

## **Proposed Resolution of the California Ocean Protection Council on Sea-Level Rise**

**March 11, 2011**

WHEREAS, numerous peer-reviewed scientific studies and exhaustive research have determined that sea-level rise (SLR) due to climate change will have a dramatic impact on coastal development and natural resources and will pose significant planning challenges; and

WHEREAS, research funded in part by the Ocean Protection Council (OPC) has shown that a 55-inch sea-level rise, with a 100-year storm event along the California coast places approximately 480,000 people (given today's population) and nearly \$100 billion (in year 2000 dollars) of property at risk; and

WHEREAS, Governor's Executive Order S-13-08 directed state agencies to consider a range of SLR scenarios for the years 2050 and 2100 to assess project vulnerability, reduce expected risks, and increase resiliency to sea-level rise; and

WHEREAS, senior staff from 16 state agencies of the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT) reached agreement on a Sea-Level Rise Interim Guidance Document ("Interim Guidance Document"), with science-based input from the OPC's Science Advisory Team and the California Ocean Science Trust.

NOW, THEREFORE, the California Ocean Protection Council hereby

RESOLVES that the pollutants that cause climate change should be reduced early in this century in order to limit the amount of damage from SLR that will occur as a result of rising temperatures; and

FURTHER RESOLVES that state agencies, as well as non-state entities implementing projects or programs funded by the state or on state property, including on lands granted by the Legislature, should incorporate consideration of the risks posed by SLR into all decisions regarding areas or programs potentially affected by SLR; and

FURTHER RESOLVES that state agencies should carefully invest public funds and incentivize SLR risk reduction by following the recommendations within this resolution when providing funding to non-state entities, to the extent permissible by law; and

FURTHER RESOLVES that state agencies, as well as non-state entities implementing projects or programs funded by the state or on state property, including on lands granted by the Legislature, should follow the science-based recommendations developed by the CO-CAT, which are currently described in the Interim Guidance Document (including the projections in Table 1 below) and which will be revised in future guidance documents developed by the CO-CAT<sup>1</sup>; and

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<sup>1</sup> Refer to the OPC website at [www.opc.ca.gov](http://www.opc.ca.gov) for the latest guidance document.

March 11, 2011

FURTHER RESOLVES that the OPC will provide ongoing coordination with the OPC Science Advisory Team and the CO-CAT to support regular updates to guidance on SLR for state agencies based upon current scientific understanding and projections, including consideration of (1) observed ice melt and predictions of future catastrophic ice melting, (2) current atmospheric concentrations of the pollutants that cause climate change, (3) relevant feedback mechanisms and (4) assessment of the status of international efforts to reduce the pollutants that cause climate change and the likelihood of achieving different future emission scenarios; and

FURTHER RESOLVES that, state agencies, as well as non-state entities implementing projects or programs funded by the state or on state property, including on lands granted by the Legislature, should not solely use SLR values within the lower third of the range in the latest CO-CAT guidance document, and instead should generally assess potential impacts and vulnerabilities over a range of SLR projections, including analysis of the highest SLR values presented in the latest CO-CAT guidance document ; and

FURTHER RESOLVES that state agencies, as well as non-state entities implementing projects or programs funded by the state or on state property, including on lands granted by the Legislature, should avoid making decisions based on SLR values that would result in high risk; and

FURTHER RESOLVES that state agencies, as well as non-state entities implementing projects or programs funded by the state or on state property, including on lands granted by the Legislature, should coordinate with one another when selecting values of SLR and use the same baseline projections of SLR for the same project or program, with agency discretion to use higher projections and apply a safety factor as necessary; and

FURTHER RESOLVES that state agencies should make decisions regarding coastal and ocean management based upon the following guiding principles presented in the 2009 California Climate Adaptation Strategy (Adaptation Strategy):

- California must protect public health and safety and critical infrastructure;
- California must protect, restore, and enhance ocean and coastal ecosystems, on which our economy and well being depend;
- California must ensure public access to coastal areas and protect beaches, natural shoreline, and park and recreational resources;
- New development and communities must be planned and designed for long-term sustainability in the face of climate change;
- California must look for ways to facilitate adaptation of existing development and communities to reduce their vulnerability to climate change impacts over time; and
- California must begin now to adapt to the impacts of climate change. We can no longer act as if nothing is changing; and

March 11, 2011

FURTHER RESOLVES that state agencies should bring renewed efforts to implement the state planning priorities from CA Government Code Section 65041.1 and the recommendations presented in the Adaptation Strategy; and

FURTHER RESOLVES that the OPC, in close coordination with state agencies, will engage in a public stakeholder process to develop decision guidance to clarify and expand upon the Adaptation Strategy and to identify actions that the state and the OPC can take to address the areas of greatest need regarding coastal and ocean climate change adaptation; and

FURTHER RESOLVES that the OPC will support the development of regional sea-level rise adaptation plans, to the extent that funding and staff capacity allow; and

FURTHER RESOLVES that the OPC will encourage collaborations, including with the federal government, to enhance data collection and monitoring and development of decision support tools and guidance that will directly improve adaptation decision-making, including those predicting extreme events and supporting coastal and ocean climate change impact assessments; and

FURTHER RESOLVES that the OPC will continue to support the development and application of common climate change modeling assumptions so that planning actions in different agencies are based on shared information and current scientific understanding to the greatest extent possible.

**Table 1. Sea-Level Rise Projections<sup>2,3</sup> using 2000 as the Baseline<sup>4</sup>**

Year		Average of Models	Range of Models
2030		7 in (18 cm)	5-8 in (13-21 cm)
2050		14 in (36 cm)	10-17 in (26-43 cm)
2070	Low	23 in (59 cm)	17-27 in (43-70 cm)
	Medium	24 in (62 cm)	18-29 in (46-74 cm)
	High	27 in (69 cm)	20-32 in (51-81 cm)
2100	Low	40 in (101 cm)	31-50 in (78-128 cm)
	Medium	47 in (121 cm)	37-60 in (95-152 cm)
	High	55 in (140 cm)	43-69 in (110-176 cm)

<sup>2</sup> Based upon the SLR estimates presented in Martin Vermeer and Stefan Rahmstorf, "Global sea level linked to global temperature", *Proceedings of the National Academy of Sciences*, published online before print December 7, 2009; doi: 10.1073/pnas.0907765106.

<sup>3</sup> For dates after 2050, Table 1 includes three different values for SLR - based on low, medium, and high greenhouse gas emission scenarios. These values are based on the Intergovernmental Panel on Climate Change emission scenarios as follows: B1 for the low projections, A2 for the medium projections and A1Fi for the high projections.

<sup>4</sup> These values are based on the October 2010 version of the SLR Interim Guidance Document. For future reference, check the OPC website at [www.opc.ca.gov](http://www.opc.ca.gov) to see if there is an updated guidance document that has been developed by the CO-CAT.