

Local Climate Change Actions in the Inland Empire Region:

Evidence from Jurisdictional
Climate Action Plans


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This report, the inaugural publication of our climate change series, provides an overview of the progress that jurisdictions in the Inland Region have made towards local climate actions. By reviewing local Climate Action Plans, we compare and contrast localities' greenhouse gas emission targets, reduction priorities, measurements, and strategies.

Key Facts:

1. In the Inland Region, no local jurisdictions published Climate Action Plans until 2010. The two counties (Riverside and San Bernardino) did not publish the county-level Climate Action Plans until 2015.
2. Transportation and residential/commercial energy consumption are identified as the two most critical contributors to greenhouse gas emissions in the Inland Region.
3. Accordingly, jurisdictions have identified measures to reduce vehicle miles traveled (VMT) and vehicle fuel emissions and improve the energy efficiency and consumption of commercial and residential buildings.
4. Jurisdictions in the Inland Region have different priorities in the reduction of vehicle-related emissions: some put more emphasis on promoting zero-emission vehicles, while some focus on a variety of land use strategies.
5. Few jurisdictions have utilized public opinion surveys to aid in the process of developing Climate Action Plans. However, when utilized, these surveys assisted the jurisdictions in the identification of the most important strategies/problems in sustainable development in the region.

Takeaways for Practice:

1. The development and implementation of Climate Action Plans varies across jurisdictions: different jurisdictions have different priorities in GHG emission reduction goals and realities.
2. The development and implementation of local Climate Action Plans could benefit from regional collaboration and coordination to achieve economies of scale, ensure local actions are somewhat consistent across jurisdictional boundaries, and can meet state-level emission reduction goals.
3. Input from the public can serve to educate members of the community on greenhouse emission reduction goals and requirements, identify priority measures to address and solicit community support as plans are developed and implemented.

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I. Introduction

The passage of Assembly Bill (AB) 32 in 2006 marked California’s ambition to significantly reduce greenhouse gas (GHG) emissions. AB 32 served as the country’s first state-level comprehensive and long-term plan to cut GHG, with a target of reducing the state’s GHG emissions to 1990 levels by 2020. This goal requires the state to cut approximately 15% of GHG under a “business as usual” scenario (California Air Resources Board, 2018). The Executive Order (EO) S-3-05 further expressed that the state aims to reduce GHG emissions to 80% below the 1990 levels by 2050. Later, Executive Order (EO) B-30-15 established the intermediate goal: reducing 40% of GHG emissions below the 1990 levels by 2030.

Meeting these climate goals requires local action. Climate Action Plans (CAPs), developed and implemented by local jurisdictions (counties and cities) throughout California voluntarily to meet the climate mitigation goals set by the state, are critical tools for local governments to identify major GHG emission sources, determine GHG emission reduction targets, and develop and implement approaches to meet those reduction targets. A survey by the Public Policy Institute of California in 2008 (Hanak et al., 2008) shows that only 7% of California’s jurisdictions had developed CAPs at that time. These jurisdictions are primarily municipalities with sufficient financial capacity to combat climate change, including the cities of Los Angeles and San Diego. Though plans do not transform directly into climate change action (Millard-Ball, 2013), they often demonstrate how local governments understand their roles in meeting AB 32 goals. Plans also may guide a locality’s understanding of the sources of GHG emissions, and the broad priority of cutting GHG emissions in general.

The Inland Region has many challenges in meeting AB 32 goals. According to the California Dream Index (California Forward, n.d.), which aims to evaluate the social inequity across social groups and regions in California, Inland Region residents suffer from the longest commute times and the second worst air pollution (after Los Angeles) among all regions in California. Given the Inland Region’s contributions in meeting the AB 32 goals and the long-term goals of EO S-3-05, this series of policy briefs and reports aim to understand the local responses to climate change in Riverside and San Bernardino Counties. As the first publication in this series, this report focuses on the mitigation strategies aiming to reduce GHG emissions in each local jurisdiction’s CAP in the following three aspects: (1) the status of CAP development by local jurisdictions in the Inland Region; (2) the primary GHG emission areas identified, the reduction targets of each jurisdiction and rationales behind these targets; and (3) major strategies for jurisdictions to reduce the GHG emissions and how strategies vary across localities.

