California’s capital region, surrounding the metropolitan Sacramento area, encompasses six counties: El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba, which together represent an area with a unique history, economy, geography, and climate vulnerabilities. As the state’s capital, Sacramento and its surrounding area are home to many leaders from both state and local government.

Geographically, the region sits between the tidally influenced Sacramento-San Joaquin Delta and the Sierra Nevada foothills. The Delta and prime farmlands surround much of the area around Sacramento, where the American and Sacramento rivers meet. The region depends on numerous small businesses and many acres of farmland that produce $1.66 billion in direct output. The region’s economy and natural and built environments are all threatened by the impacts of climate change.

- **Increased flood risk:** Located at the confluence of the American and Sacramento rivers, Sacramento has always been vulnerable to flooding, and parts of the region are tidally influenced due to the Delta’s connection to the San Francisco Bay. Sea-level rise, changing precipitation patterns and altered timing of snowpack melt from the Sierra Nevada Mountains may therefore exacerbate flood risks in the region. Land subsidence in combination with an anticipated 65 inches of sea-level rise by 2100 is expected to result in a significant increase land area vulnerable to flooding. The communities and agricultural land in the Delta and along the Sacramento and American Rivers are protected by a levee system, but many of the levees are aging and threatened by earthquakes and flooding, among other threats, which could lead to levee failure and significant consequences for infrastructure, agriculture, and water resources.

- **Declining water resources:** Water resources coming from the Sacramento River and snowpack in the Sierra Nevada mountains are expected to become scarcer as a result of changing precipitation patterns and snowmelt timing. The Sacramento River and snowpack are a primary source of drinking water and water for irrigation and electricity generation for much of the state. Sea-level rise will also increase salinity in the Delta, with further implications for water supply and agriculture. These challenges will be exacerbated as warmer temperatures and anticipated population growth increase demand for water supply.

- **Warmer temperatures and extreme heat:** The capital region is projected to see a significant increase in the number of heat waves and an overall increase in annual extreme heat days (with an average of 85 days over 101 degrees Fahrenheit annually by 2100). These changes will increase risk of heat stroke and heat-related mortality, and exacerbate asthma and other respiratory problems. Health impacts will be especially critical for vulnerable residents, such as the elderly, infirm, children, and socially and/or linguistically isolated, as well as people who work outside. Warming temperatures and extreme heat events will also impact agriculture, potentially rendering the region unsuitable for some temperature-dependent crops currently grown there.
**Increased wildfire risk:** California has seen a significant increase in acreage burned from wildfires in recent years; within this region, forested areas in the Sierra Nevada foothills and nearby communities in particular are likely to experience greater threats from wildfire due to greater drought conditions and incidence of pests and insects that affect tree health. Wildfires decrease air quality, with public health implications that are particularly pronounced for those already vulnerable to respiratory and cardiovascular conditions. Wildfires also threaten to disrupt critical energy infrastructure such as transmission lines and natural gas pipelines, which can affect many other interrelated systems as well.

Leaders in the capital region established the CRC in order to support local governments and other public agencies, businesses, and communities as they plan and prepare for these impacts.

**DEVELOPMENT AND ORGANIZATION OF THE CRC**

The CRC was formed after a meeting of regional leaders from across California, convened by the state’s Office of Planning and Research in 2012. At the meeting, representatives from the capital region learned of existing and emerging collaboratives in the Los Angeles, San Diego, and Bay Area regions, and that a larger collaboration among these three regions was forming in order to have a stronger voice at the state level on adaptation issues. This group recognized the value of having the capital region represented in such a statewide collaboration, particularly given the unique climate-related risks and concerns in this inland region and the benefit of voicing input on statewide adaptation initiatives. Furthermore, efforts to mitigate and adapt to climate change were sporadic across the region, with only some cities planning specifically for climate change. Adaptation was viewed as a good conversation-starter to catalyze action in the region, by framing early discussions around the implications of climate change for the region’s communities, resources, and the economy, and by helping to identify how cities can adapt through long-standing structures and planning processes. With these considerations in mind, this core group of leaders began discussions to form an adaptation collaborative in the capital region.

Early development of the collaborative was facilitated by existing organizational relationships in the region, and the involvement of several agencies and entities with regional scope among the initial partners, including the region’s metropolitan planning organization and one of the region’s air districts. Early on, the convening partners reached out to regional agencies with a logical relation to climate change action, in order to identify regional needs and priorities relating to adaptation. The collaborative hosted its first official regional stakeholder meeting in September 2013.

Since the initial discussions and meetings, the CRC has evolved and formalized its structure. In May 2014, the collaborative changed its name from “Resilient Sacramento” to the “Capital Region Climate Readiness Collaborative” to better reflect its full six-county regional focus and purpose of using collaboration to build a climate-ready region. In August 2014, the CRC formally adopted an organizational document (subsequently revised in July 2015) that details objectives for the CRC, membership terms, decision-making, and financial and administrative provisions. Over the years, the CRC has continued to grow its membership; in 2015 alone, the collaborative added seven new members from private and nonprofit sectors, an increase of over 50 percent.

