



**OREGON SHORES**  
**CONSERVATION COALITION**

June 9, 2016

*VIA ELECTRONIC MAIL*

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**Re: Oregon Coastal Management Program Section 312 Evaluation**

Dear Ms. Hall,

Thank you for the opportunity to provide comments on the CZMA Section 312 Program Evaluation for Oregon's Coastal Management Program ("OCMP") (Oct. 2006 through Oct. 2015). The Oregon Shores Conservation Coalition played an important role in advocating for the creation of Oregon's land use planning system 40 years ago, and we continue to participate actively in the land use planning process with our members and coastal communities. Oregon's land use laws are an integral component of the OCMP. Oregon Shores and its members strongly support our land use system and its fundamental principles of citizen involvement, long-range planning, and sound principles of judicial review. There are significant challenges to the land use system and current policies; in particular, we would point to an increasing need for thoughtful advance planning in the face of natural hazards and coming climate change impacts to our coastal communities. Moreover, these challenges have been increased for reasons beyond the Coastal Management Program's purview, namely the state's inadequate forestry regulations which have led to a loss of federal support for much-needed planning efforts by local jurisdictions on the Oregon coast. While saluting the many accomplishments of the Oregon Coastal Management Program and its high value to the state, Oregon

Shores believes that the challenges facing the land use system must be addressed to more fully implement the goals of the program and the state's ability to fulfill the purposes of the CZMA.

## **Accomplishments**

Turning first to the Oregon Coastal Management Program's accomplishments:

1. The OCMP has been very strategic in leveraging NOAA Coastal Fellowship projects to build on previous investments in information technologies (e.g., coastal LiDAR mapping and the Oregon Coastal Atlas) and ramp up significant technical capacity to help local governments, other state agencies, and stakeholders address critical coastal issues such as impacts from sea level rise and tsunami inundation. These projects include Laura Matteson's mapping of dikes and levees, Cinamon Moffitt's assessment of local estuarine management needs, Meg Gardner's comprehensive inventory of existing shorefront protective structures and areas eligible for future armoring, and Julie Sepanik's current project to create a sea-level-rise vulnerability inventory. The data products from several of these are now important data layers in the Estuary Planning Viewer on the Oregon Coastal Atlas.

2. Several Projects of Special Merit led by the Department of Land Conservation and Development (DLCD) have modernized the Coastal Management Program and will aid future work by many coastal partners, including Oregon Shores, to address sea level rise, tsunami inundation, restoration of salmonids, beachfront erosion, etc. The Shorezone imagery project has made high-resolution images of the Oregon coast available on the web to a wide range of users for a variety of applications; the Oregon CMECS project [http://www.coastalatlus.net/documents/cmecs/PSM\\_FinalReport\\_Oct2014.pdf](http://www.coastalatlus.net/documents/cmecs/PSM_FinalReport_Oct2014.pdf) modernized and standardized Oregon's estuary habitat mapping.

3. Perhaps the biggest effort over the past five or six years was support for and completion of the Territorial Sea Plan amendment process that recommended areas available for and off-limits to ocean wave energy development. The Coastal Management Program staff at DLCD marshaled financial and technical resources on short notice (including re-directing NOAA CZM funds) and built the information and decision-making tools needed by stakeholders, agencies, the public, and other planning participants. The fact that DLCD was able to pivot to this work was instrumental in completing this process. Both these initiatives were major accomplishments. Oregon Shores is proud to have been an active participant in the state's Territorial Sea Plan amendment process for marine renewable energy planning. This effort coordinated information and input from a broad set of stakeholders through a collaborative process to identify potential development areas for a possible new renewable energy industry for Oregon's coastal communities. Much of this technical and data support was used concurrently by the Oregon Department of Fish and Wildlife to support a community-based process to identify marine reserves.

4. At the beach level, the OCMP worked closely with Tillamook County to collaborate with agencies and community members in Neskowin to complete the Neskowin Coastal Erosion Adaptation Plan. This plan was inspired, in part, by previous DLCD work to forecast the

impacts of climate change on the coast but was led by the interest of the county (Commissioner Mark Labhart in particular) and Neskowin residents in planning for increased coastal erosion.

