Final Evaluation Findings

Oregon Coastal Management Program

November 2006 to September 2016

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Executive Summary

The Coastal Zone Management Act (CZMA) requires the National Oceanic and Atmospheric Administration (NOAA) to conduct periodic evaluations of the performance of states and territories with federally approved coastal management programs. This evaluation examined the operation and management of the Oregon Coastal Program by the Oregon Department of Land Conservation and Development, the designated lead agency, for the period from November 2006 to September 2016. The evaluation focused on three target areas: program administration, including marine energy; state-local partnerships, including coastal hazards; and estuary management plan updates.

The findings in this evaluation document will be considered by NOAA in making future financial award decisions concerning the Oregon Coastal Management Program. The evaluation came to these conclusions:

Accomplishment: The Oregon Coastal Program's exceptional level of effort to update the federally approved program includes the submission and approval for 16 state statutes, 22 local jurisdiction comprehensive plans, and five other state policies that are now incorporated into the approved program, ensuring that local and state policies can be used for federal consistency.

Accomplishment: The Oregon Coastal Program is a national leader in planning for marine hydrokinetic energy. The coastal program engaged in an extensive outreach effort to work with stakeholders and the public to develop Part 5 of the Territorial Sea Plan, which identifies three renewable energy facility suitability areas were industry should consider siting marine renewable energy projects. It also incorporates project review standards to protect fisheries, ecological resources and marine habitat, recreation uses, aesthetic resources, and other beneficial uses of the territorial sea.

Accomplishment: The Oregon Coastal Program is capitalizing on its strengths in data management and planning to develop a strong foundation for communities to assist them with updating the estuary management plans and enabling them to make decisions based on current information.

Accomplishment: The Oregon Coastal Program has provided financial and much-valued technical support to local communities to support local efforts to implement and continually improve coastal management in the state.

Accomplishment: The Oregon Coastal Program is a leader in helping the state prepare for coastal hazards, including developing hazard planning guidance for communities; collecting, analyzing, and providing hazards-related data in a usable format to local governments and state agencies; serving as lead author for the state's Climate Adaptation Framework and working with two counties to develop the first regional framework for climate adaptation; and providing financial

and technical assistance to help communities plan for tsunamis, climate change, and coastal erosion.

Recommendation: The NOAA Office for Coastal Management recommends that the Oregon Coastal Management Program continue to work closely with state agencies, including the Oregon Department of Environmental Quality, Oregon Department of Forestry, and Governor's Office to address the remaining gaps in the state's coastal nonpoint program as soon as possible in order to achieve full approval of Oregon's coastal nonpoint program and reinstatement of full funding for the coastal program. The coastal program is also strongly encouraged to work with the Office for Coastal Management to meet the outstanding gaps in its coastal nonpoint program and hold regular (e.g. quarterly) check-ins with NOAA and Environmental Protection Agency coastal nonpoint program staff members to discuss progress made in achieving these interim benchmarks and full approval of the state's coastal nonpoint program.

Recommendation: The Office for Coastal Management recommends that the Oregon Coastal Management Program work with the Office for Coastal Management to create and provide the public with clarifying information that describes the role and responsibilities of the Department of Land Conservation and Development and the networked coastal program partners in executing the federal consistency process.

Recommendation: The Office for Coastal Management recommends that the Oregon Coastal Program work closely with its NOAA liaison to develop a mutually agreed upon process for submitting and maintaining program changes that will continue the state's efforts to identify enforceable policies in local plans and state policies, and to submit the local plans and state policies to NOAA for review and approval.

Recommendation: The Office for Coastal Management recommends that the Department of Land Conservation and Development ensure adequate staff capacity and knowledge to manage federal grants at the department level and to pursue a higher level of training in federal funding requirements for appropriate additional staff members to ensure that federal funds are managed appropriately, and to provide backup for when staff members are out.

Recommendation: The Oregon Coastal Program's expertise and support of coastal hazard planning efforts is highly valued by state agencies and local governments. The Office for Coastal Management recommends the coastal program continue its important efforts to better prepare Oregon for existing and future coastal hazards.

Recommendation: The Office for Coastal Management recommends the Oregon Coastal Program to be more intentional about developing and communicating the programs' success stories at the local, state, regional, and federal levels.

This evaluation concludes that the Oregon Department of Land Conservation and Development is successfully implementing and enforcing its federally approved coastal management program,

adhering to the terms of the federal financial assistance awards, and addressing coastal management needs identified in section 303(2)(A) through (K) of the CZMA.