**Organizational Structure and Decision-Making**

The CRC is a program of the Local Government Commission (LGC) and is organized as a cooperative membership network in the six-county region. It does not hold any authority over public agencies in the region, but aims to bring value for its members and stakeholders, and provide policy and programmatic recommendations to member agencies. In structuring the collaborative, the CRC wanted to ensure ease of formation and administration, and flexibility for shifting roles to best support its members, and the collaborative opted to embed itself into an existing organization. As the CRC’s host, the LGC staffs the collaborative and provides administrative and logistical support for CRC initiatives.
While the LGC is responsible for the daily administration and fiscal management of the collaborative, many of the decisions about the CRC’s direction and initiatives are made by a Steering Committee chosen from among the collaborative’s members.\textsuperscript{32} To ensure geographic and sectoral diversity, the CRC requires that the Steering Committee include at least one organization from specified sectors indicated in the chart at right.\textsuperscript{33} To better facilitate Steering Committee proceedings, the CRC also utilizes a smaller Executive Committee made up of the five main Officers of the Steering Committee (Chair, Vice Chair, Treasurer, Secretary, and Immediate Past Chair). The Executive Committee meets monthly to develop proposals and suggestions for the full Steering Committee, which is responsible for all formal decisions regarding the CRC’s general governance, financial health, work plan, and activities.\textsuperscript{34} The CRC Steering Committee engages in consensus-driven decision-making, striving to come to a collective agreement on all decisions and actions taken on behalf of the collaborative.\textsuperscript{35}

The Steering Committee may also establish ad hoc committees to support specific programmatic objectives, pilot projects, or other initiatives. Ad hoc committees may include anyCRC members as well as non-members, and they meet as often as needed.\textsuperscript{36} Typically, these committees have been utilized primarily as funding opportunities arise, to develop regional applications for grants to fund resilience work.\textsuperscript{37}

**Membership**

The CRC brings together diverse members representing local government, regional agencies and authorities, utilities, academia, the private sector, and nonprofit organizations. Any legal entity that represents regional interests and is involved in policy and decision-making related to climate change, or that influences how the region responds to climate change, is eligible for membership.\textsuperscript{38}

Members enjoy many strategic benefits from involvement with the collaborative, starting with access to an extensive network and convening opportunities to share relevant research, best practices, and other useful information. Members have the opportunity to be involved in developing coordinated long-term resilience strategies for the region, and have greater ease in jointly pursuing funding and partnership opportunities to leverage resources.\textsuperscript{39} They are also better able to ensure representation of their unique perspectives and concerns in state planning efforts through the CRC’s involvement in ARCCA and can, though are not required to, sign on to official statements and positions of the CRC regarding state or other policy.\textsuperscript{40}

In 2016, the CRC also developed a new “Channel Partner” structure that allows participation of other entities who are unable to make the financial contributions required of members, as described below, but wish to stay involved in the collaborative. Channel Partners share in many of the benefits that members receive, though they are not considered formal members of the collaborative and cannot participate on the Steering Committee.\textsuperscript{41} The CRC hopes to communicate with a much broader network of organizations working on climate change in the region by offering this new option.\textsuperscript{42}

**Funding**

The CRC relies on its members for sustained funding to carry out the collaborative’s activities. The collaborative’s initial start-up funding came from the SMAQMD,\textsuperscript{43} and on occasion, CRC members have also contributed funding to support particular programs and initiatives with which the CRC has been involved either directly or more peripherally.\textsuperscript{44} For example, SMAQMD contributed funding to help support several CivicSpark Fellows who worked on climate change-related projects within the region during the program’s first year, and provided funding to support a climate change communications project targeting elected officials and other local leaders.\textsuperscript{45}
The CRC’s primary sustained funding comes through annual membership dues that are specified depending on member organization type and size, as outlined in the table at right. Recognizing that meeting financial requirements of membership can be challenging for some, the CRC offers an optional modified membership dues structure for nonprofit organizations; these members pay reduced (half) dues and provide in-kind services that are mutually agreed upon by the member and the CRC Steering Committee. Channel Partners also contribute in-kind services (20 hours annually) in support of CRC initiatives.

Although the CRC has a steady source of funding to support its administration and regular operations, funding continues to be a primary concern across the region, particularly the availability of funding and support for local planning and projects to build resilience. The collaborative works to identify new sources of funding and innovative ways to leverage existing sources of funding to better support planning and projects within the region.

### KEY ROLES AND INITIATIVES

**The collaborative plays several key roles to support coordinated, effective adaptation efforts in the region.** First, the CRC convenes stakeholders in the region, providing a forum for organizations to collaborate and discuss needs and strategies, and to share knowledge. Second, the collaborative aims to help local policymakers and stakeholders better understand critical vulnerabilities in the region. Third, the CRC provides a stronger, more unified voice for the region on policy issues.

