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Humboldt
Baykeeper

May 17, 2010

Inland Empire
Waterkeeper

Interagency Climate Change Adaptation Task Force

Submitted online at www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation/submit.

Klamath
Riverkeeper

RE: Progress Report of the Interagency Climate Change Adaptation Task Force

Monterey
Coastkeeper

Dear Members of the Interagency Climate Change Adaptation Task Force:

Orange County
Coastkeeper

The California Coastkeeper Alliance (Alliance) represents 12 Waterkeeper organizations safeguarding the coast from the Oregon border to San Diego. The Alliance and its member Waterkeepers work daily to protect and enhance healthy marine habitats and coastal watersheds throughout the state, for the benefit of Californians and California ecosystems. On behalf of the Alliance, I am pleased to submit these comments on the “Interim Progress Report of the Interagency Climate Change Adaptation Task Force” released on March 16, 2010 (Progress Report).¹

Russian
Riverkeeper

San Diego
Coastkeeper

San Francisco
Baykeeper

The Alliance strongly supports the work of the Interagency Climate Change Adaptation Task Force (Task Force) to develop recommendations for adapting to climate change impacts. We particularly commend the Task Force for establishing a goal of “resilient” natural and human systems, and recognizing both the challenges and the opportunities presented by climate change. The Task Force’s development of a science-based, specific, and well-funded national climate adaptation policy could significantly improve California’s ability to develop strong adaptation policies. The next year is a critical time in the development of adaptation strategies as agencies consider the objectives and actions identified in the 2009 California Climate Adaptation Strategy² to manage climate impacts to our coastline, to fish and wildlife, and to water quality and water supply.

San Luis Obispo
Coastkeeper

Santa Barbara
Channelkeeper

Santa Monica
Baykeeper

With support for the framework identified in the Progress Report, we respectfully request that the Task Force consider the following additions:

- Prioritize the work of the Coasts and Oceans Workgroup to address projected inundation from sea level rise and other climate-driven changes; and
- Identify significant sources of funding to support the implementation of adaptation strategies, particularly for immediate needs such as revising coastal planning documents.

Ventura
Coastkeeper

¹ Climate Change Adaptation Task Force, “Interim Progress Report of the Interagency Climate Change Adaptation Task Force,” (March 16, 2010), (Federal Progress Report).

² The California Climate Adaptation Strategy, released in December 2009, summarizes the best known science on climate change impacts in California and outlines possible solutions that can be implemented within and across state agencies to promote resiliency. California Natural Resources Agency, “2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2006,” (CA Climate Adaptation Strategy), available at www.climatechange.ca.gov/adaptation.

PRIORITIZE THE WORK OF THE COASTS AND OCEANS WORKGROUP TO ADDRESS PROJECTED INUNDATION FROM SEA LEVEL RISE AND OTHER CLIMATE-DRIVEN CHANGES.

The Progress Report states that it will be critical to identify priority areas for a coordinated government response in light of limited resources and multiple climate change impacts, and appropriately identifies water resource management as a priority issue.³ The Task Force has created a Coasts and Oceans Workgroup to “develop recommendations to strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification,” but has not recognized this work as a priority issue.⁴ Given the immediacy and gravity of ocean and coastal climate change impacts facing California and other coastal states, we respectfully request that the Task Force additionally recognize “Coasts and Oceans” as a priority area for coordinated government response under the fourth “Prioritization” element.

California’s coastal areas will experience a variety of impacts stemming from three principal climate-driven changes: increased temperature, precipitation changes, and sea level rise. Scientists estimate that sea level has risen seven inches since 1900, and is projected to rise 12-18 inches by 2050 and 21-55 inches by 2100.⁵ Extreme weather events like storm surges and wildfires will make these impacts more severe. Large numbers of people and extensive infrastructure will be at risk from inundation during coastal storms as higher sea levels, high tides, storm surges, and inland flooding coincide.⁶ Projected inundation will impact water supply canals, wastewater treatment plants, and power plants throughout California.⁷ Increasing rates of coastal erosion, beach loss, salinity intrusion into estuaries, and saltwater intrusion into groundwater are also projected.⁸

Decisions about how to deal with rising sea level, inundation, and associated impacts will have a profound impact on the future of the California Coast, and on coastal areas across the country. Coastal managers and policymakers will consider environmentally-destructive strategies such as coastal armoring and inappropriate beach nourishment, and more sustainable, “soft” protection solutions such as barrier beaches and wetlands.⁹ If structural methodologies, such as sea walls and levees, become the default approach to deal with sea level rise, it would significantly alter the functioning of coastal habitats, which could in turn decrease the overall adaptive capacity of coastal ecosystems. Ten percent of California’s coast has already been armored, or hardened, including 33% of coastal areas in the four most southerly counties.¹⁰ Alternatively, with adequate time, data, and resources, coastal managers could pursue adaptation strategies which both protect coastal areas from sea level rise *and* benefit coastal ecosystems. One example of this type of “no-regrets” strategy is preservation of natural areas that contain critical habitat for tidal wetland restoration, habitat migration, or buffer zones.¹¹

In addition to sea-level rise and associated impacts, California’s coast and ocean are experiencing dramatic changes such as ocean acidification, warming, and changes to freshwater inputs. The ocean and dependent marine life are of prime importance to California, and to coastal communities and economies across the

³ Federal Progress Report at p. 3.

⁴ See Task Force Website at <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>.

⁵ California Climate Change Center, Climate Change Scenarios and Sea Level Rise Estimates for the California 2008 Climate Change Scenarios Assessment (Draft Paper), available at www.energy.ca.gov/2009publications/CEC-500-2009-014/CEC-500-2009-014-D.PDF.