Program Review Procedures

The National Oceanic and Atmospheric Administration (NOAA) evaluated the Oregon Coastal Management Program in fiscal year 2016. The evaluation team consisted of Carrie Hall, evaluation team lead, NOAA Office for Coastal Management; Pam Kylstra, evaluator, NOAA Office for Coastal Management; Rebecca Smyth, West Coast director, NOAA Office for Coastal Management; Kris Wall, regional coastal management specialist, NOAA Office for Coastal Management; and Kathleen Leyden, manager, Maine Coastal Management Program. The support of the coastal management program staff was crucial in conducting the evaluation, and this support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the director of the Oregon Department of Land Conservation and Development, published a notice of "Intent to Evaluate" in the *Federal Register* on April 11, 2016, and again on July 21, 2016, and notified members of Oregon's congressional delegation. The coastal management program posted a notice of the first public meeting and opportunity to comment in the *News Times* on May 13, 15, and 20, 2016. The coastal management program posted a notice of the second public meeting and opportunity to comment in the *Oregonian* on July 22, 2016.

The evaluation process included a review of relevant documents and a survey of stakeholders, which helped identify three target areas for the evaluation: program administration, estuary management plans, and state and local partnerships and coastal hazards. A site visit was conducted and the evaluation team held meetings with staff members and group discussions with stakeholders and program staff members about the target areas. In addition, two public meetings were held: Tuesday, May 26, 2016, at 5:30 p.m. and Wednesday, September 7, 2016, at 5:00 p.m. The meetings were held respectively at Newport Best Western Hotel, Cove Room, at 3019 North Coast Highway, Newport, Oregon 97365 and at 1201 NE Lloyd Boulevard, 1st Floor Conference Room (Room 140), Portland, Oregon 97232. The meetings provided an opportunity for members of the public to express their opinions about the implementation of the program. Stakeholders and members of the public were also given two opportunities to provide written comments. A summary of the written comments received and the NOAA Office for Coastal Management's responses are included in Appendix A. NOAA then developed draft evaluation findings, which were provided to the coastal management program for review, and the program's comments were considered in drafting the final evaluation findings.

Final evaluation findings for all coastal management programs highlight the programs' accomplishments in the target areas and include recommendations, which are of two types.

Necessary Actions address programmatic requirements of implementing regulations of the Coastal Zone Management Act (CZMA) and of the state coastal management program approved by NOAA. These must be carried out by the date specified. Failure to address necessary actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in CZMA §312(c).

Recommendations are actions that the office believes would improve the program but which are not mandatory. The state is expected to have considered the recommendations by the time of the next evaluation or dates specified.

Evaluation Findings

Program Administration

This evaluation of the Oregon Coastal Management Program has found that the program is successfully implementing and enforcing its federally approved coastal management program, adhering to the terms of the federal financial assistance awards, and addressing coastal management needs identified in section 303(2)(A) through (K) of the CZMA. The NOAA Office for Coastal Management acknowledges that the withholding of 30 percent of Section 306 funds will impact the program's capacity to accomplish as much going forward, and may particularly impact the program's ability to support new initiatives and projects to improve coastal management at state and local levels.

Impact of Withholding 30 Percent of Section 306 Funds

As a result of the coastal nonpoint program disapproval, 30 percent of Oregon's Section 306 funds must be withheld, starting in fiscal year 2015, until the coastal program has an approved coastal nonpoint program. Because of the funding cut, Oregon has not been able to fill a staff position that deals with climate change adaptation, and another coastal program position that provided technical support for ocean and estuary planning; travel and supplies are also affected.

In addition, a significant change is that the coastal program is no longer able to provide any planning assistance or technical assistance grants to coastal local governments with Section 306 funding. Going forward, the coastal program may also have less funding and technical assistance available to support other state agencies as they implement key projects to improve coastal management.

The evaluation team heard from local planners and officials that the loss of grant funds will have a negative impact on local government operations and that some current efforts will need to be put on hold. Several evaluation participants also noted that they highly valued the technical assistance provided by the coastal program staff and hoped the program would at least be able to continue to provide technical assistance.

The loss of 30 percent of Section 306 funding has impacted a number of types of local government projects, including these examples:

- The Tillamook County Department of Community Development used planning and technical assistance grants to support the Southern Flow Corridor project, which will permanently restore and protect 521 acres of tidal wetland habitat and provide substantial habitat benefits to threatened coho salmon, chum, and Chinook salmon, as well as steelhead and cutthroat trout.
- Clatsop County has used the funds to support the efforts of its ad-hoc wetlands advisory committee to advance wetland protections and incorporate an innovative "ecosystem"

services" approach in the local program that values wetlands in their role in managing stormwater.