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**Table 1: CRC Membership Dues Structure**

<table>
<thead>
<tr>
<th>Membership Category</th>
<th>Size</th>
<th>Annual Dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Members*</td>
<td>N/A</td>
<td>$10,000</td>
</tr>
<tr>
<td>Private Agencies and Special Districts</td>
<td>&lt; 25 employees</td>
<td>$750</td>
</tr>
<tr>
<td></td>
<td>25-74 employees</td>
<td>$1,500</td>
</tr>
<tr>
<td></td>
<td>75 – 99 employees</td>
<td>$3,000</td>
</tr>
<tr>
<td></td>
<td>≥ 100 employees</td>
<td>$6,000</td>
</tr>
<tr>
<td>Local and Regional Agencies</td>
<td>≤ 25,000 population</td>
<td>$750</td>
</tr>
<tr>
<td></td>
<td>25,001 – 74,999 population</td>
<td>$1,500</td>
</tr>
<tr>
<td></td>
<td>≥ 75,000 population</td>
<td>$3,000</td>
</tr>
<tr>
<td>Non-Profit Organizations and Universities</td>
<td>≤ 25 employees</td>
<td>$250</td>
</tr>
<tr>
<td></td>
<td>26 – 49 employees</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td>≥ 50 employees</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

*Any member organization may become a “foundational” member; these are typically the organizations with greater financial capacity to contribute to the collaborative.

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**Figure 3: CRC ORGANIZATIONAL STRUCTURE**

- **Oversight & Decision-Making**
  - Steering Committee
  - Executive Committee
- **Management & Administration**
  - Local Government Commission
- **Membership**
  - Foundational Members
  - Local & Regional Agencies
  - Private Agencies & Special Districts
  - Nonprofit Organizations & Universities
- **Channel Partners**
- **Ad hoc committees**
Convening and Stakeholder Engagement

One of the CRC’s most important functions is engaging a broad network of stakeholders and serving as a convener for the region on the topic of climate change and resilience. Until the CRC was formed, some local stakeholders were not prioritizing or considering climate change impacts within their sectors and jurisdictions. Furthermore, they lacked the connections or impetus to discuss adaptation efforts with each other, despite having regional entities that facilitated cross-jurisdictional coordination on specific issues or sectors (such as SACOG, the region’s MPO for transportation). With the formation of the CRC, local and regional stakeholders are better able to engage with each other across sectors and jurisdictional lines on issues relating to climate change impacts.

- **Targeted stakeholder engagement**: In efforts to expand its reach through stakeholder engagement, the CRC works to ensure that input to the collaborative will be diverse, representative, and responsive to the needs of communities and key sectors. For example, the collaborative and many of its members work to better engage community-based organizations focused on health, equity and diversity, focusing particularly on the region’s disadvantaged and frontline communities. The CRC also aims to engage small businesses and agriculture, sectors that are heavily represented in the region, and has worked on solutions for business resiliency with members like Valley Vision, a local nonprofit, and the Sacramento Metropolitan Chamber of Commerce.

- **Quarterly meetings**: The CRC convenes member organizations, Channel Partners, and other interested organizations through general quarterly meetings. The meetings give attendees opportunities to discuss the collaborative’s projects and initiatives, share best practices, and brainstorm strategies to coordinate and avoid duplicating efforts. Attendees often learn about resilience efforts in specific sectors at the state or regional level. For example, CRC meetings have highlighted topics related to water resources and drought, wildfire, and health. Quarterly meetings also provide an ideal setting for strategic discussions, including brainstorming ways to both attract more funding and best utilize existing sources of funding.

- **Newsletters**: The CRC also communicates relevant new developments to the region through its biweekly newsletter, *Climate Mitigation and Adaptation News*, first developed in March 2014. The newsletter highlights news and research about climate impacts relevant to the Capital region, changes to law and policy from California or other areas nationwide, climate-related resources and tools, opportunities for funding or other support, and upcoming events and workshops.

Communicating and Translating Research for Local Leaders

The CRC aims to help local leaders and policymakers in the region understand climate change impacts and vulnerabilities, by filtering relevant research and information, conducting targeted outreach to these leaders, and facilitating connections between academics and local decision-makers. By bringing attention in particular to the impacts of climate change for human life and health, and for key sectors of the region’s economy, the CRC hopes to generate discussion among policymakers and catalyze action across the region’s jurisdictions. The collaborative also benefits from its access to local universities, which offer opportunities to partner on research projects and other initiatives that support local adaptation. For example, the UC Davis Policy Institute is a founding member of the collaborative; it serves as a liaison between academic experts and the ongoing regional initiatives that can inform and help direct future research. The Institute for Water, Energy, Sustainability & Technology at CSU Sacramento is also a member of the collaborative.

The CRC has been involved in several key efforts and projects in this area.