II. The progress of CAPs in the Inland Region

As of November 2022, 21 of the total 53 municipal jurisdictions (~40%) have published CAPs. Both Inland Counties, Riverside and San Bernardino have also published CAPs (Appendix I and Appendix II show full listings). As shown in Figure 1, though AB 32 and EO S-3-05 were published in 2006 and 2005 respectively, jurisdictions in the region did not promulgate their own plans until 2010. As Appendix I shows, jurisdictions name their CAPs in different ways. For example, Fontana (in San Bernardino County) included CAP as a chapter in their general plan. Rancho Mirage and Temecula in Riverside County named their CAPs “Sustainability Plans”. Compared to standalone CAPs, these plans have adopted similar structures and goals.

Figure 1 shows a clear peak in publishing CAPs for the region’s jurisdictions: 2013. In this year, 7 jurisdictions published CAPs. Of these 7 cities, 5 are located in Coachella Valley: Blythe, Cathedral City, Desert Hot Springs, Palm Springs, and Rancho Mirage. These five cities have adopted consistent CAP frameworks and structures, and developed their GHG emission goals and strategies in similar ways. We discuss these similarities in more detail while comparing and contrasting CAPs in the following text.

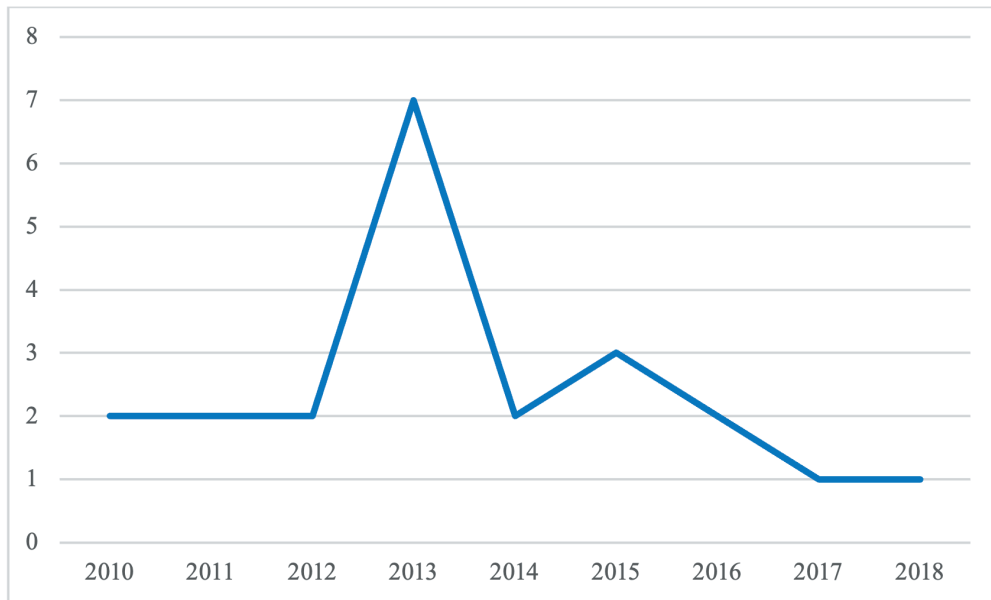


Figure 1 The number of local jurisdictions (excluded the counties) in the IE region publishing CAPs 2010-Present

In addition to the CAPs developed by each municipal jurisdiction separately, both Riverside and San Bernardino Counties, and one sub-regional government, the Western Riverside Council of Governments (WRCOG), also developed their CAPs. Though WRCOG is not a jurisdiction, we discuss their CAP because the two largest cities in the western portion of Riverside County, Riverside and Temecula, were key players in the development of the WRCOG CAP. Though the Riverside County CAP did not identify participating jurisdictions in their plan, the San Bernardino County and WRCOG clearly listed the participating jurisdictions. Appendix II presents the participation in regional CAPs for all jurisdictions in the Inland Region. Riverside County developed its first CAP in 2015 with a subsequent update in 2019. WRCOG and San Bernardino published their CAPs in 2014 and 2019, respectively. San Bernardino County’s CAP includes all jurisdictions and lists every jurisdiction’s inventory and reduction goals in detail. However, this county CAP was published only after all of the individual jurisdictions’ CAP’s were published. Participants in WRCOG, in contrast, included two large municipal jurisdictions (Riverside and Temecula) and smaller localities who had not developed their own CAPs prior to 2014. Though Riverside and Temecula developed their own CAPs, Temecula’s CAP functions as a sustainability plan, and generally covers carbon emission strategies. The City of Riverside did not develop their own CAP until 2016.