• The Columbia River Estuary Study Taskforce has used the funds to support a coastal planner who assists coastal communities with obtaining grant funding to purchase land to protect streams bearing threatened coho salmon, and provides assistance with environmental permitting and compliance for major estuary restoration projects.

Denise Lofman, director of the Columbia River Estuary Study Taskforce, also provided public comment (summarized on page 34) that further discusses in depth the many impacts the loss of technical and planning assistance grants will have in the Columbia River Basin. In addition, the outcomes of successful technical assistance and planning grants that occurred during the evaluation period are further discussed in the section, "State and Local Government Partnerships and Coastal Hazards: Project Partners." The coastal program has been able to continue to provide some support to select communities for updating estuary management plans, since the program has successfully competed for two projects of special merit, which are competitive grants awarded by the Office for Coastal Management to further strategies developed as part of a program's five-year Section 309 Assessment and Strategy.

Water Quality

The coastal program provided technical assistance and funding to support projects and efforts to improve water quality in the state's coastal zone. Projects and initiatives ranged from improved policies and ordinances to on-the-ground restoration and land acquisition. Examples highlighted in the previous subsection are Tillamook County's Southern Flow Corridor project, support of Clatsop County's wetland committee, and Columbia River Estuary Study Taskforce's support of community efforts to protect streams and restore estuaries. In addition, the "State and Local Partnership and Coastal Hazards "section discusses several projects to improve water quality: City of Bandon – Riparian Areas Resources Inventory, North Bend – Stormwater Utility Asset Mapping, and Multiple Partners – Forest Land Conversion Memorandum of Agreement. The state was also successful in obtaining several Coastal and Estuarine Land Acquisition grants to protect over 1,800 acres of forestland and associated streams. The coastal program is also involved in a multiyear effort, as discussed in the "Estuary Management Plans" section, to update the state's estuary management plans and incorporate new habitat maps created by the coastal program so that communities can make more informed decisions and better protect natural resources and water quality. In addition, the Oregon Watershed Enhancement Board is part of the networked Oregon coastal program and provides grants to Oregonians to restore and conserve local streams, rivers, wetlands, and natural areas.

Coastal Nonpoint Pollution Control Program

The Office for Coastal Management encourages the coastal program to continue to work towards full approval of its coastal nonpoint pollution control program. The office recommends that the coastal program continue to work closely with state agencies, including the Oregon Department of Environmental Quality, Oregon Department of Forestry, and Governor's Office to address the

remaining gaps in the state's coastal nonpoint program as soon as possible in order to achieve full approval of Oregon's coastal nonpoint program and reinstatement of full funding for the coastal program. The coastal program is also strongly encouraged to work with the Office for Coastal Management to meet the outstanding gaps in its coastal nonpoint program and hold regular (e.g. quarterly) check-ins with NOAA and Environmental Protection Agency coastal nonpoint program staff members to discuss progress made in achieving these interim benchmarks and full approval of the state's coastal nonpoint program.

Full approval will enable NOAA to provide the coastal program with its full federal allocation under the Coastal Zone Management Act. The coastal program will then be able to use those funds to restore support to local and state activities to address coastal issues such as water quality, coastal habitat, climate, and hazards.

Staff

Oregon Coastal Program staff members are highly regarded by stakeholders and partners. Staff members are empowered to be creative problem solvers and innovators, and are connectors in the coastal management community, bringing the right people together to address issues. Local government planners explained that they essentially perceived the coastal program staff as extensions of their staff and essential to the local government's success. Multiple coastal program staff members have former experience as local planners, which was also cited as very valuable. Coastal program staff members provide direct technical assistance and support with land use planning and GIS. Staff members are highly valued by local government staff members for their technical assistance. As one stakeholder stated, "Their low-key approach engenders community trust and support of initiatives. . . . [They are] a ready supporter for locally-developed solutions to problems."

Learning Culture

The Oregon Coastal Management Program also fosters a culture of learning and improvement. For example, as described in the "Estuary Management Plans" section, the program is taking what has been learned through the Coos County Estuary Management Plan update process and incorporating that knowledge into developing tailored geospatial databases for each major estuary.

Coastal program staff members have also contributed to the enhancement of a major department-wide effort to upgrade technology capabilities. In particular, the department now has a "PAPA" database (local government post-approval plan amendments) that is used by planners to analyze and share information regarding plan amendments. Planners who are using the system praised it for making it easy to share and communicate information, analysis, and concerns within the platform.