- **Communications project**: One of the CRC’s projects involves gathering input from stakeholder groups and developing targeted communications materials to help catalyze action among elected officials and other local leaders. Using funding provided by SMAQMD, the CRC hired a marketing firm to conduct interviews about climate change
with local leaders, and to organize focus groups with stakeholders from five sectors: Agriculture, Business Development, Community Organizing, Water-related Agencies, and Health-related Agencies. Participants in the focus groups provided insights on how climate change is perceived in their sectors and communities, and ideas about how to facilitate a more active response to climate change. The outcomes from these discussions are being used to develop informational materials, including fact sheets that will more effectively communicate to leaders in the region about key climate change vulnerabilities and response strategies.

- **Water sector research**[^54]: The CRC has also facilitated a study intended to improve decision-making related to water resources, an area of particular concern in the capital region. With support from the UC Davis Policy Institute and SMAQMD, the CRC commissioned a policy analysis study that assesses the level of knowledge of climate change impacts on water resources, as well as any adaptation-related planning and other activities underway among water management agencies in the six-county capital region. The report identifies barriers to adapting to climate change within the water sector, including lack of knowledge and funding, institutional limitations, political barriers, and lack of leadership or a clear policy directive from higher levels. It recommends actions for decision-makers and others to help overcome these barriers and address informational needs of water managers. The study was intended to inform future research and the integration of climate change into water resource management, which also has important implications for agriculture, a primary user of water resources in the region.

More broadly, the CRC would also like to facilitate a more comprehensive study for the region, with downscaled projections and vulnerabilities identified to help inform adaptation across multiple sectors. To that end, the collaborative provided input to the state on developing the research plan for the state’s Fourth Climate Change Assessment. The CRC urged the state to consider the specific challenges of utilities, local governments, and other local and regional stakeholders in its research— including the need for relevant, clear, and easy-to-use downscaled data that can be used across multiple sectors. The CRC also encouraged the state to use regional adaptation organizations like the CRC to consult frequently with local and regional stakeholders to help ensure that state-funded research is addressing local challenges and needs.

**Providing a Voice for the Region**

The CRC also communicates on behalf of the region about collaborative efforts and local issues, providing a more unified voice for the region at the state and federal levels. This helps bring attention to the region’s unique circumstances and vulnerabilities and encourages consideration of local needs in development of state- and even federal-level policy.

- **State policy engagement**: The CRC seeks to inform state policy on adaptation by providing comments on state-level documents, legislation, and proceedings, and regional insights on state policy through its involvement in ARCCA. For example, the CRC submitted comments both before and after release of the draft version of the state’s most recent adaptation plan, *Safeguarding California*, recommending that the state address social resiliency and better engage with the private sector and local and regional initiatives, among other recommendations. The CRC also commented on the California Strategic Growth Council’s proposed guidelines for the Affordable Housing and Sustainable Communities Program, encouraging the Council to explicitly include adaptation measures in scoring criteria for infrastructure and planning funded through the program. Finally, representatives from the collaborative provided testimony to the Little Hoover Commission’s proceedings on climate change and governance; their testimony discussed ongoing regional adaptation efforts and recommendations for how the state could remove institutional barriers and better engage with local and regional stakeholders.

- **Federal policy engagement**: The CRC also provides a forum for commenting on federal policy. For example, through its involvement with ARCCA, the CRC was able to provide region-specific feedback to the State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, established by President Obama. This feedback factored into development of the Task Force’s recommendations on how the federal government can best support local communities and adaptation efforts. The CRC also helps to incorporate resilience into priority issues at the annual Capitol-to-Capitol advocacy trip to Washington, DC, which is led by the Sacramento Metropolitan Chamber of Commerce. The CRC worked with one of its members, Valley Vision, to develop a climate resiliency paper to deliver to representatives in Washington, DC, during the 2015 Capitol-to-Capitol trip. The paper explained the vulnerabilities
and economic context of the capital region, and requested federal funding to support business resiliency efforts in the region that would result in a replicable model nationwide.  

Members are given the opportunity to sign onto official CRC statements, positions or other documents; however, they are not required to do so. But the CRC strives to provide a unified voice on policy developments affecting its members and other local public and private entities.

Local Capacity Building

Another way that the CRC has supported local adaptation efforts – both by government and private or nonprofit actors – is through its involvement in more direct capacity-building initiatives, programs, and events.

Business Resiliency Initiative

The CRC has played a key role in supporting small business resilience, as part of the project advisory team for the Business Resiliency Initiative (BRI), a project of Valley Vision. The BRI’s goal is to increase regional economic resilience by informing the business community – particularly small businesses – of regional vulnerabilities and providing them with tools and resources to prepare for extreme weather events and other climate impacts. Small businesses are less likely to have a business resiliency or continuity plan in place and are much less likely to recover after a major disaster. As small businesses are a key part of the region’s economy, it is important for businesses to plan proactively for these events.

Figure 4: Infographic of the Business Resiliency Initiative. Source: BRI/Valley Vision

To encourage and facilitate this type of planning, the BRI project partners and advisory team developed a Business Resiliency Toolkit. The toolkit outlines steps, along with resources and examples, to help businesses assess risks and develop, test, and update a business continuity plan. The toolkit also recommends engaging with the greater community to establish roles and responsibilities in the event of a disaster, and to create networks to facilitate disaster response across the business community. Businesses have a valuable role to play alongside local government agencies, utilities, and non-profits in resiliency planning and disaster preparedness.