III. Primary emission areas and reduction targets

CAPs are based on community emission inventories. Inventories record each jurisdiction’s GHG emissions in different areas. From there, local governments develop GHG emission forecasts, determine reduction plans, and prioritize mitigation

areas. This section focuses on two critical areas in the inventories: 1) the share of GHG emissions for major sectors and 2) reduction targets. While the former shows the potential GHG emission reduction priorities in this region, the latter shows the municipality’s thoughts on climate change goals, and to what extent locality goals are consistent with the state goals.

1. Primary emission areas

Transportation emissions stand out as the largest GHG emission source in most jurisdictions, though municipalities have categorized the sectors of GHG emissions differently, and conducted inventories in different years. As shown in Table 1, transportation is the largest sector in GHG emissions in both counties and the WRCOG CAPS. Out of 18 municipal jurisdictions with inventory by sector in their CAPs, 15 have documented that transportation is the largest GHG emission source, ranging from 38% of total GHG emissions in Blythe (inventory year: 2010) to 74% in Upland (inventory year: 2008). The transportation sector accounts for less than one third of GHG emissions in only three city CAPs (Rancho Mirage, Palm Springs, and Colton) in the region (inventory year: 2010 for Rancho Mirage and Palm Springs, and 2008 for Colton).

Energy consumption for commercial or residential buildings is another significant contributor to GHG emissions in the region (Table 1). Some cities, such as Chino and Colton, identified “building energy” as a separate category in the inventory. Some others developed their inventory based on the energy sources (electricity/natural gas/others, e.g., Palm Springs, Rancho Mirage) or the business sector (residential/commercial/public, e.g., Redlands and Beaumont). Riverside County has specified that agriculture was the largest industrial GHG emission contributor in the region, making up more than one third (34.1%) of GHG emissions in 2017.

Regardless of how local governments categorize energy-related GHG emissions, energy consumption is the largest or second-largest emission source in most of the region’s jurisdictions according to CAPs. For example, in Colton, more than 60% of GHG emissions resulted from building energy; Redlands’ residential and commercial energy contributed to 40% of GHG emissions. And for the region as a whole, more than 80% of GHG emissions come from transportation and energy consumption.

Table 1 Primary GHG emission areas in CAPs in the Inland Region

Inventory jurisdiction	Inventory year	Areas with most emissions
County and subregion		
Riverside County	2017	On-road transportation (36.0%), Agriculture (34.1%)
San Bernardino County	2016	On-road transportation, Building energy
Western Riverside Council of Governments (WRCOG)	2012	Transportation (56%), Commercial/Industrial energy (23%), Residential energy (19%)
Municipalities		
Chino	2016	On-road transportation (53%), Building energy (33%), Solid waste (7%)
Redlands	2015	Transportation (40.7%), Residential (23.1%), Commercial (17.4%)
Beaumont	2014	On-road transportation (62%), Residential energy (20%), Commercial energy (12%)
Apple Valley	2013	Transportation (67%), Residential (21%), Commercial (8%)

Coachella	2010	Transportation (54%), Commercial, industrial, and public (19%), residential (17%)
Blythe	2010	Transportation fuel (38%), Electricity (38%), Natural gas (18%)
Cathedral City	2010	Transportation fuel (31%), Electricity (40%), Natural gas (17%)
Palm Springs	2010	Electricity (42%), Natural gas (28%), Transportation fuel (20%)
Rancho Mirage	2010	Electricity (43%), Transportation fuel (33%), Natural gas (20%)
Moreno Valley	2010	Vehicle fleet (57%), Electricity (20%), Natural gas (12%)
Murrieta	2009	Transportation (48.3%), Residential (23.5%), Commercial (15.4%)
Fontana	2008	Transportation (51%), Building energy (39%)
Colton	2008	Building energy (60.1%), Transportation (31.6%)
Upland	2008	Transportation (74%), Energy (18.6%)
Corona	2008	Transportation (48%), Energy (44%)
Lake Elsinore	2008	Transportation (60.6%), Energy (32.4%)
Riverside City	2007	Transportation (43.0%), Commercial/Industrial energy (34.0%)
Hesperia	2006	Transportation (39%), Electricity (22%), Industrial (21%)