Grants Management

The coastal program's grant coordinator has continued to stay up-to-date with federal grant guidelines, worked to maintain a high degree of knowledge and expertise, and worked with others in the agency to manage cooperative agreements and grants in a manner consistent with all federal requirements. The Department of Land Conservation and Development is a small state agency, and most of the expertise regarding federal requirements lies with one person. In 2015 and 2016, the department invested in training for fiscal staff including courses such as Indirect Costs and Allocation Plans, NOAA Grant Management Training, Federal Uniform Guidance, and Federal Emergency Management Act Federal Grants Update. The Office of Coastal Management recommends that the department ensure adequate staff capacity and knowledge to manage federal grants at the department level, and to pursue a higher level of training for appropriate additional staff members in federal funding requirements to ensure that federal funds are managed appropriately, and to provide backup for when staff members are out. The Office for Coastal Management encourages the department to consider having all fiscal staff members continue to take NOAA Grants Office training when available, and also consider more comprehensive federal grants training courses that would be applicable to managing all federal funds the department receives. While it is a challenge for small agencies, the department should continue to work toward providing succession and backup for grant coordinators.

Succession Planning

The Oregon Coastal Program has a number of senior staff members who are close to retirement or recently retired. These retirements will mean a loss of program skills, relationships, and knowledge, which are a key part of the success of the program to date. Because of the inability to backfill certain positions as a result of the funding cuts, and the program's small staff with little to no overlap in duties, the Oregon Coastal Program will have a transition in a number of positions in the near future.

The Office for Coastal Management encourages the Oregon Coastal Management Program in its efforts to plan for this transition and would encourage the program to look at overall workforce planning to help with succession planning, retention of high-quality staff members, and cross-training within the program and with other parts of the department (e.g., grants management). A workforce plan could aid in ensuring long-term staff success and in helping to determine which core competencies and knowledge the program needs to retain, as well as provide continued support for the learning culture. The Oregon Coastal Management Program could look to other West Coast programs that are working on similar issues to help with approaches and thoughts, including the Padilla Bay National Estuarine Research Reserve and the San Francisco Bay Conservation and Development Commission, and might also consult the Office for Coastal Management.

State, Regional, and National Leadership and Partnerships

The coastal management program has helped to move coastal management forward at the state, regional, and national levels. At the state level, the Oregon Coastal Atlas has historically been a

key asset for providing coastal information to a variety of constituencies, including the public, various stakeholder groups, and local, state, and federal agencies, as well as serving key data of other agencies. The expertise that has gone into both the Coastal Atlas has also led the program to be one of the leaders in the region, especially in the development of the West Coast Ocean Data Portal, a key resource for broader regional planning and regional partnerships. As one stakeholder noted, the "program has shown tremendous leadership in the area of data creation, data management, and data sharing. . . . [I] could not do my job without their solid work in this area. The staff experience and expertise also is regularly called upon for technical assistance and best practices to other states and federal partners."

The coastal program has provided significant leadership in the West Coast Governors Agreement and emerging West Coast Ocean Partnership, and the current manager serves as the state cochair for the West Coast Regional Planning Body and the emerging West Coast Ocean Partnership. The program also supports coastal zone management at the national level, especially through the Coastal States Organization—the former program manager served as chair of the Coastal States Organization Reauthorization Committee. The Office for Coastal Management encourages Oregon's continued role in regional and national coastal management efforts to the greatest extent possible. Although, the program must deal with reduced capacity issues, the national reputation of the program as a leader in the field of coastal management helps draw national visibility and exposure to its accomplishments. The program's expertise in key priority areas continues to help move the national coastal management program forward, and other states look to Oregon for information and best practices on key coastal issues such as coastal hazards. Engagement at the national and regional levels also brings back information and best practices from other coastal states to the Oregon Coastal Management Program.

The Oregon Coastal Program has strong relationships with partners, but there are opportunities to build and utilize partnerships to bring additional support to local coastal governments. In particular, the coastal program should explore opportunities to capitalize on the capabilities of other NOAA partner programs that have expertise and capacity in priority coastal issue areas such as climate impacts and ocean acidification. For example, the South Slough National Estuarine Research Reserve, particularly the Coastal Training Program, Oregon Sea Grant, and the Pacific Northwest Climate Impacts Research Consortium have expertise and resources that align with priority coastal issues. These partners and their expertise could help with building local community capacity, providing them the training and information they need to better address priority coastal issues, including climate change and sea level rise work, as well as the emerging issue of changing ocean conditions that includes ocean acidification.