The CRC and several of its members have been integral in funding, developing, and publicizing the BRI so as to maximize its use by businesses and effectiveness in making the region’s economy more resilient. For example, CRC quarterly meetings
provide discussion opportunities on the BRI and how to increase public-private collaboration on community and economic resilience. Additionally, the CRC and BRI partners will be conducting workshop trainings for businesses, and referring businesses to other expert resources.

**Technical support through CivicSpark**

In addition to supporting private sector resilience, the CRC helps build capacity of local governments in the region by connecting them with technical support through the CivicSpark program. CivicSpark is a Governor’s Initiative AmeriCorps program dedicated to building capacity for local governments to address climate change and water management needs. The program, which is managed by the Local Government Commission, matches local governments and public agencies with Fellows to provide support for specific projects. The CRC helps publicize this opportunity within the region and has coordinated the project planning and application process for securing CivicSpark Fellows for the region. In its inaugural year, CRC stakeholders developed an initial list of ideas for CivicSpark projects and hosted a call to get more input on local governments’ needs and ideas for projects.

In the first two years of the CivicSpark program, local governments and regional agencies in the capital region have benefited from several projects, such as:

- **Transportation Adaptation Plan:** CivicSpark Fellows worked with SACOG to complete a high-level vulnerability assessment for the transportation sector and develop a transportation adaptation plan. Findings from this vulnerability assessment and adaptation plan have been incorporated into SACOG’s 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy, which prioritizes transportation investments in the region for state and federal funding.

- **Reducing Urban Heat Islands:** Hosted by the SMAQMD, CivicSpark Fellows created community profiles using census-data to inform the Sacramento Tree Foundation’s efforts to increase the urban tree canopy and reduce heat islands in South Sacramento. The Sacramento Tree Foundation’s project utilizes state cap and trade funding, which is allocated in part to specifically benefit disadvantaged communities. The profiles created by CivicSpark Fellows combine socio-demographic data, community information, and maps of indicators such as health, income, existing tree canopy, and air quality.

- **Home Energy Weatherization:** CivicSpark Fellows engaged with communities to expand the reach of a SMAQMD and Rebuilding Together Sacramento program that offers free home weatherization and retrofits for low-income homeowners. The Fellows conducted extensive outreach with community, health, and social groups, helping to more than triple the number of homes retrofitted each month from five in January to eighteen in June.

The CRC continues to support CivicSpark projects and to share project results and program information through meetings, webinars, and the collaborative’s newsletter.

**Training opportunities and workshops**

The CRC also helps to build local government capacity through hosting and publicizing trainings and workshops. For example, the CRC partnered with NOAA and SMAQMD in 2015 to provide a three-day region-specific training workshop on adaptation for local governments and community organizations. On the first day of this training, participants learned about climate adaptation planning, climate science and impacts, and how impacts affect different sectors. The second day offered hands-on training on how to conduct vulnerability assessments and identify and assess adaptation measures. On the final day, participants learned strategies for effective climate communications and engaged in an interactive exercise to use all of the tools and knowledge from the workshop to identify adaptation and implementation strategies to address different climate issues.
CONCLUSION

The CRC represents many stakeholders in a politically and geographically diverse region, and other regions with similar characteristics or climate change risks can learn from how the CRC has engaged successfully with local and regional governmental authorities, nonprofits, academic institutions, utilities, and businesses. The CRC targets its outreach and initiatives in response to these realities in the region. For example, through efforts like the communications study funded by SMAQMD, the CRC has developed insights about how to best engage with and generate interest among policymakers and local leaders to address the impacts of climate change, which previously had not garnered much attention in the region. In much of its work, the CRC emphasizes the human impacts of climate change. Additionally, the CRC aims to provide value for key sectors of the region’s economy, like small businesses and agriculture, and has done so through its involvement in initiatives like Valley Vision’s Business Resiliency Initiative. There is room for the CRC to grow in these areas as it seeks opportunities to involve more community based organizations and groups that represent the needs of disadvantaged communities, businesses, the insurance industry, and other risk managers in collaborative initiatives. Finally, the CRC benefits the region by providing a more unified voice to help inform policy at state and federal levels that will benefit local jurisdictions in the capital region. As the collaborative continues to evolve, it may take on more targeted roles to help facilitate a regional response and strategies for addressing climate change impacts.
ENDNOTES

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

The author would like to acknowledge and thank representatives of the Capital Region Climate Readiness Collaborative (CRC) for taking the time to be interviewed and providing feedback on this case study, including: Larry Greene, Executive Director of the Sacramento Metropolitan Air Quality Management District; Jenny Welch, Project Manager at the Local Government Commission; and Shelley Jiang, Climate Change Coordinator at the Sacramento Metropolitan Air Quality Management District.


