



Climate Resilience Landscape Analysis of Southern California Jurisdictions

October 17, 2022

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CLIMATE RESILIENCE LANDSCAPE ANALYSIS

Resilience Landscape Analysis

Connect SoCal 2020 Resilience Goals:

- Define “resilience”
- Understand the impacts of disruptions (shocks/stressors) across the region
- Conduct meaningful outreach & engagement
- Identify strategies to reduce vulnerabilities & increase regional resilience
- Conduct an exploratory scenario planning process
- Support implementation of Connect SoCal strategies



Resilience Landscape Analysis



Resilience Landscape Analysis

Project Goals:

- Identify Resilience Focus Areas (RFAs)
- Conduct Gap Analysis on Resilience Planning
- Recommendations/Next Steps

Key Deliverables:

- Matrix Spreadsheet of “Resilience Focus Areas” (RFAs) & Potential Shocks/Stressors
- Gap Analysis of Resilience Planning Efforts Report
- Next Steps Summary Report



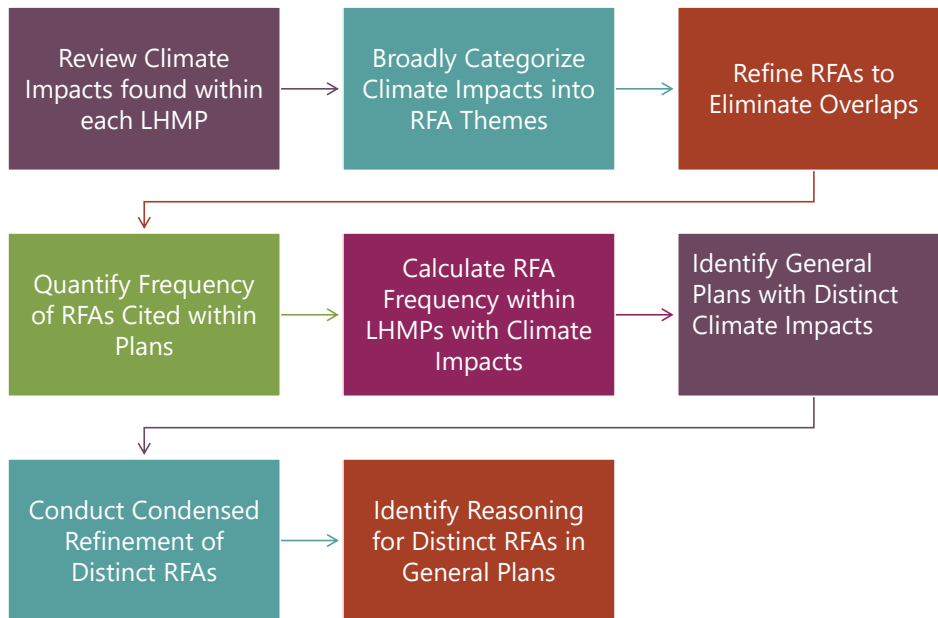
Resilience Focus Areas (RFA) Analysis & Matrix

County	Municipality	Name, title, affiliation, contact information of key staff	Municipality has a sustainability (climate, sustainability, and/or resilience plan)?	Plan that includes climate action (mitigation)?	Plan that includes climate adaptation?	What departments and stakeholders were involved in creating this plan?	Municipality has a Local Hazard Mitigation Plan (LHMP) or other created by City or from the County?	When was LHMP last updated?	Does LHMP account for climate change?	If updated for climate, did climate impacts relevant?	Updated General Plan per SB 379 & SB 1035?	SB 379 Integration reference to LHMP General Plan safe?
San Bernardino	Ardenite	Tyler Ryan tyler@ardenite.com Tel: 760.246.2300 x 11289	No	No	No		No				No	No
Los Angeles	Agoura Hills	Denise Thomas, Community Development Director Tel: (818) 897-7311 dthomas@agourahills.org	No	No	Yes	LA Associates, Inc.	No	2018 (San Virginia/Victoria 000's to 2019)	Yes	Temperature Rise, Wildfire, Sea Level Rise	Yes	Yes (reference)
Los Angeles	Altamira	Paul Lahn, Principal Planner Tel: (826) 170-8204 plahn@schubertinc.org	No	No	No		No				No	Yes (action plan)
Orange	Aliso Viejo	Other Operations, Community Development Director Tel: 949-435-0337 adad@ov@schubertinc.com	No	No	No		No				No	No
Orange	Ardenheim	Neil White, Planning Director Tel: (714) 783-8011 neilwhite@ardenheim.net	No	No	No		Yes	2017 (Ardenheim LHMP)	Yes	Flood, Wildfire, Drought	No	No
San Bernardino	Apple Valley	Daniel Azevedo, Planning Manager Tel: 909.240.7000 x 7005 dazevedo@applevalley.org	No	Yes	No	Team Departments - Finance and Environment and Regulatory Compliance Southern California Edison Southern Gas Corporation California Victor Valley Transit Agency	Yes	2017 (City of Apple Valley)	Yes	Flood, Wildfire	No	Yes (reference)