Communication

The coastal program is a highly successful coastal program with numerous projects that are first in the nation, or involve unique approaches and methods. The Office for Coastal Management encourages the coastal program to be more intentional about developing and communicating the program's success stories at the local, state, regional, and federal levels. This would promote information transfer to other programs and partners as well as raise the visibility of the coastal program and its achievements. Additionally, broadening communication about the program's efforts to new target audiences may afford the opportunity to identify and develop new partnerships, enabling the program to be even more effective.

The loss of 30 percent of Section 306 funding impacts, and will continue to affect, the implementation of the Oregon Coastal Management Program. The coastal program's communication of the big picture and the impacts of the loss of funding is important so that NOAA and others can take this message forward.

Federal Consistency

Coastal Zone Management Act Reviews and Local Requirements

The Oregon Coastal Management Program is a networked coastal program. The Office for Coastal Management received comments from the public that indicate that it would be beneficial for the coastal program to provide the public with clear information on the role and responsibilities of the Department of Land Conservation and Development and the state agencies and local governments that are part of the networked program in executing the federal consistency process.

The Oregon Coastal Management Program includes local comprehensive plans, permitting authorities, and enforceable policies approved by NOAA as part of the state's management program. In recent years, an issue has been brought to the Office for Coastal Management about how the local comprehensive plans, permits, and enforceable policies are applied through the Coastal Zone Management Act federal consistency review process. Requirements to obtain local permits and local land use compatibility statements are recognized by NOAA as part of the Oregon Coastal Management Program; however, the state cannot delegate or defer its Coastal Zone Management Act federal consistency decision-making authority to a local government permit decision. Regardless of state law requirements, only the lead state agency authorized by NOAA as part of a state's coastal management program can determine whether a federal action is consistent with the enforceable policies of the state's NOAA-approved program. State Coastal Zone Management Act decisions must be based on the substantive standards of enforceable policies approved by NOAA and cannot be based on decisions or actions (or non-action) by a local government. A state coastal management program's lead state agency may consider the substantive standards within local enforceable policies approved by NOAA, but it is important to note that not all local permit requirements have been submitted and approved as enforceable policies for Coastal Zone Management Act review purposes. A state may include a local permit decision or local land use compatibility statement in its findings for a Coastal Zone Management Act review, but a decision by a state to issue an objection cannot be based on a local government not issuing a permit or land use compatibility statement. In addition to not being authorized under the Coastal Zone Management Act and NOAA's regulations regarding state agency decisions for federal consistency, delegating or deferring Coastal Zone Management Act decisions to local governments is contrary to the act's requirements that local interests not outweigh

national and regional interests. The Office for Coastal Management will continue to discuss the land use compatibility statement issue with the Oregon Coastal Management Program.

Federal Consistency Database

The coastal program has made significant updates to its federal consistency database. The update resulted in a streamlined tracking and review process for routine federal actions, which will minimize duplication and increase staff efficiency. The update is part of the department's Information Management Modernization Initiative, and the Federal Consistency Database is now live. The coordinator is working with technical staff members to address additional enhancement needs to make the database even more efficient for the department. Currently, the database allows users to track permits in review and to actively search for permits based on specific search criteria. Further, the database allows permit records to be linked to permit documents within the network.

Routine Program Changes

The coastal program has successfully addressed a recommendation in the previous evaluation to prioritize the submittal of enforceable policies and to develop a schedule for submitting proposed changes for incorporation into the state's approved coastal program. During the evaluation period, the coastal program systematically worked on submitting updates to NOAA. Between the last evaluation and September 2016, the program has received NOAA approval for 16 state statutes, 22 local jurisdiction comprehensive plans, and five other state policies as routine program changes for incorporation into the approved program. The Oregon Coastal Program continues to work on this effort and anticipates submitting approximately 20 Oregon statutes and 17 local jurisdiction land-use regulations and comprehensive plans to NOAA in the near future. The Office of Coastal Management commends the coastal program for the exceptional level of effort to update the federally approved program and ensure that local and state policies can be used for federal consistency.

The coastal program is planning to establish and implement a new process for routine program changes so that maintenance and keeping the program up-to-date is more efficient and timely. The Office for Coastal Management encourages the program to institutionalize the tracking and submission of changes to local comprehensive plans and state statutes as program changes to their approved program. For example, the state may want to consider submitting statutory updates annually (at a minimum), in conjunction with the end of the state's legislative session, when most changes would have been made. For local comprehensive plans, the program may want to consider using its field rep staff to track when local governments are making changes to their local plans and regulations, and when those changes would affect enforceable policies. These changes could be submitted to NOAA after being adopted and approved, or bundled semiannually with other local changes.