2 Greene Testimony at 2.

3 See CAPITAL REGION CLIMATE READINESS COLLABORATIVE, About the Capital Region Climate Readiness Collaborative, http://www.climatereadiness.info/about/.

4 The Alliance of Regional Collaboratives for Climate Adaptation (ARCCA) is a network of existing regional collaboratives from across California, created to “amplify and solidify their individual efforts, as well as to give a stronger voice to regionalism at the state and federal levels.” ALLIANCE OF REGIONAL COLLABORATIVES FOR CLIMATE ADAPTATION, http://www.arccacalifornia.org/.

5 See CAPITAL REGION CLIMATE READINESS COLLABORATIVE, Organizational Structure, Preamble (hereafter “CRC Organizational Structure”).


7 Warmer winter temperatures will continue to bring more precipitation to the Sierra Nevada Mountains in the form of rain rather than snow, and to cause snowpack to melt earlier and faster, increasing the intensity of runoff reaching the Capital Region.

8 Land subsidence in the region has been caused over the years by converting wetlands to other land uses. From the 1800s, many acres of wetlands were drained to create islands within the Delta, which were then protected by levees and converted in many cases to agricultural uses. The exposure of these previously wet soils to air causes decomposition and land subsidence. Now the Delta islands are well below sea level – in some areas by more than 20 feet – and this relative change will also be exacerbated as sea levels rise. For more discussion of this process and the flood risks, see U.S. GEOLOGICAL SURVEY, California Water Science Center, The Sacramento-San Joaquin Delta Land-Subsidence Monitoring Network, http://ca.water.usgs.gov/land_subsisence/bay-delta-subside.html.


11 Id.

12 Id. at 9. Furthermore, a large enough levee system failure in the Delta could cause water from the Bay to flow into the Delta, and this risk will increase as sea levels rise. Id. at 4.

13 In the agriculture sector, greater strain on water resources may require new management strategies or switching to drought-tolerant crops. Id. at 9. Groundwater is also commonly used for agricultural purposes in California; to address groundwater
depletion, California passed the Sustainable Groundwater Management Act in 2014, which will require planning for sustainable management of groundwater resources and authorizes the establishment of local agencies to undertake this planning. See State of California, California Groundwater – Legislation, http://groundwater.ca.gov/legislation.cfm.

14 Annual events by 2100 are expected to be comparable in intensity and duration to the region’s record-breaking 2006 heat wave. CAPITAL REGION CLIMATE READINESS COLLABORATIVE, “Climate Change Risks and Solutions for the Capital Region” at 5. The 2006 heat wave broke records for all-time record high minimum temperatures, and also for number of consecutive days over 100 degrees Fahrenheit. The heat wave lasted nearly 2 weeks, with 11 consecutive days reaching over 100 degrees in Sacramento, breaking the previous record of 9 consecutive days over 100 (most recently seen in 1996). See Daniel R. Kozlowski & Laura M. Edwards, NOAA Western Region Technical Attachment No. 07-05 (February 27, 2007), 9, available at http://www.cnrfc.noaa.gov/publications/heatwave_ta.pdf.

15 An extreme heat day is defined as “a day in April through October where the max temperature exceeds the 98th historical percentile of max temperatures based on daily temperature maximum data between 1961-1990.” For the Sacramento area, this corresponds to a temperature of 101 degrees Fahrenheit. See Cal-adapt, Temperature: Extreme Heat Tool, available at http://cal-adapt.org/temperature/heat/. See also CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY and CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, Preparing California for Extreme Heat, 4, October 2013, available at http://www.climatechange.ca.gov/climate_action_team/reports/Preparing_California_for_Extreme_Heat.pdf.

16 CAPITAL REGION CLIMATE READINESS COLLABORATIVE, “Climate Change Risks and Solutions for the Capital Region” at 5-6. Rising temperatures will increase the formation of ground-level ozone, which exacerbates asthma and can cause lung disease and other respiratory problems. Warmer temperatures will also expand the incidence of vector-borne diseases.

17 Id.

18 Id. at 9. Higher temperatures and more heat waves will affect infrastructure as well, causing more pavement deterioration, buckling of railroad tracks, electric grid instability, and other impacts. Id. at 6-7.

19 As rainfall and snowpack decline, forests and grasslands will experience greater drought conditions, increasing their risk of and vulnerability to wildfire. Furthermore, tree health is already deteriorating due to pests and insects that thrive in warmer conditions, bringing even greater risk of fire. CAPITAL REGION CLIMATE READINESS COLLABORATIVE, “Climate Change Risks and Solutions for the Capital Region” at 3.

20 Id.

21 Interview with Larry Greene, Executive Director of the Sacramento Air Quality Management District, Sept. 17, 2014 (hereafter “Greene Interview”).


23 For example, adaptation could be incorporated into emergency response planning for heat and wildfire. Greene Interview.

