

City of Santa Barbara's LCP Update Sea Level Rise Coordination

One of the conditions of the Round 1 California Coastal Commission Local Coastal Program Local Assistance Grant Funds awarded to the City was regional coordination of sea level rise (SLR) work between other jurisdictions and entities working on SLR including early coordination meetings, sharing technical analyses and lessons learned, and consideration of regional adaptation policies. This coordination continues and includes the following ongoing activities:

Bren School of Environmental Science and Management

Bren Master's Students were contracted to prepare a City of Santa Barbara Sea Level Rise Vulnerability Assessment as part of the LCP Update. Their study included hazards modeling, vulnerability assessments, and preliminary adaptation strategies. The student team presented final results to City staff, LCP Update Subcommittee Members, and other stakeholders in May 2015. In addition to direct contact with students on a regular basis, participation included the following meetings and document review:

- *Client Advisor Meeting April 2014*
- *Work Plan Review Spring 2014*
- *Spring Review Meeting May 2014*
- *Fall Progress Review Meeting November 2014*
- *Draft SLR Vulnerability Assessment Review February 2015*
- *Final SLR Vulnerability Assessment Review March 2015*
- *Student Presentation to staff and stakeholders May 2015*

Project Brief:

http://www.bren.ucsb.edu/research/2015Group_Projects/documents/SeaLevelRiseSB_Brief.pdf

Santa Barbara County Coastal Resiliency Project

This project modeled sea level rise and other coastal hazards for the entire County and resulted in a Sea Level Rise & Coastal Hazards Vulnerability Assessment. The City is a partner in this project along with the Cities of Goleta and Carpinteria. County staff provided a briefing on the project to the County and Montecito Planning in December 2017. Participation includes the following meetings:

- *Kick-off Meeting for SLR Modeling and Regional GIS Needs July 2014*
- *Initial Results Workshop February 2015*
- *Modeling Extension Conference Call February 2015*
- *Review of draft Coastal Hazard modeling results May- June 2015*
- *Review of draft Coastal Resilience web content and technical methods report June-July 2015*
- *Final Hazard Results and Vulnerability Assessment Workshop August 2015*
- *Stakeholder meeting May 2016*
- *Stakeholder meeting September 2016*
- *Attendance at the County's Sea Level Rise and Coastal Hazards Vulnerability Assessment Workshop August 2017*

Project Webpage:

<http://longrange.sbcountyplanning.org/programs/Coastal%20Resiliency%20Project/coastalresiliency.php>

City of Goleta Local Coastal Program Project

Goleta received a CCC LCP Grant to prepare the City's LCP for CCC certification. The project includes analysis of the portion of the City located in the Coastal Zone and development of related policies. Technical studies in support of the project include a Backshore Characterization and Initial Vulnerability Findings for the City's Coastal Zone. The City's LCP Update team shared resources with Goleta since both jurisdictions received LCP grants from the CCC at the same time. Participation included the following meetings and products:

- *Review of the draft Backshore Characterization and Initial Vulnerability Findings January 2015*
- *Met with Goleta staff to share analyses and exchange information March 2015*
- *Review of draft Sea Level Rise Land Use Plan policies March 2015*
- *Attended Vulnerability Assessment workshop organized by City of Goleta for Santa Barbara County and cities of Goleta, Santa Barbara, and Carpinteria*
- *Attended Public Workshop of draft findings of coastal hazards August 2015*

Project webpage: <http://www.cityofgoleta.org/projects-programs/studies-and-other-projects/local-coastal-program-project>

Goleta Slough Ecosystem Management Plan (GSEMP) Update and Sea Level Rise Report

The Goleta Slough Management Committee prepared an update to the GSEMP including a sea level rise and vulnerability strategy. City Airport staff members are primarily engaged in this effort but an LCP Update Team member participated while the report was in a draft phase, including the following:

- *Review and provide comments on draft GSEMP Update and Sea Level Rise Report October 2014*
- *Review of final draft GSEMP and Sea Level Rise Report*
- *Attend GSMC monthly meetings March – May 2015*

Project webpage: <http://goletaslough.org/>

Association of Environmental Professionals State Conference

In March 2015, an LCP Update team member participated in a panel on *A Regional Approach to Planning for Climate Impacts in Coastal Southern California*. Other participants were the County of Santa Barbara, the cities of Goleta and Carpinteria, and Sea Grant California and USC partners.