Marine Energy

Overview

The Oregon Coastal Management Program's leadership helped prepare the state in its effort to be a national leader in hydrokinetic marine energy. Hydrokinetic energy is an area of increasing interest for both industry and states interested in expanding their renewable energy portfolios. In 2008, the governor directed the department to seek recommendations for amending the Territorial Sea Plan to address wave energy development. At that time, the state and Federal Energy Regulatory Commission signed a memorandum of understanding for cooperation on the siting of marine renewable energy development, and adopting the use of a state comprehensive plan to guide that process.

In 2008, a Territorial Sea Plan Advisory Committee with broad representation of coastal interests, including local government, recreation, commercial fishing, wave energy, conservation, and state agencies, was created to develop recommendations on marine energy for the Land Conservation and Development Commission. The committee, with staff support from the coastal program, developed recommendations to address the siting of marine renewable energy development based on a comprehensive assessment of important marine resources and uses. From the recommendations and input provided by the Ocean Policy Advisory Council, also staffed by the coastal program, the Land Conservation and Development Commission approved the addition of Part 5, "Use of the Territorial Sea for the Development of Renewable Energy Facilities," to the state's Territorial Sea Plan. The amendment provided policy guidance for identifying specific areas for the development of marine renewable energy facilities and emphasized the need to pursue acquisition of site-specific baseline data, pilot projects and phased development, impact monitoring, and adaptive management as the path to full commercial-scale project development.

Next, the coastal program and department continued to work with the Territorial Sea Plan Advisory Committee and Ocean Policy Advisory Council to further develop the Territorial Sea Plan. The coastal program, committee, and council engaged in an extensive public stakeholder engagement to develop an understandable and streamlined process for future applicants and decision makers, while minimizing impacts to fishing interests, recreational users, coastal communities, and others affected by wave-energy generation decisions. The coastal program also partnered with NOAA, state agencies, and nonprofits to acquire baseline data to inform the siting of marine energy facilities.

Visual Resources

As part of the amendment process, Oregon established methods by which the aesthetic impacts of marine renewable energy development could be evaluated in an objective manner. Oregon's Statewide Planning Goal 19 states that the state agencies shall "protect and encourage the beneficial uses of ocean resources such as . . . aesthetic enjoyment." The coastal program was the first in the U.S. to establish aesthetic standards for marine renewable energy development.

Coastal program staff members worked with the Oregon Parks and Recreation Department to develop and implement a system for visual resource management within the Oregon Territorial Sea. The process involved extensive outreach to and training for local government partners within the coastal zone, as well as extensive review during the Territorial Sea Plan amendment process. Coastal program staff members served as the coordinating entity and as the technical lead and support. The project involved the adaptation of methods established by federal land management agencies (Bureau of Land Management and Forest Service) for managing scenic resources in the terrestrial environment, for use in the marine environment. Once adapted, the methods were reviewed by the stakeholders involved in the public policy development process.

Visual resource inventory assessment surveys were conducted at selected locations along the coast of Oregon, including all state parks and in other public access locations with important scenic resources. The surveys involved outreach to and education for local governments that participated with the survey teams to conduct the site assessments. Coastal program staff members generated a geospatial database and model to display the results of the scenic quality assessments comprehensively within the territorial sea. Next, the coastal program led a public process to adapt the visual resource class standards that will be used to evaluate a proposed project's potential impact within the associated viewsheds. Oregon now has a Visual Resources Management System that will help ensure that the activities and impacts of marine renewable energy will occur in ways that meet the aesthetic expectations of citizens when looking out into the territorial sea.

Marine Mapping Workshops

To further and more deeply engage stakeholders, two sets of work sessions were held in cities and towns along the coast. The sessions were designed to increase public involvement in and awareness of the process, and to get stakeholder feedback on the process and methods being applied to the spatial analysis, as well as the type of plan that would be generated from the spatial data. The coastal program was able to use the Oregon MarineMap system, a visual mapping tool that enables the aggregation of digital spatial data to create map overlays, and has the ability to do simple analysis of the summary overlays of mapped information. The tool helped stakeholders visualize the data, including social and ecological attributes and various uses and activities.

The coastal program also worked with all partners to make all reports and information available online through the Oregon Ocean Information website. Partners were able to post and share all relevant reports, meeting agendas and notes, and associated information online and make them available to the public in one place. Although the tool MarineMap is no longer maintained, the data are publicly available and archived on the Oregon Coastal Atlas and distributed through the Oregon Ocean Information website.