5. Similarly, the DLCDC led an assessment of what coastal communities need to do in the face of a major tsunami, which resulted in the report <http://www.oregon.gov/LCD/OCMP/docs/Publications/TsunamiGuide20140108.pdf>. This document is an important tool for getting coastal communities ready for a major event.

6. Oregon Shores also believes that the state's efforts to support coastal community planning efforts to reflect changing economic realities (the move away from resource extraction and towards light industry, recreation and tourism) while preserving traditional fishing opportunities, such as the Astoria riverfront vision plan, have been well-directed.

### **Primary Concern outside the Coastal Management Program's Scope**

Oregon's Coastal Management Program ...and with it, local governments on the coast... has taken a huge financial hit through no fault of its own due to the state's failure to comply with requirements of the Coastal Zone Act Reauthorization Amendments (CZARA). The issue is that the regulations pertaining to coastal stream water quality that EPA and NOAA want Oregon to adopt cannot be adopted by DLCDC but instead fall under the jurisdiction of the Oregon Board of Forestry, which steadfastly maintains that the regulations under the Oregon Forest Practices Act are more than sufficient to meet the requirements of CZARA (see <http://www.ofic.com/refuting-the-czara-dissapproval/>). Oregon Shores considers the Board of Forestry and the Oregon Forest Practices Act to be egregiously at fault in failing to protect coastal water quality. We fully support strong regulations to protect water quality in coastal watersheds, and advocate for reform of Oregon's forest practices and the Forest Practices Act. However, we believe that the NOAA/EPA sanctions directed at DLCDC and the coastal program are counter-productive and weaken Oregon's overall efforts to protect coastal resources and help communities plan for impacts of climate change. Sanctions against DLCDC cannot have any direct effect because the agency doesn't have the authority to address the source of the water quality programs, and loss of funding for coastal planning benefits no one.

### **Primary Concerns Regarding Current Coastal Management Policies**

Oregon Shores' primary concerns regarding the state's current coastal management policies are: (1) shortfalls in planning for climate change (exacerbated by the disapproval of the state's Coastal Nonpoint Source Pollution Program, as addressed above); (2) failure to address increasing pressures for shoreline hardening, to the detriment of public access to and along the shore; (3) limited attention to preservation of estuaries and coastal shorelands; and (4) insufficient planning to prepare for or mitigate natural hazards. Each of these issues is addressed in more detail below.

### **Preparing for Climate Change**

Most fundamentally, Oregon Shores believes that our coastal communities must begin to plan for climate change impacts immediately. Advance planning is critically important given two opposing forces likely to result from climate change. On the one hand, increased storm frequency and intensity, along with sea level rise and decreased summertime precipitation, will put coastal properties, infrastructure, natural areas, and water sources at risk. On the other hand, Oregon's coastal climate is likely to remain mild, with longer, warmer summers and more temperate winters. As a result, Oregon's coastal communities may attract "climate refugees" and experience greater in-migration and associated pressures on land use and water resources. At the convergence of these two forces, Oregon's coastal communities will likely see property disappearing, as beaches migrate inland, while human population growth increases the demand for land and resources. Addressing climate change is fundamentally important to meeting several of the CZMA's goals, including protection of natural resources, minimizing loss from coastal hazards, and preserving public access. 16 U.S.C § 1452(2).

The OCMP is certainly aware of these challenges, and as noted in the section on accomplishments, has taken some productive steps in laying the groundwork for this type of planning. Also as acknowledged above, it is not the fault of the land use policies that Oregon lost funding due to inadequate water quality protection. Nevertheless, Oregon Shores is disturbed by the fact that Oregon chose to cut climate change adaptation efforts after the disapproval of Oregon's Coastal Nonpoint Source Pollution Program resulted in lost 306 grant funding in 2015. Regardless of the reason, stepping back from important efforts to support local planning for climate change adaptation is unacceptable.