Resilience Focus Areas Analysis & Matrix

- **Study area:**
 - SCAG region (191 cities, 2 tribal communities)
- **Compilation of climate-related resilience planning efforts**, including review of
 - CAPs & CAAPs
 - Sustainability Plans
 - Resilience Plans
 - LHMPs
 - General Plans (SB 379, SB 1035, SB 1000)
 - Emergency Operations/Management Plans
- **Climate Strategies**
- **State & Local Climate Resources**
- **RFA Analysis Statistics**

RFA Analysis & Matrix: Methodology



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Resilience Planning Findings Across the SCAG Region*

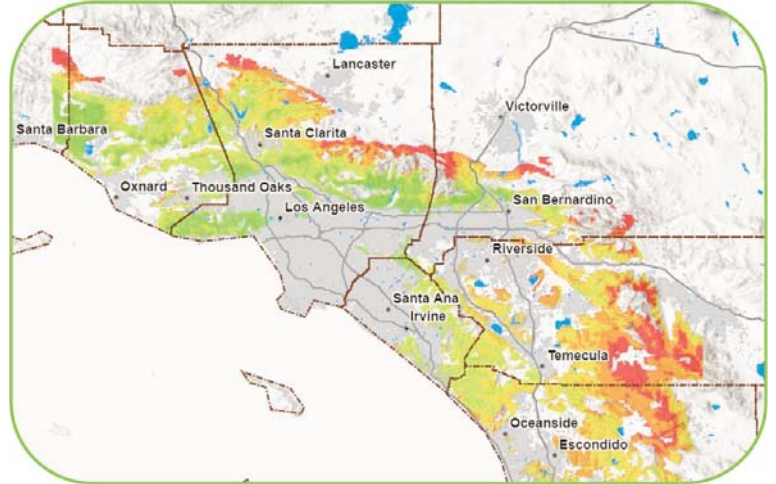
- **86 out of 193 (45%)** jurisdictions adopted a standalone climate, sustainability, and/or resilience plan
 - 30 of the 86 plans include adaptation strategies
- **141 out of 193 (73%)** jurisdictions adopted an LHMP (either local or multijurisdictional)
 - 105 of the 141 adopted an LHMP accounting for climate change impacts
- **19 out of 193 (10%)** jurisdictions updated General Plans per SB 379 & SB 1035
 - SB 379 requires Safety Elements to be updated to address climate risks by 2022
 - SB 1035 expands Safety Elements to also be updated upon revision to the Housing Element or LHMP
- **104 out of 193 (54%)** jurisdictions have DACs (CalEnviroScreen 4.0)
 - 17 of the 104 adopted environmental justice goals, policies, and objectives
 - 10 of the 17 updated General Plans per SB 1000

*Data as of March 2022

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Common RFAs Across the Region (most to least common)

- Drought
- Flood
- Wildfire (wildfire & urban fire)
- Extreme Heat
- Non-heat-related Severe Weather
- Sea Level Rise
- Tsunami
- Infrastructure Failure
- Coastal Erosion
- Non-drought Water Issues



Climate-related Shocks & Stressors in the Region

<p>Shocks</p> <p><i>Sudden or acute events that threaten immediate safety and well-being</i></p>	<p>Stressors</p> <p><i>Chronic challenges that weaken natural, built, or human resources</i></p>
<ul style="list-style-type: none"> • Avalanche • Drought • Earthquake • Extreme Cold • Extreme Heat • Flood • Hazard Material Release • Infrastructure Failure • Landslide • Non-heat-related Severe Weather 	<ul style="list-style-type: none"> • Access & Function Needs Population • Access to Open Space • Age Dependency Ratio • Aging Infrastructure • Car-less Households • Economic Security • Educational Attainment • Female Head of Household • Food Insecurity • Foreign Born

Key Takeaways & Next Steps

• Key Takeaways:

- Most frequently cited RFAs in LHMPs & GPs are drought, flood, and wildfire
- Further analysis is needed to identify connections between RFAs

• Next Steps:

- Growth-truth landscape analysis findings via Regional Resilience Framework project
- Conduct stakeholder outreach
- Expanded studies on resilience planning efforts by County and/or subregion
- Evaluate landscape analysis lessons learned

County	Municipality	Name, Affiliation, Contact Information (if any)	Municipality has a plan/strategy for drought, flood, wildfire, or other RFA?	Plan that includes climate change adaptation?	Plan that includes climate change adaptation?	Other departments and/or organizations are involved in creating the plan?	Municipality has a local resilience integration plan (and/or other related to City or Metropolitan Council)?	When can this be updated?
San Bernardino	Arden	Arden arnden@arnden.com Tel: (909) 252-1128	Yes	Yes	Yes	Yes	Yes	
Los Angeles	Agua Fria	David Thomas, Community Development Director Tel: (818) 897-7151 dthomas@aguarifria.org	Yes	Yes	Yes	Yes	Yes	2022 City of Agua Fria
Los Angeles	Arden	Raygan, Planning Director Tel: (818) 897-7151 raygan@arnden.com	Yes	Yes	Yes	Yes	Yes	
Orange	Arden	Arden arnden@arnden.com Tel: (949) 452-2027	Yes	Yes	Yes	Yes	Yes	
Orange	Arden	Raygan, Planning Director Tel: (818) 897-7151 raygan@arnden.com	Yes	Yes	Yes	Yes	Yes	2022 Arden
San Bernardino	Arden	Arden arnden@arnden.com Tel: (909) 252-1128	Yes	Yes	Yes	Yes	Yes	2022 City of Arden

Completed March 2022



LANDSCAPE ANALYSIS FOR THE INLAND SOUTHERN CALIFORNIA REGION

Landscape Analysis Report for the Inland Southern California Region

- Overview of the Region
- Overview of Climate Impacts
- Climate Preparedness Planning
- Climate Action in the Region
- Funding and Financing Climate Preparedness
- Get Involved - Next Steps



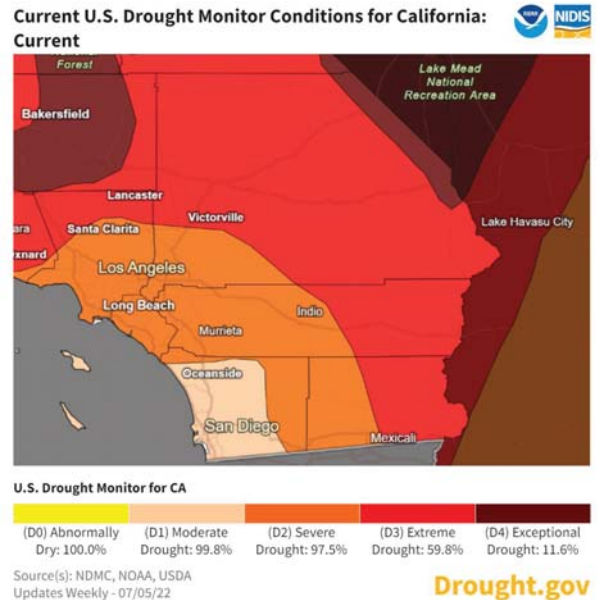
→ Overview of the Region

- ◆ Imperial, Riverside, and San Bernardino Counties
- ◆ Demographics & Economy
 - Hispanic or latino population is 50% or higher in each county and high percentage of Spanish speakers
 - Economy highly reliant on agriculture and logistics industry. High percentage (~30%) of outdoor workers in each county



→ Overview of Climate Impacts

- ◆ **Air quality**
 - San Bernardino & Riverside County ranked 1st and 2nd for the worst ozone pollution in the nation
 - Imperial, Riverside, and San Bernardino Counties were among the fourteen counties that received a failing grade for all three measures of pollution (Daily PM, Annual PM, and Ozone)
- ◆ **Heat**
 - increase of extreme heat days, daily maximum temperatures, heat waves
- ◆ **Drought**
 - Each county is expected to see extended periods with little to no precipitation
- ◆ **Flooding**
 - Each county is projected to see more frequent flooding events
- ◆ **Landslides**
 - Riverside and San Bernardino counties are projected to see an increase in the probability of landslides
 - Since Imperial County is generally flat the probability of landslides are not considered a major hazard
- ◆ **Wildfires**
 - Each county may be expected to see an increase in annual average area burned and risk of a wildfire occurring