24 CAF Session; Greene Interview. The initial convening group included the Sacramento Area Council of Governments (SACOG) and The Sacramento Metropolitan Air Quality Management District (SMAQMD), as well as the nonprofit partners, the Local Government Commission and Greenwise Joint Ventures, and UC Davis. The Sacramento Area Council of Governments is the regional transportation planning agency and federally-designated Metropolitan Planning Organization (MPO) that administers federal funds for transportation projects across the six-county capital region. See SACRAMENTO AREA COUNCIL OF GOVERNMENTS, About SACOG, http://www.sacog.org/about/. The Sacramento Metropolitan Air Quality Management District is a regulatory agency overseeing air quality in the Sacramento County region. See Sacramento Metropolitan Air Quality Management District, About the Sacramento Metropolitan AQMD, http://www.airquality.org/about/index.shtml. Regulatory activity of the California air districts is overseen by the California Air Resources Board. See California Air Resources Board, Laws and Regulations, http://www.arb.ca.gov/html/lawsregs.htm. Other partners that became involved in the new collaborative early in the process included the Sacramento Municipal Utility District (SMUD, one of the region’s electric utility providers) and the City of Sacramento.

25 Greene Testimony at 2.

The LGC is a nonprofit, nonpartisan membership organization with over 35 years of experience connecting leaders from across the nation, providing specialized technical assistance, and facilitating conferences, workshops, and trainings to advance transformative policies and innovative solutions for sustainable communities. See LOCAL GOVERNMENT COMMISSION, What We Do, https://www.lgc.org/what-we-do/.

Capital Region Climate Readiness Collaborative, Join the Capital Region Climate Readiness Collaborative, http://www.climatereadiness.info/about/join/.

For example, the LGC receives and disburses funding for and on behalf of the CRC, and subcontracts on the CRC’s behalf as needed to support CRC efforts and to carry out the collaborative’s work plan. CRC Organizational Structure, Art. VII, sec. 1.

The Steering Committee may have up to 15 members, which are elected by the full CRC membership on an annual (rotating) basis for three-year terms.

As of July 2016, the CRC Steering Committee has representatives from SACOG (the region’s COG and MPO); the City of Sacramento; the City of Davis; the County of Sacramento; SMAQMD (the region’s Air District); the UC Davis Policy Institute for Energy, Environment, and the Economy; the Sacramento Municipal Utility District (SMUD, one of the region’s utility providers); Valley Vision (a nonprofit); Ascent Environmental (an environmental consulting company); and the LGC. See Capital Region Climate Readiness Collaborative, Steering Committee, http://www.climatereadiness.info/about/steering-committee/.

“The Steering Committee shall have the responsibility to work with the LGC to ensure that the CRC’s purpose and objectives are observed; ensure the financial health of the organization by contributing and soliciting funds; develop the CRC’s scope of work; define and enumerate the work plan and smaller work plans; approve official statements and positions advanced on the CRC’s behalf in public forums; execute any documents required to be executed in the CRC’s name; provide members with critical information related to their respective agencies’ participation in CRC activities; promote the work of the CRC to key stakeholders; elect officers of the Steering Committee; establish advisory and ad hoc committees, as needed; and perform such other functions as identified. The Steering Committee may also have the Local Government Commission staff accomplish any of the above-mentioned activities.” CRC Organizational Structure, Art. VI, sec. 1.

In instances where consensus cannot be achieved, a simple majority vote is generally required for any decision made by the Steering Committee. CRC Organizational Structure, Art. VI, sec. 8.

CRC Organizational Structure, Art. VI, sec. 6.

Interview with Jenny Welch, Local Government Commission; and Shelley Jiang, Sacramento Metropolitan Air Quality Management District, July 22, 2016 (hereafter “Welch and Jiang Interview”). These committees provide technical and policy analysis related to the specified project or program for which they are created, and make recommendations for consideration by the Steering Committee or full CRC membership. CRC Organizational Structure, Art. VI, sec. 6.

As of July 2016, the CRC has 20 members; current membership is available on the collaborative’s website at http://www.climatereadiness.info/about/members/.

Capital Region Climate Readiness Collaborative, Join the Capital Region Climate Readiness Collaborative, http://www.climatereadiness.info/about/join/.

Capital Region Climate Readiness Collaborative, CRC Channel Partner Structure (May 2016), provided by Jenny Welch. The option is intended for entities like state and federal agencies and professional organizations with regional branches in the capital region that are interested in collaborating with the CRC.

The CRC’s first Channel Partner organization joined in August 2016.

ARCCA, Regional Adaptation Collaborative Toolkit, Element 17: Secure Initial Funding (see Case Study: ARCCA Member Funding Models), http://www.arccacalifornia.org/toolkit/element7/.
“The CRC recognizes that from time to time individual member entities or combinations of entities may wish to assign greater resources to some issues and activities than the majority of voting members might choose to allocate from general dues payments earmarked for core activities. In such cases, sub-groups of interested members may make supplemental contributions dedicated specifically to addressing those issues or pursuing those activities as directed by sub-group members.” CRC Organizational Structure, Art. V, sec. 2.