The potential impacts of climate change in the Pacific Northwest, including Oregon's coastal region, vary widely because of its location in the Cascadia Subduction Zone (given that a major earthquake could drastically affect land elevation and thus its relationship to sea level) and the different long-term weather patterns that affect it. Global sea level rise (with estimates of about a meter expected by 2100 appearing increasingly conservative) is likely to cause very significant erosion.<sup>1</sup> Added to the predicted future sea level rise, large storm waves, some up to 26 meters (85 feet) at sea, are occurring more frequently on the Oregon coast; the overall "wave climate" is increasing, with a continuing trend of greater wave impacts on the shoreline. Climate change is also predicted to result in more intense winter storms, and thus greater flooding from the landward side. It may also lead to longer summer droughts, creating a different set of impacts to both human and natural communities.

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<sup>1</sup> The so-called Bruun rule predicts, as rough general estimate, a 1:100 ratio of sea level rise to tide heights, i.e., a one-foot rise in sea level will mean that high tides will typically reach 100 feet further inland, exposing new areas to erosion.

Climate change will affect various areas of the coast in different ways depending on tectonic subsidence, sand loss from beaches, and the amount of tidal marsh diking in estuaries. While specific impacts are expected to differ depending on local factors, sea level rise and other climate-related impacts are a certainty for the Oregon coast. Many of these changes will assuredly impact property, infrastructure, public health and safety, and coastal resources and ecosystems. Addressing these changing but uncertain conditions will require adaptation measures in order to ensure the resilience of Oregon's coastal communities and the state's ability to preserve key resources. The state and coastal communities will likely need to address the protection of both private property and public shoreline access. This will be a difficult balance to strike.

Oregon has adopted a framework for climate change adaptation, specifically acknowledging that adaptation strategies need to be developed at the regional and local level.<sup>2</sup> The framework primarily identifies the anticipated risks associated with climate change, including loss of wetland ecosystems and services, increased coastal erosion and risk of inundation from increasing sea levels and increasing wave heights and storm surges, and increased incidence of landslides.<sup>3</sup> Equally important, the framework acknowledges several gaps in the state's ability to address identified risks. For example, regarding coastal erosion, the report notes several shortcomings, including:

- Long-term sea level rise is not a principal factor in Goals 17 and 18, although it should be for land use planning for coastal and shoreland areas;
- Oregon lacks information about the cumulative effects of beachfront and estuarine shoreline protective structures;
- Oregon lacks a policy framework to use restoration of natural habitats and features as a strategy to buffer the effects of storms, waves, and higher sea levels; and
- Oregon does not have a policy framework for managing retreat from areas subject to increased threat of climate-related hazards.<sup>4</sup>

In its 2009 publication, *Climate Ready Communities*, DLCD established program objectives for a Coastal Adaptation Strategy, one of which is:

“To enable coastal local governments to prepare adaptation plans by 2015 to account for the effects of climate change on property, infrastructure, habitat, and resources . . .”<sup>5</sup>

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<sup>2</sup> Oregon Climate Change Adaptation Framework (Dec. 2010).

<sup>3</sup> *Id.* Risks 9, 6, and 11.

<sup>4</sup> *Id.* at 46.

<sup>5</sup> [www.oregon.gov/LCD/docs/publications/climate\\_ready\\_communities.pdf](http://www.oregon.gov/LCD/docs/publications/climate_ready_communities.pdf) (last visited 12/28/12).

Oregon Shores believes that a key to successful planning for climate change is adaptive planning—building into the planning process the ability to review new information and adapt plans accordingly on a continuous basis. The existing regulatory framework does not adequately or expressly account for climate change impacts on development. Existing planning frameworks fall short for at least two reasons: (1) there are no explicit requirements that state, regional, or local planning entities address potential sea level rise in land use or infrastructure planning; and (2) statutory planning timeframes are too short to encompass sea level rise impacts.

## **Adaptive Planning**

Several overarching policies may provide the necessary starting point towards developing more adaptive planning. For example, a rolling easement approach offers several options for adaptive planning.

