



February 3, 2014

Mr. Charles Lester
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Comments on California's draft Sea-Level Rise Policy Guidance from NOAA's Office of Ocean and Coastal Resource Management and Coastal Services Center

Dear Mr. Lester,

Thank you for providing NOAA staff with a personal briefing on the draft Sea-Level Rise Policy Guidance on December 9, 2013, and for the opportunity to submit formal comments.

NOAA's Office of Ocean and Coastal Resource Management and Coastal Services Center applaud the Coastal Commission's proactive approach to ensuring resilient shorelines and coastal communities. NOAA recognizes the Commission's long-standing quest to face climate change impacts with the best available science and decision making tools. The landmark Sea-Level Rise Policy Guidance is of critical importance in this endeavor in terms of helping human and natural communities adapt and thrive.

The draft policy guidance aligns with priorities under the Coastal Zone Management Act as well the strategic plan developed by these two NOAA offices. Each of these documents notes the need to increase community understanding of risk and reduce community vulnerability. The Commission's policy guidance also directly aligns with the President's recent executive order on climate preparedness because Local Coastal Programs are a primary mechanism for adaptation in California and are required by the California Coastal Act. The policy guidance may also support the Presidential Task Force on Climate Preparedness and Resilience, a task force which includes Governor Brown and local officials from coastal California districts.

NOAA reviewers collectively found the draft policy guidance well-written, intuitively organized, and thorough. Specific edits regarding resources in the guidance document and suggestions to improve clarity are attached to this letter for your consideration. Our general comments are outlined below:

- We appreciate the obvious connections to the Coastal Commission's recently updated strategic plan as well as your FY12 Project of Special Merit described on pages 88 and 90, respectively. When developing new guidance such as this, building from existing work and priorities within the coastal program is important.
- We suggest considering the addition of a bullet under "additional items" on pp. 90-91 related to local government and Coastal Commission staff capacity to interpret and review the climate information submitted via coastal development permits. Once local

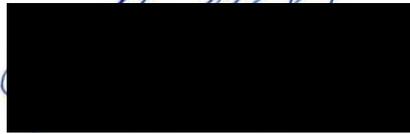
jurisdictions incorporate sea-level rise considerations into their local coastal programs, there may be a new need for local and state planners to understand how to review this information and ensure sea level rise is appropriately and accurately considered in project design.

- We note on page 91 a reference to living shorelines. Our offices host a regular webinar series on this topic, and archived webinars are available. NOAA also has a cross-office team who collaborates and shares information on living shorelines. If additional information or support on this topic is needed, please let us know.
- We understand that the Commission's first and foremost goal is preserving coastal resources. The economics of sea level rise (both the cost of impacts and the cost of mitigation measures) remain a top concern of local municipalities. In addition to citing the Project of Special Merit on page 90, you may wish to consider mentioning economic cost and benefit analyses, tools, and data sources as a starting place for evaluating scenarios and costs. Economic guidance resources could be added to the appendices. One possible resource is the report, "What Will Adaptation Cost? An Economic Framework for Coastal Community Infrastructure," released by the NOAA Coastal Services Center in June 2013.
- While we recognize that the Commission's coastal management program authorities are unique, at your request we could share information on other coastal programs' approaches and efforts if the guidance document authors deem that information to be helpful.
- Last and most critically, the document and Commission staff state that the guidance will not be an enforceable policy of the California Coastal Management Program, will not be submitted to NOAA as a program change under the Coastal Zone Management Act, and will not be used for federal consistency purposes. However, the sub-heading on page 22 asserts that sea-level rise will be integrated "into all appropriate coastal management and decision-making processes, including... federal consistency decisions." In the document, please clarify this potential discrepancy. We would also like to discuss this issue with you before the guidance is finalized to make sure we have the same understanding.

We are pleased to support ongoing collaborative work with the Commission on climate change and adaptation-related endeavors. Investment beyond planning is needed, as local, state, and federal government agencies ascertain ways to implement and fund adaptation responses. Where possible, our office would like to offer technical assistance support and identify funding opportunities to support training, workshops, and outreach on the final policy guidance and the NOAA resources identified therein. In this way we not only maintain a collaborative relationship with the Coastal Commission, but are responsive to the President's Executive Order for agencies to support climate-resilient investments by states and local communities through guidance, grants, and technical assistance. To that end, we look forward to engaging with you and assisting in these efforts as best we can.

Acting NOAA Administrator Dr. Sullivan says the only way to truly accomplish adaptation is to empower local governments. To that end, we applaud your efforts to support coastal communities across California in pursuing a resilient shoreline. Thank you again for the opportunity to comment.