2. GHG emission reduction targets

Table 2 shows the reduction targets in CAPs for jurisdictions in the region. As the table demonstrates, most municipalities have adhered to the goal of AB 32: reduction of GHG emissions to 1990 levels by the end of 2020. However, three cities (Corona, Moreno Valley, and Murrieta) have adopted another recommendation in AB 32: 15% reduction by 2020. Temecula, which published its Sustainability Plan in 2010, set the goal of reducing its community-wide energy use by 2015. One should note that these two goals are not equivalent. The 15% reduction goal is a recommendation based on the inventory of the entire state, while meeting the goal of reducing GHG emissions to the 1990 levels by 2020 requires more ambitious reduction plans for some jurisdictions. For example, Colton met its goal of reducing GHG emissions to the 1990 levels by 2020, however, the city has reduced 34.7% of GHG emissions since 2008.

Some jurisdictions have developed reduction goals beyond 2020. While AB 32 sets the goal for 2020, EO S-3-05 proposed a longer-term vision for GHG emissions in 2050: 80% below 1990 levels. EO B-30-15 further proposed an intermediate goal: reducing the GHG emissions to 40% below the 1990 levels by 2030. Five cities (Chino, Redlands, Beaumont, Coachella, and Lake Elsinore) have stated their goals for 2030 or 2035. Compared to the municipality CAP goals, the goals of the county and subregion CAPs were published later and focused more on the middle- and long-term goals. The San Bernardino County CAP, which is based on the 2016 inventory, has set jurisdiction-varying goals based on the GHG emission differences in its jurisdictions.

Five cities in the Coachella Valley (Blythe, Cathedral City, Desert Hot Springs, Palm Springs, and Rancho Mirage) have developed their own goals consistent with the AB 32. These localities have summarized seven different spheres for emission reduction areas: where we live, where we work, how we build, how we get around, how we govern, where we visit and play, and how we teach and learn. Based on these seven areas, these CAPs have detailed the GHG emissions in each category and developed specific reduction targets.

Table 2 Reduction targets in CAPs of jurisdictions in the Inland Region

Inventory city	Inventory year	Reduction targets
County and subregion		
Riverside County	2017	Meet the state targets in 2020, 2030, and 2050 based on AB 32, EO S-3-05, and EO B-30-15
San Bernardino County	2016	The reduction targets vary across jurisdictions based on the state's reduction targets. More specifically, the reduction goals of the jurisdictions in 2030 include a range of custom levels for the partnership municipalities between 25% and 46% below 2008, and 36% to 42% below 2020 business-as-usual scenarios.
Western Riverside Council of Governments (WRCOG)	2012	A 15% reduction in 2020 based on the 2010 levels, and a 49% reduction in 2035 based on the 2007 baseline
Municipal jurisdictions		
Chino	2016	AB 32 goal: Achieved in 2020 to reduce 15% by 2020 from 2008, 46% below the 2008 emissions in 2030
Redlands	2015	Based on EO B-30-15 and CARB recommendations, MTCO _{2e} 6/capita/year in 2030, 5/capita/year in 2035
Beaumont	2014	15% reduction in 2020 from 2012, 41.7% below the 2012 level in 2030 (to the state long-term goal to reduce 80% below the 1990 level in 2050)
Apple Valley	2013	15% below the 2005 levels by 2020
Coachella	2010	MTCO _{2e} 7.0/capita/year in 2020, 4.2/capita/year in 2035
Blythe	2010	25,660 tons of CO _{2e} by a total of 7 sectors by 2020
Cathedral City	2010	56,087 tons of CO _{2e} by a total of 7 sectors by 2020
Palm Springs	2010	Based on AB 32 goals by a total of 7 sectors, only reduce 1% by 2020
Temecula	NA	Community-wide energy use reduction by 15% by 2015
Rancho Mirage	2010	Based on AB 32 goals by a total of 7 sectors by 2020
Moreno Valley	2010	Based on AB 32 goals, 15% reductions in 2020 compared to 2008
Murrieta	2009	Based on AB 32 goals, 15% reductions in 2020 compared to 2008
Fontana	2008	N/A
Colton	2008	34.7% reductions in total emissions by 2020, goal met
Upland	2008	16% below the 2008 level in 2020, and achieve the AB 32 goals
Corona	2008	Based on AB 32 goals, 15% reductions in 2020 compared to 2008
Lake Elsinore	2008	Based on AB 32 and Executive Order S-3-05, 48.2% reduction from the 2008 level by 2020, 48.2% by 2030
Riverside City	2007	Consistent with the WRCOG goals, a 15% reduction in 2020 based on the 2010 levels, and a 49% reduction in 2035 based on the 2007 baseline
Hesperia	2006	29% reductions from 2006 to 2020: to the 1990 level in 2020