A rolling easement is a legally enforceable expectation that the shore or human access along the shore can migrate inland instead of being squeezed between an advancing sea and a fixed property line or physical structure. The term refers to a broad collection of legal options, many of which do not involve easements. Usually, a rolling easement would be either (a) a law that prohibits shore protection or (b) a property right to ensure that wetlands, beaches, barrier islands, or access along the shore moves inland with the natural retreat of the shore.<sup>6</sup>

In a rolling easement approach, “human activities are required to yield the right of way to naturally migrating shorelines.”<sup>7</sup> Grounded in the public trust doctrine (i.e., shorelands held in trust) and common law principles of reliction, rolling easements can take several forms. Using a regulatory approach, statutes and regulations at the state level, local ordinances and code provisions, or even conditions on development permits could be adapted to address climate change. Using property rights tools, future interests, conservation easements, or restrictive covenants might provide a way to restrict future development of low-lying coastal areas. Other policies such as setbacks, rolling conservation easements, or transferrable development rights, or a combination of regulatory and title restrictions might also provide feasible avenues for climate change adaptation.

Some coastal communities already have policies to consider coastal and shoreline impacts of development. These policies fall short because (1) boundaries are generally static; (2) buffers are likely inadequate given projected rates of change; (3) there is no explicit provision for considering climate change; and (4) in

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<sup>6</sup> Titus, J., *Rolling Easements*, at 7. EPA (June 2011). Available at <http://water.epa.gov/type/oceb/cre/upload/rollingeasementsprimer.pdf> (last visited 1/7/13).

<sup>7</sup> Titus, *Rolling Easements* (2011).

most communities planning staff are not equipped to assess risks. Oregon Shores believes the state should explore policy options for assisting local communities to take the necessary steps to incorporate considerations of climate change impacts into land use planning decisions.

As a starting point, Oregon communities could directly address climate change within their land use planning policies. For example, in the State of Washington, King County's 2008 Comprehensive Plan recommends that the county incorporate climate change considerations into plans, programs, and projects:

King County should consider projected impacts of climate change, including more severe winter flooding, when updating disaster preparedness, levee investment, and land use plans, as well as development regulations.<sup>8</sup>

Although such a broad requirement does not address specific issues related to climate change, it is possible that an overarching acknowledgement of climate change impacts may serve as a catalyst to bring climate change considerations into some of the existing relevant legal framework. Moreover, without policy directives and resource assistance from LCDC and Federal agencies such as FEMA and NOAA, local governments may be reluctant to engage in the difficult long-range planning process of climate change adaptation.

While we acknowledge that neither DLCD/OCMP nor coastal jurisdictions have the means to accomplish sweeping new adaptive plans for climate change in the short-term, we would urge NOAA to suggest that the state adopt an explicit mandate that climate change impacts be incorporated in ongoing planning efforts, and that the state develop a plan for addressing shortfalls in needed information.

### **Natural Hazards—Tsunamis**

While the exact parameters of climate change impacts such as sea level rise are not known with exactitude, making it difficult to direct specific actions, far better information is available with regard to the likely effects of tsunamis. We would urge NOAA to present Oregon with a "Needed Action" where tsunamis are concerned. Statewide Land Use Planning Goal 7, dealing with Natural Hazards, should be updated to specifically deal with the likelihood of a tsunami, which would require local governments in turn to address tsunami hazards specifically (at present the goal simply mentions tsunamis as if they are just another routine hazard). This would give the DLCD as an agency the mandate it needs to get this underway. This is clearly needed, especially with the DOGMI tsunami inundation map projections that are now available. While the current Goal 7 needs strengthening, even in its present form it would be more effective if actually implemented with regard to tsunami data. Another Needed Action would be for DLCD to actually implement Section B of the goal.

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<sup>8</sup> King County Comprehensive Plan, Policy E-212, at 4-17 (2008).

## **Shoreline Hardening**

Oregon should also address the increasing trend and pressure to protect coastal private property with hardened shoreline structures, such as riprap and seawalls. These structures have the effect of reducing the width of the beach, and can have the effect of reducing the public beach area and public access even at present. In the long term, as sea levels and storm surge continue to rise, the beach will become ever more condensed between the ocean on one side and the man-made shoreline structures on the other. Oregon should be considering how to re-envision the use of shoreline protective structures within a larger framework of adaptive planning. The state can help coastal communities consider which areas should be protected, and which areas should be allowed to remain in a natural dynamic state.