⁶ See California Climate Change Center, “The Impacts of Sea-Level Rise on the California Coast,” (May 2009), available at www.pacinst.org/reports/sea_level_rise/report.pdf; CA Climate Adaptation Strategy at p. 68.

⁷ CA Climate Adaptation Strategy at p. 65.

⁸ CA Climate Adaptation Strategy at p. 69.

⁹ CA Climate Adaptation Strategy at p. 75.

¹⁰ CA Climate Adaptation Strategy at p. 70.

¹¹ See CA Climate Adaptation Strategy at p. 74.

country. California's ocean-dependent economy generates an estimated \$46 billion per year.¹² California invests heavily in a healthy ocean, engaging in an exhaustive multi-stakeholder process and spending an estimated \$60 million over five years to designate networks of marine protected areas along the California Coast.¹³ The State is projected to spend an additional \$24 million every year to manage these marine protected areas.¹⁴ But these investments are threatened by climate-driven changes such as ocean acidification, particularly if no preparations are made to adjust coastal and ocean management practices.

Approximately 85% of California's residents live or work along bay or coastal areas and are facing sea level rise without the means to adjust to expected impacts.¹⁵ The sizeable recreational and commercial fish and shellfish industry, and wildlife managers, are similarly at risk without the tools to respond to ocean acidification, warming, and other changes to ocean chemistry. California's coastal communities and ocean-dependent economy—as well as coastal communities and economies throughout the United States—need the sufficient time, resources, and data to consider the wide range of responses to climate-driven changes, and the opportunity to pursue strategies that will enhance the resilience and natural adaptive capacity of coastal and ocean ecosystems. We respectfully request that the Task Force designate “Coasts and Oceans” as a priority work area.

IDENTIFY SIGNIFICANT SOURCES OF FUNDING TO SUPPORT THE IMPLEMENTATION OF ADAPTATION STRATEGIES, PARTICULARLY FOR IMMEDIATE NEEDS SUCH AS REVISING COASTAL PLANNING DOCUMENTS.

The Task Force could greatly enhance the ability of California and other states to implement much-needed adaptation strategies by ensuring that a national strategy includes both immediate and long-term funding elements. Federal funding is critical to support regional, state, and local efforts to conduct detailed vulnerability assessments, identify climate change impacts, and develop and implement plans to deal with projected impacts.

Funding is immediately needed for coastal states impacted by sea level rise and other climate-driven changes in the coastal corridor. Projected sea level rise, compounded by shifting precipitation and extreme weather events, will impact an estimated 480,000 residents and at least \$100 billion in property throughout California.¹⁶ If California does not take action to mitigate sea level rise impacts and other projected climate impacts, the costs will be crippling. A 2008 report estimates that if no adaptation actions are taken in California, damages across sectors could result in “tens of billions of dollars per year in direct costs and expose trillions of dollars of assets to collateral risks.”¹⁷

¹² See review of economic assessments of the value of beaches in Pendleton, Linwood, Philip King, Craig Mohn, D. G. Webster, Ryan K. Vaughn, and Peter Adams, “Estimating the Potential Economic Impacts of Climate Change on Southern California Beaches,” (2009) PIER Research Report, CEC-500-2009-033-D, Sacramento, CA: California Energy Commission.

¹³ California Department of Fish and Game, “Estimated Long-Term Costs to Implement the California MLPA Master Plan Appendices,” (January 2008) Appendix L., Page L-1, available at <http://www.dfg.ca.gov/mlpa/pdfs/reviseidmp01081.pdf>.

¹⁴ *Id.*

¹⁵ Ewing, L., “Considering sea level rise as a coastal hazard,” Proceedings of Coastal Zone '07. Portland, OR, July 22-26, 2007; CA Climate Adaptation Strategy at p. 3.

¹⁶ Heberger, Matthew, Heather Cooley, Pablo Herrera, Peter H. Gleick, and Eli Moore, “The Impacts of Sea Level Rise on the California Coast,” (2009) PIER Research Report, CEC-500-2009-024-D, Sacramento, CA: California Energy Commission.

¹⁷ CA Climate Adaptation Strategy at p. 3, citing D. Roland-Holst and F. Kahrl, UC Berkeley “California Climate Risk and Response,” (November 2008) available at: http://www.next10.org/research/research_ccrr.html.

Many other coastal states are taking steps to address the potential impacts of sea level rise, but they too need federal funding to support these efforts. A recent survey by the California State Lands Commission found that Governors of several states, including Florida, Louisiana, Maryland, New Jersey, New York, South Carolina, Virginia, and Washington, have issued Executive Orders establishing various climate change commissions and advisory committees to consider the potential effects of global climate change, including sea level rise.¹⁸

A relatively modest but immediate infusion of federal dollars to help California and other coastal states adapt to projected changes will reap significant benefits, while conversely, doing nothing will most assuredly result in tragic costs. Long-term adaptation efforts will require a significant investment of targeted and accountable federal dollars to ensure that the nation continues to enjoy economic security in the face of climate change. We respectfully request that the Task Force add a seventh “Funding” element to the national strategy, which addresses both immediate funding needs and identifies sources of long-term funding.

* * *

Thank you for the opportunity to provide these comments on an issue of critical importance to the health and well-being of current and future coastal residents and ecosystems. If you have any questions, please do not hesitate to contact us.

Regards,



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¹⁸ California State Lands Commission, “A Report on Sea Level Rise Preparedness, Staff Report to the California State Lands Commission,” (December 2009) at p. 19.