IV. GHG emission reduction strategies

Based on the GHG emission reduction plans, jurisdictions have documented the measurements and strategies to reduce GHG emissions in their CAPs. Based on Hanak et al. (2008) and the strategies in the CAPs, these strategies can be summarized into 8 categories (Table 3): (1) Promoting alternative travel modes, in particular, encouraging the reduction of driving and the promotion of alternative travel modes; (2) Promoting electric vehicles and alternative-fuel vehicles; (3) Increasing energy efficiency; (4) Reducing water consumption and conserving water resources; (5) Managing and treating waste; (6) Promoting green buildings; (7) Encouraging efficient land use strategies such as transit-oriented development and infill development; and (8) Offsetting carbon emissions by planting trees and other landscape strategies.

1. Common themes in the CAPs of jurisdictions in the Inland Region

Transportation and energy consumption are two major sources of GHG emissions in the region. As shown in Table 3, both counties, WRCOG, and all jurisdictions have mentioned strategies related to promoting alternative travel modes and increasing energy efficiency. All except one jurisdiction mentioned strategies related to green building, including installing solar panels in homes and using sustainable materials and energy-efficient technology in existing and newly built commercial buildings.

Jurisdictions also identified similar strategies in other areas, reflecting the common climate change problems identified by local jurisdictions. For example, almost all jurisdictions identified waste and water management as part of their GHG emission reduction strategy. Five jurisdictions did not include land use strategies in their CAPs, and another five did not include landscape strategies such as planting trees and conserving forestry.

2. Variations in the climate actions in CAPs

A closer look at each CAP indicates that jurisdictions broadly vary in climate actions in two distinct ways: (1) A variety of jurisdictions do not specify how different categories of strategies will aid in meeting GHG emission reduction goals and (2) Jurisdictions have disparate judgments of the effectiveness of various reduction strategies. The following discussion highlights these differences:

While most jurisdictions have developed detailed GHG emission plans and linked reduction goals to specific strategies (e.g., vehicle electrification, improving energy efficiency), others have only listed the GHG emission goals in broad areas (e.g., transportation and energy) and general goals. For example, Fontana and Yucaipa only enumerated the general reduction spheres and measurements for meeting GHG emission goals. Yucaipa listed some specific goals in GHG emissions, for example, installing solar panels on 5% of existing single-family homes. However, in terms of specific reference, such goals do not directly relate to the GHG emission estimations. Lake Elsinore has developed carbon emission goals for general areas and has identified that transportation is the most important area to target to reduce GHG emissions. However, the City did not specify how the GHG emission goals can be met by specific strategies, such as electrifying vehicles or promoting alternative travel modes.

Consistent with the GHG emission inventories, jurisdictions have developed goals for certain areas of GHG emission contributors. For example, most jurisdictions have identified transportation-related strategies and commercial and residential building energy efficiency programs that can significantly reduce GHG emissions. Several jurisdictions (Cathedral City, Palm Springs, Rancho Mirage, and Desert Hot Springs, for example) have specified that energy efficiency-related GHG emission reductions can be effectively achieved by implementing Property Assessed Clean Energy (PACE) programs for

the residential and commercial sectors. Additionally, many jurisdictions have put emphasis on reducing GHG emissions by promoting electrification and alternative energy sources for vehicles. Chino, Coachella, Corona, and Redlands all promoted zero-vehicle emission vehicles as the most important strategy to reducing GHG emissions.