Oregon's recent effort at mapping coastal properties that are eligible for shorefront protection under Goal 18 is a good step for better understanding the current and possible future landscape of shoreline hardening on Oregon's coast. The Coastal Atlas has the potential to become a significant and important resource for local planners, community members, and governments to understand development changes in coastal communities and rural areas. However, the collection of data alone will not be enough to address these pressures and preserve both communities and public access along our shores in the face of climate change impacts.

## **Periodic Review**

When first adopted, Oregon's land use system envisioned the Periodic Review process to allow for similar ongoing adaptation over time, albeit at intervals rather than continuously. Periodic review has been significantly inhibited and reduced, and currently remains a requirement for only a handful of jurisdictions. In terms of Oregon's ability to plan for and adapt to climate change, this moves us in the wrong direction.

Basic changes to incorporate climate change analysis into planning policies could be accomplished through a goal adoption or amendment process, except that for the Oregon coast such a requirement should be mandatory on cities and counties. However, even such a modest goal as amending local comprehensive plans to include climate change considerations in land use planning is stymied by the lack of state-level policy directives to incentivize or require such an amendment. As recognized by DLCDD staff, the program for revising comprehensive plans to include new information is in fact moving the other direction, *away from* mandatory review and revision. The gutting of the Periodic Review process severely undercuts the ability of land use planning to adapt over time to consider new information and revise policies, in particular for protection of natural resources and hazard avoidance.

DLCD/OCMP recognizes that many of the local comprehensive plans are becoming outdated. In order to effectively address climate change impacts on land use in communities, in particular coastal communities, the state must rethink the question of periodic review to assure that climate change adaptation considerations are regularly and effectively integrated into all coastal local government comprehensive plans, zoning, maps and inventories. A Needed Action demanding that Oregon return to regular periodic review of comprehensive plans would be beneficial.

## Oregon's Estuaries

Oregon's numerous estuaries serve as rearing areas for important runs of threatened fish species, such as Oregon Coast Coho and Southern Oregon Coho salmon, and Columbia River Chinook, Chum and Coho salmon. These species depend on bays, marshes, and tide flats as foraging areas and nurseries for young. Many of Oregon's coastal wetlands have been diked for farming, transportation and other development uses. As sea level rises, remaining tidal marshes could be lost, as they will be unable to move upslope and instead will be pinched off against hardened human-built structures. These habitats may also be affected by beach erosion, tidal inlet widening, and overtopping of dunes and barriers by storm surges.

"Climate Change Adaptation/Sea Level Rise data, planning and regulations" are recognized in the Oregon Coastal Zone Management Program as "Priority Needs and Information Gaps."<sup>9</sup> More specifically:

The state's estuary and coastal shorelands planning framework is in need of review and update to respond to changes in habitat, coastal economies and the effects of climate change and sea level rise.<sup>10</sup>

As sea levels rise, wetlands will convert from one type to another and will need to move inland in order to retain the variety of wetland types that serve important ecosystem functions. For example, an increase in sea level could transform what is now a high marsh into subtidal habitat, while upriver floodplains become the new estuary.

The barriers to wetland migration in estuaries are the same as those for the coastal shore—*i.e.*, hardening of estuary shorelines eliminates upland areas for shallows, mudflats, and marshes as water levels rise. Humans interact heavily with estuaries through construction of dike and ditch systems to convert estuaries to agricultural lands, as well as filling and infrastructure construction for residential

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<sup>9</sup> See, e.g., comments on estuary plans (goals 16 and 17) in OCZMP at 59.

<sup>10</sup> *Id.*, at p. 62.

development. By placing barriers in estuaries we increase the risk of flooding upstream and limit the potential for dynamic estuary migration. Restoration of estuaries can help increase the resiliency of these ecosystems and help prevent more destructive flooding.