EXAMPLE: Local Knowledge Fishery Maps

The coastal program worked with Oregon Coastal Zone Management Association, Ecotrust, and Oregon Sea Grant Extension Program to obtain information from fisherman, since they are the

principal ocean users likely to be affected by energy development. Department staff members met with local fishing groups to provide a clear rationale for their involvement but then let the groups find a comfort level about participating and revealing their fishing areas. Gradually, fishermen themselves saw value in working with the state. For nearly three years, coastal program staff members worked with the Oregon Coastal Zone Management Association, Ecotrust, and Oregon Sea Grant to work directly with fishermen to map the commercial and recreational fishery areas for each port. A technical team from Ecotrust met with individual fishermen in local ports and used a method whereby fishermen were asked to place 100 pennies on maps to show location and relative value of areas that they fish. The Ecotrust team interviewed over 200 commercial fishermen, 60 charter boat operators, and 230 recreational fishermen in ports from Astoria to Brookings and blended individual fishery information into maps that masked individual fishery data and showed areas important to each port, as well to various fishery sectors. The geospatial data were used in community workshops to gain further input.

Territorial Sea Plan Amendment (2013)

The coastal management program successfully led an open participatory process with over 100 public meetings to develop a marine renewable energy plan that strived to address everyone's concerns to the maximum extent possible. Department of Land Conservation and Development staff members provided recommendations for adoption by the Land Conservation and Development Commission that were based on input from Territorial Sea Plan Advisory Committee, Ocean Policy Advisory Council, and the public. The amendment and maps went before the commission and the amendment and maps were adopted on January 24, 2013. Stakeholders with whom the evaluation team met with noted that the engagement process was being looked at as a model for other planning efforts. It should be noted that the Office for Coastal Management did receive a public comment from Bernard Bjork, grassroots coordinator of the Lower Columbia Alliance for Sustainable Fisheries, that raised specific concerns about the safety of fishermen because of the Camp Rilea Renewable Energy Facility Suitability Area.

The department submitted the amendment to NOAA, which approved the incorporation into the federally approved program in April 2014. The Office for Coastal Management commends the Oregon Coastal Program for being a national leader in planning for marine hydrokinetic energy. The coastal program engaged in an extensive outreach effort to work with stakeholders and the public to develop Part 5 of the Territorial Sea Plan, which identifies three renewable energy facility suitability areas where industry should consider siting marine renewable energy projects and incorporates project review standards to protect fisheries, ecological resources and marine habitat, recreation uses, aesthetic resources and other beneficial uses of the territorial sea.

EXAMPLE: Camp Rilea Renewable Energy Facility Suitability Study Area

The Joint Agency Review Team review process was successfully applied to the first Renewable Energy Facility Study Area application for a marine renewable energy test project at Camp Rilea. M3 Wave Energy Systems of Salem, Oregon, requested a temporary test deployment of its water pressure device, which operates on the seafloor in the nearshore area at approximately 50 feet in depth. In accordance with the requirements of the Territorial Sea Plan, the Department of State Lands convened the team to review the application. The team, consisting of state agencies and the affected local government, with federal agencies also in attendance, met twice to review the application and discuss the proposed action with the applicant. State agencies, including the coastal program, then forwarded their recommendations to the Department of State Lands for its consideration. Through this unified and coordinated process, the Department of State Lands was able to obtain the necessary input from the various agencies and issue the necessary authorizations for the project. This included obtaining the financial assurance for bonding the project as required under Department of State Land rules. The project was also authorized under a U.S. Army Corps of Engineers general permit, and the coastal program provided federal consistency concurrence. The entire project review process took less than seven weeks from the time the application was submitted. The wave energy test device was deployed for three weeks and decommissioned successfully in September. The company reported that the device performed beyond the modeled expectations, with no problems during deployment, operation, and recovery of the device. The permit was successfully completed and the bond terminated.

Geographic Location Description

The Oregon Coastal Management Program worked with NOAA and the Bureau of Ocean Energy Management to establish a geographic location description for federal activities related to marine renewable energy development. A geographic location description is a specific area where listed federal license or permit activities have been demonstrated to have reasonably foreseeable effects on a state's coastal uses or resources. Oregon's geographic location description is specific to federal activities related to marine renewable energy development and extends from the boundary of the state's territorial sea out to the 500-fathom bathymetric contour. In 2015, NOAA approved the request, ensuring that any marine renewable energy projects within the federal waters delineated in the geographic location description would be subject to the federal consistency review process. Oregon is only one of a few states with a federally approved geographic location description.