Sincerely,



Rebecca A. Smyth
West Coast Director



Joelle Gore
Acting Chief, Stewardship Division

NOAA Coastal Services Center and Office of Ocean and Coastal Resource Management

Comments and edits on resources throughout the document

- Thank you for repeatedly referencing the NOAA Sea Level Rise and Coastal Flooding Impacts Viewer throughout the document. In the detailed suggestions below we highlight instances where the name of the tool should be corrected in the text.
- Consider pursuing consistency in how the Resource table columns are populated. For instance, the "Resource" columns could contain the name and title of the specific listing, while "Source" provides the sponsor/developer/author followed by the URL. Several tables are already formatted in this way (e.g., Table 11, pg 130).
- Any reference to NOAA data (e.g., LiDAR) that resides in the Digital Coast can only link to the data registry. Unfortunately, it is not currently possible to link directly to the distinct data set, as it requires users to search the Data Registry using the appropriate filters and/or search criteria (i.e., elevation, California, LiDAR). Instances we found where the link should be corrected in the text are listed in the detailed suggestions below.

1. **Page 41, Table 4.** We suggest two changes:

- The name for the NOAA tool should be: "NOAA Sea Level Rise and Coastal Flooding Impacts Viewer"
- Under the "Source" column, we suggest putting the name of the sponsoring/developing organization along with the URL (i.e., NOAA Coastal Services Center, <http://csc.noaa.gov/digitalcoast/srviewer>). This is similar to the format used in Table 13 (pg 139).

2. **Page 130, Table 11.** We suggest three changes:

- The "Specifics of Information" column needs bullets or punctuation between entries
- Under the LiDAR entry, the "Source" should be listed as "NOAA's Digital Coast, <http://csc.noaa.gov/dataregistry/>"
- Change "NOAA Sea Level Rise Viewer" to "NOAA Sea Level Rise and Coastal Flooding Impacts Viewer"

3. **Page 134, Table 12.** We suggest two changes:

- Change "NOAA Digital Coast Sea Level Rise Viewer" to "NOAA Sea Level Rise and Coastal Flooding Impacts Viewer"
- Change "Source" entry for the Viewer to "NOAA's Digital Coast, <http://csc.noaa.gov/digitalcoast/tools/srviewer>"

4. **Page 139-140, Table 13.** We suggest two changes:

- Under the LIDAR entry, the "Source" should be listed as " NOAA's Digital Coast, <http://csc.noaa.gov/dataregistry/>"
- We are not sure what the "Beach Profiles and Surveys" is referring to. The link provided is no longer valid and the description appears incomplete.

5. **Page 161, Table 14.** The reference for "Scanning the Conservation Horizon" is incorrect. It should be "Glick, Stein and Edelson, editors, 2011".

6. **Page 164, Table 25.** Consider adding Digital Coast as another entry.

Suggestions for document clarity

- Chapter IV provides a step-by-step process for addressing sea-level rise in local coastal programs and Chapter V provides a step-by-step process for addressing sea level rise in coastal development permits. The reader may benefit if the format for describing the steps was standardized for both chapters. For example:
 - Each step could follow a format using similar bullets or numbered lists throughout. Step 4 in Chapter IV provides an example of how this could be done or copied in other chapters. Each sub-step follows the same format and uses the same type of bullets (in this instance, check marks). Appendix C also provides an example of how formatting can be standardized (in this instance, providing a narrative, bulleted list, and tables).
 - Each step could include a text box at the beginning that has the very basic summary of that step, summary of sub-steps, or a simple checklist for that step.
 - Chapter IV includes a simplified flowchart at the beginning of the chapter on page 38. Chapter V could also include a simplified flowchart taken from the more detailed flowchart on page 81.
 - Each chapter includes a color-coded flowchart at the end. The enumerated step headings could be colored to match the boxes highlighting each step.
- **Page 19:** The sentence providing examples of state agency policies and guidance on sea-level rise is long. Using a bulleted list may break up the examples and make it easier to follow.

“For example: The San Francisco Bay Conservation and Development Commission (BCDC) amended the San Francisco Bay Plan to update its policies regarding sea-level rise; the California State Coastal Conservancy (Conservancy) established climate change policies, application guidelines for sea-level rise, and climate ready principles; and the California Department of Transportation (CalTrans) developed guidance on incorporating sea-level rise into the planning and development of Project Initiation Documents, and is in the process of developing “hot spot” vulnerability assessment of transportation infrastructure at risk from sea-level rise.”

- **Page 22:** It is unclear from the introduction in Section 2, Principles for Addressing Sea-Level Rise in the Coastal Zone, whether there are four primary principles with sub principles or 17 principles that fall under common headings.
- **Page 26:** *“Planning and project development should evaluate the societal and ecosystem service benefits of coastal resources at risk from sea-level rise or actions to prepare for sea-level rise.”*

It may be helpful if societal service benefits and ecosystem service benefits were defined in the glossary.

- **Page 28:** *“This chapter includes:
A) Sea-level rise background information and a description of the best available science on the subject
B) Sea-level rise impacts to coastal areas
C) Implications of sea-level rise for coastal resources”*

It could be helpful if the topics B and C listed at the top of page 28 were more consistent with the wording found in the headers of pages 30 and 32.