Incorporating concepts of wetland adaptation into local land use planning could take the form of increased setbacks from wetland and riparian areas, conservation easements, and other rolling easement and adaptation tools discussed above. Use of these planning tools could provide the opportunity to accomplish a number of goals, including preventing further loss of wetlands, protecting public and private property from hazards of flood and extreme storm surges, enhancing and protecting water quality and wildlife habitat, and preserving the economic value of estuaries for food production and fisheries.

In 2011-2012, Oregon Shores engaged in a grass-roots process with citizens of Lincoln County and Newport to develop a proposal to incorporate adaptive planning for climate change impacts to wetlands in local plans. That effort engaged local residents in identifying priorities and developing an approach to climate change adaptation. Many Lincoln County residents participated in this effort to develop a pioneering adaptive plan, but we encountered significant barriers to achieving changes to land use planning ordinances to incorporate climate change considerations and adaptive planning concepts. Not the least of these was a lack of resources at the local government level to address issues that had not been specifically mandated by state-level policy or legislation. An equally significant challenge was the absence of a policy directive or framework for creating adaptive planning (given the absence of Periodic Review as discussed above). LCDC should consider collaborative efforts with the Department of State Lands and other agencies to determine how concepts of adaptation, including setbacks or buffers that “roll” with changing wetlands boundaries, could dovetail with existing laws regarding wetland delineation and protection. A suggestion from NOAA along these lines would be helpful.

## **Federal Consistency**

The CZMA provides states like Oregon with an important role in evaluating federal actions within the coastal zone to determine whether they will comply with the state’s enforceable policies. In order for Oregon to fulfill this role and meet the policy purposes of the Act, Oregon Shores believes two key actions must occur. First, it must be clear to both applicants and the public what are the “enforceable policies” of the state under the CZMA. Because the OCMP is embodied in many local jurisdiction planning documents, which may be amended with some frequency, the state must make an effort to ensure that the portions of those documents that are relevant to and properly characterized as “enforceable policies” are up to date with both the public and NOAA. Currently, the enforceable policies do not appear in any

one place for all local coastal jurisdictions. The state should prioritize updating this information and ensure that all adopted policies are approved by NOAA for inclusion in the OCMP. Second, the state must act in its role under the CZMA. This includes not only approving CZMA certifications, but also, where appropriate, issuing denials. Recently, a federal project (Oregon LNG terminal and pipeline, proposed for Warrenton) was denied land use permits by both the local county and local city where the project would occur within the coastal zone. Those decisions included the application of some of the enforceable policies of the state's OCMP. However, the state failed to act to deny the CZMA certification. For those members of the public who had testified at local hearings about the impacts of this project on the coastal zone, the state's failure to stand behind the local government's decisions appeared inconsistent with the State's CMZA Section 307 role. As Congress explained in adopting the Act, "[t]he key to more effective protection and use of the land and water resources of the coastal zone is to encourage the state to exercise their full authority over the lands and waters in the coastal zone ..." 16 U.S.C. § 1451(i). With NOAA's guidance, the state must be willing to act both to approve and to deny CZMA certifications based on proper analysis of compliance with the federally-approved enforceable policies of the OCM.

## **Conclusion**

Although Oregon Shores believes that some important progress has been made at the state level in coastal zone management, we are frustrated by the failure to make meaningful progress towards addressing climate change impacts in land use planning and infrastructure development decision-making. Several of the CZMA's legislative policy purposes and Oregon's OCMP provisions will be affected or thwarted by climate change if action is not taken to address this issue head on. Oregon Shores encourages NOAA to work with the State of Oregon to identify more aggressive measures to: (1) educate coastal communities and local leaders about climate change impacts; (2) adopt adaptive planning tools to address changing and dynamic coastal conditions over time; and (3) begin to develop funding sources to address anticipated major infrastructure relocation needs. These actions fall squarely within the scope of the CZMA and would help to move the state towards successful implementation of the Oregon Coastal Management Program.

Sincerely,

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Courtney Johnson  
Crag Law Center, partner with  
Oregon Shores in Coastal Law Project