However, other jurisdictions have put sustainable community development, which emphasizes the transportation efficiency of compact and mixed-use development, as critical areas to reduce GHG emissions. Apple Valley, Hesperia, Moreno Valley, Murrieta, and Upland identified land use as an essential part of GHG emissions. These strategies include mixed land use development, parking requirements, and transit-oriented development. Based on the estimates from Apple Valley, GHG emission potential is greater for mixed land use than improving fuel efficiency of vehicles. Murrieta has included strategies to improve walkability and accessibility of communities in their city’s design standard since 2013 and has developed a number of ways to increase walkability and accessibility, for example, adding pedestrian or bicycle connections to all new cul-de-sacs in new projects, and developing a 0.5-mile walkability standard to improve residents’ access to living amenities.

Table 3 GHG emission reduction strategies in CAPs among Inland Region jurisdictions

	Promoting alternative travel modes	Promoting electric vehicles and alternative-fuel vehicles	Energy efficiency (e.g. energy standards)	Water consumption and conservation	Waste management and treatment	“Green” building (e.g. LEED standards, recycled content, solar panels)	Land use (e.g. transit-oriented development)	Offsetting carbon emissions (e.g. tree planting, forestry conservation)
County and subregion								
Riverside	Y	Y	Y	Y	Y	Y		Y
San Bernardino	Y	Y	Y	Y	Y	Y	Y	Y
WRCOG	Y	Y	Y	Y	Y	Y	Y	Y
Municipalities								
Riverside	Y	Y	Y	Y	Y	Y	Y	Y
Chino	Y	Y	Y	Y	Y	Y		
Fontana	Y		Y	Y		Y	Y	
Redlands	Y	Y	Y			Y	Y	Y
Beaumont	Y	Y	Y	Y	Y	Y		Y
Colton	Y		Y	Y	Y	Y		Y
Coachella	Y		Y	Y	Y		Y	Y
Upland	Y	Y	Y	Y	Y	Y	Y	Y
Apple Valley	Y	Y	Y		Y	Y	Y	

Blythe	Y	Y	Y	Y	Y	Y	Y	Y
Cathedral City	Y	Y	Y	Y	Y	Y	Y	Y
Desert Hot Springs	Y	Y	Y	Y	Y	Y	Y	Y
Palm Springs	Y	Y	Y	Y	Y	Y	Y	Y
Rancho Mirage	Y	Y	Y	Y	Y	Y	Y	Y
Temecula	Y		Y	Y	Y	Y		Y
Corona	Y	Y	Y	Y	Y	Y	Y	Y
Moreno Valley	Y	Y	Y	Y	Y	Y	Y	Y
Lake Elsinore	Y	Y	Y	Y	Y	Y	Y	Y
Murrieta	Y	Y	Y	Y	Y	Y	Y	Y
Hesperia	Y	Y	Y	Y	Y	Y	Y	
Yucaipa	Y		Y	Y	Y	Y	Y	

Some other jurisdictions also developed specific priorities in GHG emission reduction strategies: Beaumont, for example, highlighted that they would follow the requirements of SB X7-7 (The Water Conservation Act) and reduce GHG emissions by 1,259 MTCO₂e by 2020. The reduction achieved through this strategy is expected to result in more emission efficiency than vehicle electrification. Desert Hot Springs stated “reduce retail leakage” as the most important strategy for reducing GHG emissions. This strategy aims to reduce vehicle miles traveled and GHG emissions by attracting big-box stores to cities. Also, as a way to reduce driving in the digital era, the City of Riverside emphasized a reliance on telecommuting as a policy to reduce vehicle travel and carbon emissions. Murrieta, as previously mentioned, emphasized the role of neighborhood design in GHG emissions. Interestingly, the city further noted that the key to reducing GHG emissions is sustainable economic development: attracting more new and emerging businesses to locate in their city.