→ Climate Preparedness Planning – Status of planning in the Inland Southern California region

SB 379 (2016): Climate Adaptation and Resiliency strategies

- Imperial County and Riverside County both have adopted County Multi-Jurisdictional Hazard Mitigation (MJ HMP) plans in compliance with SB 379.
 - **Imperial County:** All 7 cities participated in the creation and adoption of the County's MJ HMP
 - **Riverside County:** All 28 municipalities participated in the creation and adoption of the County's MJ HMP
- **San Bernardino County** has an adopted MJ HMP, which serves only the unincorporated areas within the county.
 - 17 out of 24 municipalities in San Bernardino County have adopted their own Local Hazard Mitigation Plan to account for climate change impacts.

SB 1000 (2016): Environmental Justice strategies

- Across the Inland Southern California region, **62% of municipalities are identified to have DAC census tracts.**
- Out of the 37 municipalities to have DAC census tracts within their jurisdiction, only **27%** of them have updated their General Plans to comply with SB 1000.

→ Climate Action in the Region

- ◆ **Warming and Cooling Centers** – locations open to the public to shelter from extreme weather events, locations usually found within a city's website
- ◆ **Air Quality**
 - *Imperial County Community Air Monitoring Project* – air monitoring network that makes community-level air quality data available in real-time to residents
- ◆ **Urban Greening**
 - *GrowRIVERSIDE* – includes a co-work learning center, training & workforce development, education programs, a community garden, a community gathering & event space, solar greenhouses (43k sq ft), & new farmer & agricultural technology incubation programs
- ◆ **Adaptation**
 - *Resilient IE Toolkit* – comprehensive document bridging the San Bernardino County and Western Riverside County Vulnerability Assessments, Adaptation Strategies, Hazard & Evacuation Maps, & Resilience Guidebook. Also led to the creation of the Inland Southern California Collaborative (ISC3)

→ Climate Action in the Region

- ◆ **Land Use**
 - *Map of Warehouse Growth (Redford Conservancy)* – animated map showing warehouse growth in Riverside & San Bernardino Counties from 1975-2021
- ◆ **Transportation**
 - *Coachella Valley (CV) Link* – 40-plus-mile bicycle, pedestrian, & low-speed electric vehicle pathway that is being built largely along the Whitewater River, extending from Palm Springs to Coachella
- ◆ **Transformative Climate Communities**
 - *Ontario Together* – development program that includes modern affordable housing, multimodal transportation, an urban greening program, an expansive rollout of solar energy, a small business incubator & workforce career training

→ Funding and Financing Climate Preparedness

- ◆ Planning and Implementation programs
- ◆ Best Practices for Grant Writing
- ◆ Grant Writing Assistance Programs within the Region



IMPACT

- Does it serve our target population?
- Does it have a clear impact?
- Do we have strong ties in the project community?
- Is the effort better with us than without?
- Would another organization be a better fit? If so, should we partner with them?

STRATEGIC

- Does it have the ability to be a landmark program / have a wow factor?
- Does it serve our mission?
- Is it strategic for future growth (or a one-off)?
- Is it multi-year?

WINNABILITY

- Can we meet the deliverables in a timely manner?
- Do we have the knowledge and ability in-house?
- How competitive are we?
- Do we want to work with this funder?

IMPACT ON THE ORGANIZATION

- Do we have the available staff time / capacity?
- Is there money that is worth the effort and from a reputable funder?
- Are we allowed to claim credit and advertise this project?
- Do we acquire new skills?
- How much effort does the application require?
- Will we get paid quickly and efficiently?

→ Get Involved-Next Steps

- ◆ Inland Southern California Climate Collaborative (ISC3)

→ Next Steps – in the case of a future version

- ◆ Identify county-specific impacts (such as impact on air quality) related to the logistics industry
- ◆ Reach out to CBOs to identify areas through which they can collaborate, share ideas, and help shape the next iteration of the report
- ◆ Provide an updated snapshot of federal, state, and private grant opportunities to support climate related projects
- ◆ Inclusion of California Public Utilities Commission (CPUC) Disadvantaged Vulnerable Communities (DVCs), which require special attention for climate adaptation purposes when utilities begin making
- ◆ Infrastructure, operations and services changes as part of their climate adaptation efforts
- ◆ Include land use and landscape. Noting conservation areas and land itself is important in discussing climate
- ◆ Water quality and supply

→ Anticipated release Fall 2022



THANK YOU!

For more information, please contact:

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