Greene Interview; Welch & Jiang Interview.

C R C Organizational Structure, Art. IV, sec. 2; Art. V, sec. 1. Some foundational members do not contribute the full amount of dues normally specified for that category of membership, but do contribute more than what their dues would be otherwise under the regular membership category.

C A P I T A L R E G I O N C L I M A T E R E A D I N E S S C O L L A B O R A T I V E, Modified Membership Structure Options for Non-Profit Organizations (document provided by Jenny Welch). In-kind services can include outreach and communication, project support, ad-hoc committee support, quarterly meeting support, and more, and typically the commitment amounts to between 12 and 20 hours per year.


The CRC highlights grant opportunities and other programs that local governments can participate in, through its meetings and newsletters. The CRC has also occasionally assisted cities in the region with outside applications for funding and programs. Funding strategies and opportunities are topics of regular discussion at steering committee and stakeholder meetings.


Greene Interview.


I d. at 2.


The Little Hoover Commission is an independent state oversight agency created in 1962 to investigate government operations and make recommendations to improve efficiency and service. The Commission selects study topics from recommendations made by citizens, legislators, and others. L I T T L E H O O V E R C O M M I S S I O N, About the Commission, http://www.lhc.ca.gov/about/about.html.
California Capital Region Case Study – January 2017


63 The Task Force was established by Executive Order in 2013, convened governors, mayors, county officials, and Tribal leaders to advise the Administration on the needs of communities for responding to climate change.

64 CAPITAL REGION CLIMATE READINESS COLLABORATIVE, Projects and Initiatives, http://www.climatereadiness.info/about/projects-initiatives/.

65 Welch & Jiang Interview.

66 The Metro Chamber’s Capitol-to-Capitol program provides opportunities for the capital region’s business and community leaders to agree on and align around common issues affecting the Sacramento capital region, in advance of an annual trip to Washington, D.C. during which the region’s delegation holds discussions with the Administration and Congressional representatives. See Capitol-to-Capitol, https://metrochamber.org/events/capitol-to-capitol/.


69 CRC Organizational Structure, Art. VI, sec. 9. In particular, members may choose not to sign on to CRC statements if the CRC position conflicts with the member organization’s own position.


73 In particular, Valley Vision, SMAQMD, and the CRC – all as founding members of the BRI – have been involved in these efforts. The Chamber of Commerce, as a BRI partner and CRC member, has also helped communicate information about disaster preparedness and business continuity planning to the region’s small businesses. SACRAMENTO METROPOLITAN CHAMBER OF COMMERCE, Sacramento News: “Preparing Your Business for Disaster Resilience,” March 18, 2015.


76 CivicSpark is a partnership of the Local Government Commission and the Governor’s Office of Planning and Research with many partner organizations supporting the program.

77 CAPITAL REGION CLIMATE READINESS COLLABORATIVE, Climate Mitigation and Adaptation News, August 6, 2014, available at http://archive.constantcontact.com/fs193/1109315887509/archive/1118118712641.html; CAPITAL REGION CLIMATE READINESS COLLABORATIVE, Climate Readiness Collaborative’s CivicSpark Project Ideas, available at http://origin.library.constantcontact.com/download/get/file/1109315887509-257/Climate+Readiness+Collaborative%C3%A2%C2%80%C2%99s+CivicSpark+Project+Ideas.pdf. Several of the CRC members have also been more directly involved with the region’s CivicSpark program, including the LGC (which manages the program and its Fellows) and SMAQMD who provided funding for the program and hosted projects.


79 The Metropolitan Transportation Plan/Sustainable Communities Strategy is the region’s long-range transportation plan. To receive federal funding, MPOs must update these long-range transportation plans every four years. California law (SB 375) requires MPOs to include a Sustainable Communities Strategy with their Metropolitan Transportation Plan that demonstrates how the region will meet regional greenhouse gas emissions reduction targets. See INSTITUTE FOR LOCAL GOVERNMENT, The Basics of SB 375, http://www.ca-ilg.org/post/basics-sb-375.

81 SB 535 in California requires that a certain portion of auction proceeds from the state’s cap and trade program are allocated to benefit disadvantaged communities, as defined by CalEPA’s EnviroScreen process. See CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, Greenhouse Gas-Reduction Investments to Benefit Disadvantaged Communities, http://www.calepa.ca.gov/EnvJustice/GHGInvest/.


84 For example, the CRC advertised an informational webinar about the CivicSpark program in April 2015, and a Project Recruitment Webinar in May 2015. See CAPITAL REGION CLIMATE READINESS COLLABORATIVE, Past Events, http://www.climatereadiness.info/events/list/?tribe_event_display=past&tribe_paged=5.


The Georgetown Climate Center is grateful for generous support from the Kresge Foundation and the other funders that make our work possible.

This series of reports was prepared by Annie Bennett and Jessica Grannis with support from Hillary Neger and Sydney Menees. Please contact Annie Bennett (bennett@law.georgetown.edu) with any questions or comments about this report.