3. The role of public participation

Many of the strategies to reduce GHG emissions listed above require public participation. Though almost all CAPs required community participation, outreach, and education as implementation strategies, only four jurisdictions (Beaumont, Chino, Murrieta, and Fontana) have used public opinion surveys to more actively solicit the public’s opinion on climate actions. Fontana asked participants in a CAP workshop to vote for the following three statements:

1. “I would like Fontana to meet the greenhouse gas reduction targets in the draft Climate Action Plan”;
2. “I would like Fontana to be known as an energy-efficient community”;
3. I would like to see a “Sustainable Fontana” program just like we have a “Healthy Fontana” program”.

Beaumont, Chino and Murrieta each asked participants to identify their priorities for CAP GHG emission strategies or the most urgent programs facing sustainable development in the city. Identified by residents in Chino and Beaumont, the three most important methods to reduce GHG emissions included transportation, energy efficiency, and water conservation. Conversely, Murrieta’s residents identified the three most urgent problems in sustainable development as: sustainable economy, jobs-housing balance (reducing long commutes), and transportation (alleviating congestion and using alternative ways to get to destinations).

4. Climate adaptation plans

Though the primary purpose of CAPs is to identify measures to mitigate GHG emissions, four jurisdictions (Chino, Coachella, Blythe, and Hesperia) also developed adaptation plans to address climate change. These cities identified three major climate change issues in the region: extreme heat, drought and wildfire, and flooding. These cities have identified strategies to address climate change issues, such as establishing community cooling centers, making the new infrastructure more climate-resilient to flood and wildfire, and developing evacuation plans for emergency situations.

V. Conclusions and future research

California is viewed as a national leader in climate action. The state has proposed long-term goals to reduce GHG emissions including the reduction of GHG emissions to 80% under 1990 levels by 2050. Achieving this goal requires local efforts. This report overviews the local climate actions for jurisdictions in the region by examining jurisdictional CAPs.

- No jurisdictions in the region had published CAPs until 2010. However, by 2019, 21 local jurisdictions and the two counties in the Inland Region have published CAPs.
- A sub-regional CAP was developed in 2014 by WRCOG. The County, WRCOG, and local jurisdiction CAPs all identify the two largest contributors to GHG emissions as transportation and energy.
- Most CAPs have followed the requirements of AB 32 and proposed to reduce GHG emissions to 1990 levels by 2020. However, only a few, including the county and WRCOG CAPs have identified GHG emission reduction targets by 2030 and beyond.
- Jurisdictions have shown variations in GHG emission strategies. While a few only listed strategies, most of the jurisdictions with CAPs have specified GHG emission goals by specific strategies or programs (e.g., vehicle electrification, compact development, and installing solar panels).
- Consistent with the emission inventories, most jurisdictions have identified energy reduction and sustainable transportation as two priorities for reducing GHG emissions. Even so, jurisdictions have different views on the effectiveness of reducing GHG emissions through various strategies. While some prioritize zero-emission vehicles, others have focused on land use policies that aim to reduce travel and driving demand.
- Based on our research, only four jurisdictions utilized formal public input in developing their CAPs.
- While CAPs mainly focus on climate change mitigation, some cities have identified strategies to adapt to the climate change situations, such as flooding, extreme heat, and wildfire.

This policy brief discusses climate actions at the local level. First, the brief demonstrates that while jurisdictions in the Inland Region face common climate change issues, the priorities of jurisdictions related to how to address these problems differ. For example, while transportation is identified as the largest emission contributor in most jurisdictions participating in the WRCOG CAP, building energy is identified as the largest GHG contributor in the cities of Coachella Valley. Therefore, when monitoring the implementation of CAPs, the county and state should encourage measurements designed based on the realities of different jurisdictions.

Second, the updates and implementation of CAPs could likely benefit from additional regional collaboration and coordination, where economies of scale could be achieved among jurisdictions that are essentially addressing the same problems and requirements. Moreover, the Inland Region is an underserved region in the state, and some of the localities do not have sufficient funding sources, resources, and staff to develop and implement CAPs; these jurisdictions - and their neighbors - would all benefit from a regional response to GHG planning. Additionally, most of the current municipal CAPs lack GHG emission goals for 2030 or 2050, leading to unclear actions for local jurisdictions in the long-term. In contrast, the San Bernardino and WRCOG CAPs have clearly linked jurisdictional goals with county goals in GHG emissions. The San Bernardino County CAP also states that evaluating the performance of some programs requires inter-jurisdictional collaboration at the county level. Five cities in Coachella Valley have developed plans in similar structures, and have published the plans in the same year. Chino and Beaumont also show similar CAP structures and organizations. San Bernardino

County’s CAP was developed after most local jurisdictions’ CAPs, and considered different priorities in the reduction of GHG emissions for different jurisdictions. The City of Riverside developed its own CAP after WRCOG and followed similar reduction targets. These observations show the potential for intercity collaborations to promote mutual learning and the discussion of climate change actions.

