



# County of Los Angeles CHIEF EXECUTIVE OFFICE

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January 19, 2018

To: Supervisor Sheila Kuehl, Chair  
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Supervisor Janice Hahn  
Supervisor Kathryn Barger

From: Sachi A. Hamai  
Chief Executive Officer

## **REPORT ON IMPACT OF CLIMATE CHANGE AND EXTREME WEATHER (ITEM NO. 66-E, AGENDA OF DECEMBER 19, 2017)**

On December 19, 2017, the Board directed the Chief Executive Officer (CEO) and the Chief Sustainability Officer (CSO) in coordination with the Office of Emergency Management, Fire, Public Works, and Public Health to report on how climate impacts and extreme weather will be addressed in the Countywide Sustainability Plan (Plan). This report responds to that direction, incorporating information received from the key departments, and provides recommendations on an integrated approach while also providing a preview of the Plan's framework.

### **Background**

In the past year, Los Angeles County has experienced extreme heat, which when coupled with the region's past years of drought, creates conditions that places the region in the face of severe wildfire threats. Those threats often culminate in the types of wildfires that residents of Los Angeles County and neighboring counties contended with last year. Residents in burn areas not only faced wildfires, but then were susceptible to mudflows when denuded hillsides were no longer able to absorb precipitation or slow mudflows during rain events. Nearby, Santa Barbara and Ventura Counties faced the State's worst fire on record and, as of this publication, have lost over a dozen lives in the ensuing flooding and mudflows.

A UCLA study on the impacts of climate change on wildfires found a dramatic increase in the size of the area expected to be burned by wildfire by mid-century. In a business-as-usual climate scenario in which greenhouse gas emissions are not severely curtailed, the overall burn area for Santa Ana-related fires would increase 64 percent on average, and the overall area burned by non-Santa Ana-related fires would increase 77 percent on average. These modeled figures are driven by factors such as temperature increases and shifts in precipitation. These estimates demonstrate the urgency of comprehensively addressing climate impacts and establishing long-term goals, which the Plan will achieve.

### **Countywide Sustainability Plan Framework**

The Chief Sustainability Office is responsible for the development of the Plan. In November 2017, the CSO hosted a kickoff event for external stakeholders to provide input on the Plan's development. Prior to the kickoff, the CSO shared a draft framework with County departments and Board offices to receive feedback to initiate the Plan by coordinating with and building upon the previous work of County departments. Much of the cross-departmental coordination on the framework occurred through the County Sustainability Council, which the CSO chairs.

The guiding vision for the Plan is to create an aspirational, comprehensive, long-term, regional, and actionable path forward for the County. It will integrate environment, equity, and economy as the three co-equal principles of sustainability. The framework consists of ten chapters: water; energy; climate (both mitigation and adaptation); air quality; public health and well-being; land use and transportation; resource recovery and waste management; economy and workforce development; housing; and open space, recreation, habitat, and biodiversity (not listed in order of significance).

The structure for the Plan will be made up of the following:

- Each chapter will consist of specific measurable goals;
- To measure progress towards meeting those goals, each chapter will include quantitative indicators;
- To outline approaches to achieve the goals of each chapter, the Plan will identify key implementation strategies;
- To build accountability into the Plan, the CSO will deliver ongoing monitoring and reporting on the indicators to provide transparency about progress towards meeting the Plan goals, including creating a public dashboard; and
- Each chapter's goals, indicators, and strategies will weave in equity and resilience as core principles.

One of the most significant ways that the Plan will address climate impacts and extreme weather will be through its approach to equity and resilience.

**Addressing Climate Impacts in the Plan**

The climate chapter of the Plan will include a comprehensive update of the County’s climate action plans (municipal and community) which were focused on actions to mitigate greenhouse gas emissions. The update will address mitigation efforts, but will also address climate adaptation in recognition that historic greenhouse gas emissions will result in significant impacts to our communities even if future emissions are curtailed.

Given the pervasive nature of climate impacts, the climate chapter will not be the only place within the Plan where climate impacts will be discussed. The matrix below identifies a sample of the relevant climate impacts facing Los Angeles County and then indicates which chapters of the Plan will likely address those impacts. This draft analysis will be refined throughout the Plan development process with additional stakeholder and expert input. In response to this motion, the CSO sought assessments from the departments of Public Works, Public Health, Fire, and the Office of Emergency Management to help identify potential impacts. Their responses to the CSO will be incorporated into the Plan.

		<i>Sample Climate Impact</i>				
		Extreme Heat	Precipitation	Decreasing Snowpack	Sea Level Rise	Wildfire
<b>Plan Topic</b>	Water		x	x	x	x
	Energy	x				
	Climate	x	x	x	x	x
	Air Quality	x	x			x
	Land Use & Transportation	x				x
	Open Space, Recreation, Habitat & Biodiversity	x	x	x	x	x
	Resource Recovery & Waste Management		x			x
	Public Health & Well-Being	x	x			x
	Economy & Workforce Development				x	x
	Housing	x			x	x

### **Coordination and Partnerships**

Fully addressing and charting a path towards a more resilient Los Angeles County will entail a substantial focus on coordination and partnerships. The County Sustainability Council, chaired by the CSO, will serve as the main vehicle for that coordination at the staff and department head level.

Given that climate impacts do not respect jurisdictional boundaries, the Plan will be structured in a way that will serve as a template for cities and other government agencies throughout the County. Doing so will allow a consistent language and ongoing data collection for working toward shared goals among local governments.

In addition to local governments, unique partnerships with entities such as non-profits, regional agencies, State Government, and Federal Government should be, and are being, pursued. Other governments are also taking this approach of new types of partnerships to address climate impacts. Since 2005, the State has issued period scientific reports related to potential impacts of climate change which were largely led by academic researchers. For its upcoming report, the State has not only engaged academic institutions, but also asked practitioners, like local governments, to join as co-authors. The CSO will serve as a co-author of the Fourth Assessment's Los Angeles region chapter, which is scheduled to be released in August 2018.

As another example of opportunities to partner with other types of non-governmental organizations to address climate impacts, the CSO is actively pursuing approaches to conduct a climate vulnerability assessment to identify approaches for integrating a climate vulnerability assessment in a way that engages external stakeholders and other local governments within the County. Information from that assessment would be integrated into the Plan. Thus far, the CSO has explored partnering with local academic institutions and with a national affordable housing non-profit organization that supports local community organizations to develop this vulnerability assessment.

### **Datasets and Resources**

The Plan will include a substantial data collection process and will make use of many existing resources. Two examples of data sources related to climate impacts include prior analysis by the departments of Public Works, Public Health, Fire, Beaches and Harbors, Regional Planning, and Animal Care and Control. Those departments have submitted individual memos with details on wildfire climate impacts and their respective recommendations. The data and strategies in those previous reports will be a valuable resource as the CSO addresses climate impacts and extreme weather into the Plan.

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Those reports relied upon the research of UCLA Professor Alex Hall who downscaled global climate models to provide predicted impacts of climate change down to the zip code scale in Los Angeles.

At the State level, California's Cal-Adapt tool serves as a datahub for an extensive set of data sources on climate impacts, climate adaption, and climate resilience. The CSO also anticipates using this tool as a key source for data.

### **Conclusion**

The CSO and the departments will continue to collaborate throughout the development of the Plan to ensure that climate impacts are thoroughly considered and resilience in the region's response to those impacts are prioritized.

SAH:JJ:FAD  
GG:KTP:jg

c: Executive Office, Board of Supervisors  
Fire  
Health Agency  
Office of Emergency Management  
Public Health  
Public Works