Santa Barbara Area Coastal Ecosystem Vulnerability Assessment (SBA CEVA)

This is a collaborative effort between California Sea Grant, UCSB's Santa Barbara Coastal Long-Term Ecological Research Program, Scripps Institution of Oceanography, and the USGS Coastal Storm Modeling system (CoSMos, see below). The City is a project partner along with the cities of Goleta and Carpinteria, and Santa Barbara County. This project conducted a

coastal ecosystem vulnerability assessment to inform local land use decisions and the final report was published in July 2017. Participation included the following:

- *CEVA workshop on beaches October 2014*
- *Introductory emails, input on deliverables, and conference call coordination, January– March 2015*
- *CEVA workshop on wetlands April 2015*
- *CEVA public outreach discussion August 2015*
- *CEVA meeting on climate data and GIS October 2015*
- *CEVA workshop on watersheds December 2015*
- *CEVA workshop on beach vulnerability May 2016*
- *City staff review of CEVA draft report April 2017*
- *CEVA final workshop April 2017*
- *City staff input on final draft CEVA report May 2017*

Project webpage: <http://www.msi.ucsb.edu/current-projects/santa-barbara-area-coastal-ecosystem-vulnerability-assessment>

USC Sea Grant Southern California Coastal Impacts Project/USGS CoSMoS Model

USC Sea Grant works with local and state governments to help coastal managers adapt to the impacts of climate change. Specifically, they are providing technical assistance and outreach on the USGS Coastal Storm Modeling System (CoSMoS). This Southern California specific (including Santa Barbara) multi-agency collaboration project projects coastal flooding and erosion driven by climate change, not only from sea level rise but from future storm events.

They also provide informational webinars and held a Santa Barbara-Ventura Regional Sea Level Rise & Coastal Impacts Planning Workshop. The LCP Team participated in planning for a CoSMoS workshop specifically for City of Santa Barbara staff and in the following other events:

- *AdaptLA Webinar, Envisioning Future Sea Level Rise Impacts Through King Tides & Storms January 2015*
- *AdaptLA Webinar, Why Beaches Matter: Beach Dynamics & Ecology in Southern California March 2015*
- *Santa Barbara-Ventura Regional Sea Level Rise & Coastal Impacts Planning workshop April 2015*
- *CoSMoS Results Webinar February 2016*
- *Communicating CoSMoS and Climate Resilience in Ventura and Santa Barbara workshop June 2017*
- *CoSMoS City of Santa Barbara workshop June 2017*

Project webpage: <http://dornsife.usc.edu/uscseagrant/>

Project webpage: https://walrus.wr.usgs.gov/coastal_processes/cosmos/socal2.0/index.html

CoSMoS results webpage: <http://data.pointblue.org/apps/ocof/cms/index.php?page=flood-map>

State Coastal Conservancy

A local staff member from the State Coastal Conservancy is coordinating climate change adaptation planning efforts in the region and serving as the liaison for the USC Sea Grant and CoSMoS efforts. Participation with Coastal Conservancy staff includes:

- *Coastal Climate Change and Sea Level Rise Adaptation Planning Coordination Workshop June 2014*

Stanford Center for Ocean Solutions

Stanford's Climate Adaptation team is engaging with coastal counties on incorporating the role of natural habitats into climate adaptation planning through LCP updates. They began a Coastal Adaptation Network to share requests, resources, and recommendations on best practices for LCP Updates. Participation includes:

- *Interview by the Stanford Law School to understand strategies local authorities are using to address natural coastal hazards February 2015*
- *LCP Update Team members signed up for the Coastal Adaptation Network*
- *Meeting with an attorney from Stanford March 2015*
- *Meeting with Center for Ocean Solutions staff May 2017*

Project webpage: <http://www.centerforoceansolutions.org/>

California Coastal Resilience Network - The Nature Conservancy

The Nature Conservancy (TNC) is identifying ways to improve communication between State agencies and local efforts for coastal adaptation through the LCP Update process. TNC is also hosting the Coastal Resilience mapping portal for Santa Barbara County showing interactive maps of flood and sea level rise. Participation includes:

- *Coastal Agency Engagement conference call March 2015*
- *CCC Sea Level Rise policy guidance document webinar June 2015*
- *Transportation and Coastal Habitats Squeeze webinar July 2015*
- *Economics of Coastal Climate Change Adaptation webinar November 2015*
- *Social Vulnerability & Demographics in Coastal Adaptation webinar June 2016*
- *Economics of Nature-Based Adaptation webinar November 2016*
- *SLR Planning in Imperial Beach webinar March 2017*
- *Legislative Update webinar April 2017*
- *Model Ordinance Toolkit for Local Governments webinar June 2017*
- *Weigh in on CA SLR Guidance Update webinar July 2017*
- *Public Trust Doctrine, Coastal Land Use, and Sea Level Rise webinar August 2017*
- *Engaging marginalized groups webinar November 2017*
- *Natural Infrastructure Case Studies webinar December 2017*

TNC's Coastal Resilience website: <http://coastalresilience.org/>

City staff is also monitoring the following:

- *FEMA Open Pacific Coast Study – Translating Coastal Analysis Results into Floodplain Maps webinar July 2015*
- *FEMA Coastal Flood Risk Products webinar June 2016*

FEMA website: <http://www.r9map.org/Pages/CCamp-Main.aspx/>