Third, this brief shows the potential of the co-production of climate actions between local governments and the public. Public opinion surveys can help jurisdictional leaders as they craft GHG reduction plans tailored for their communities, in addition to providing educational opportunities regarding GHG reductions and perhaps ultimately advancing public support for final documents and plans. For example, Murrieta’s CAP has included jobs-housing balance and sustainable economic development, which was mentioned by members of the community in surveys. Public opinion in other communities also provided input for cities to consider the feasibility of and priorities in climate actions.

Appendix I Jurisdictional CAPs in the IE region

Jurisdiction	County	Note	Year
Hesperia	San Bernardino		2010
Temecula	Riverside	Sustainability plan	2010
Lake Elsinore	Riverside		2011
Murrieta	Riverside		2011
Corona	Riverside		2012
Moreno Valley	Riverside	Greenhouse Gas Analysis	2012
Apple Valley	San Bernardino		2013
Blythe	Riverside		2013
Cathedral City	Riverside		2013
Desert Hot Springs	Riverside		2013
Palm Springs	Riverside		2013
Rancho Mirage	Riverside	Sustainability Plan	2013
Coachella	Riverside		2014
Upland	San Bernardino		2014
Beaumont	Riverside		2015
Colton	San Bernardino		2015
Yucaipa		San Bernardino	2015
Riverside	Riverside		2016
Redlands	San Bernardino		2017
Fontana	San Bernardino	A chapter in the General Plan	2018
Chino	San Bernardino		2013 (updated in 2020)

Appendix II Participation in regional CAPs for all jurisdictions in the Inland Region

Jurisdiction	County	Locally adopted CAP	Participation in WRCOG CAP	Participation in San Bernardino County CAP
Adelanto	San Bernardino			Y
Apple Valley	San Bernardino	Y		Y
Banning	Riverside		Y	
Barstow	San Bernardino			Y
Beaumont	Riverside	Y		
Big Bear Lake	San Bernardino			Y
Blythe	Riverside	Y		
Calimesa	Riverside		Y	
Canyon Lake	Riverside		Y	
Cathedral City	Riverside	Y		
Chino	San Bernardino	Y		Y
Chino Hills	San Bernardino			Y
Coachella	Riverside	Y		
Colton	San Bernardino	Y		Y
Corona	Riverside	Y		
Desert Hot Springs	Riverside	Y		
Eastvale	Riverside		Y	
Fontana	San Bernardino	Y		Y
Grand Terrace	San Bernardino			Y
Hemet	Riverside		Y	
Hesperia	San Bernardino	Y		Y
Highland	San Bernardino			Y
Indian Wells	Riverside			
Indio	Riverside			
Jurupa Valley	Riverside			
La Quinta	Riverside			
Lake Elsinore	Riverside	Y		
Loma Linda	San Bernardino			Y
Menifee	Riverside			
Montclair	San Bernardino			Y
Moreno Valley	Riverside	Y		

Murrieta	Riverside	Y		
Needles	San Bernardino			Y
Norco	Riverside		Y	
Ontario	San Bernardino			Y
Palm Desert	Riverside			
Palm Springs	Riverside	Y		
Perris	Riverside		Y	
Rancho Cucamonga	San Bernardino			Y
Rancho Mirage	Riverside	Y		
Redlands	San Bernardino	Y		Y
Rialto	San Bernardino			Y
Riverside	Riverside	Y	Y	
San Bernardino	San Bernardino			Y
San Jacinto	Riverside		Y	
Temecula	Riverside	Y	Y	
Twentynine Palms	San Bernardino			Y
Upland	San Bernardino	Y		Y
Victorville	San Bernardino			Y
Wildomar	Riverside		Y	
Yucaipa	San Bernardino			Y
Yucca Valley	San Bernardino			X

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