Accomplishments and Recommendations – Program Administration

Accomplishment: The Oregon Coastal Program's exceptional level of effort to update the federally approved program includes the submission and approval for 16 state statutes, 22 local jurisdiction comprehensive plans, and five other state policies that are now incorporated into the approved program, ensuring that local and state enforceable policies can be used for federal consistency.

Accomplishment: The Oregon Coastal Program is a national leader in planning for marine hydrokinetic energy. The coastal program engaged in an extensive outreach effort to work with stakeholders and the public to develop Part 5 of the Territorial Sea Plan, which identifies three renewable energy facility suitability areas were industry should consider siting marine renewable energy projects. It also incorporates project review standards to protect fisheries, ecological resources and marine habitat, recreation uses, aesthetic resources, and other beneficial uses of the territorial sea.

Recommendation: The NOAA Office for Coastal Management recommends that the Oregon Coastal Management Program continue to work closely with sister agencies, including the Oregon Department of Environmental Quality, Oregon Department of Forestry, and Governor's Office to address the remaining gaps in the state's coastal nonpoint program as soon as possible in order to achieve full approval of Oregon's coastal nonpoint program and reinstatement of full funding for the coastal program. The coastal program is also strongly encouraged to work with the Office for Coastal Management to meet the outstanding gaps in its coastal nonpoint program and hold regular (e.g. quarterly) check-ins with NOAA and EPA coastal nonpoint program staff to discuss progress made in achieving these interim benchmarks and full approval of the state's coastal nonpoint program.

Recommendation: The Office for Coastal Management recommends that the Department of Land Conservation and Development ensure adequate staff capacity and knowledge to manage federal grants at the department level and to pursue a higher level of training in federal funding requirements for appropriate additional staff members to ensure that federal funds are managed appropriately, and to provide backup for when staff members are out.

Recommendation: The Office for Coastal Management recommends that the Oregon Coastal Program to be more intentional about developing and communicating the programs' success stories at the local, state, regional, and federal levels.

Recommendation: The Office for Coastal Management recommends that the Oregon Coastal Management Program work with the Office for Coastal Management to create and provide the public with clarifying information that describes the role and responsibilities of the Department of Land Conservation and Development and the networked coastal program partners in executing the federal consistency process.

Recommendation: The Office for Coastal Management recommends that the Oregon Coastal Program to work closely with its NOAA liaison to develop a mutually agreed upon process for submitting and maintaining program changes that will continue the state's efforts to identify enforceable policies in local plans and state policies, and to submit the local plans and state policies to NOAA for review and approval.

Estuary Management Plans

Overview

Oregon's statewide planning law calls for the development of estuary management plans for each of the state's 22 major estuaries. The plans are to "recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands and to protect, maintain, and, where appropriate, develop and restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries." The plans are to be based on inventories of biological, physical, social, and economic data. Counties, in coordination with cities and port authorities, are responsible for preparing estuary management plans. The initial plans were developed over 30 years ago in the 1980s. At that time, the Department of Fish and Wildlife developed a classification system and conducted standardized biological and physical inventories. The required social and economic analyses were conducted on an ad hoc basis by each county, resulting in inconsistent information across jurisdictions.

The plans have been perceived as generally effective in accomplishing both conservation and development objectives but have been relatively static. Local governments and the state have lacked the resources to undertake comprehensive reviews and updates, and there has been relatively limited demand for major waterfront and aquatic area development on Oregon's coast. In many cases, the plans are in need of updating because of changing economic conditions and new priorities and initiatives, such as salmonid recovery, which were largely unanticipated in the original plans.

Throughout the evaluation period, the coastal program has been engaged in a multi-year effort, as part of a 309 strategy, to improve the foundational information and approach for estuary management planning and support communities in their efforts to update plans. The coastal program has worked with partners to collect and analyze data, to use new technology and tools to apply the updated data sets to planning and implementation decisions, and to lay out the regulatory framework for managing estuaries. The coastal program is providing both technical and financial assistance to Coos Bay County to pilot updates of the Coquille River and Coos Bay Estuary Management Plans, building on the new tools and information. The coastal program will be building on lessons learned through its work with Coos County to assist other communities in updating their estuary management plans.

Biological and Physical Inventories

In 2012, the coastal program received funding for a project of special merit to produce estuary and shorelands habitat map information. The coastal program chose to use the newly released Coastal and Marine Ecological Classification Standard, Version 4, to provide a standard framework and common terminology for describing natural and human-influenced ecosystems from the upper tidal reaches of estuaries to the deep ocean. The standard includes substrate, geoform, biotic, and water column components. The coastal program was the first entity to use the newly adopted federal standard on such a broad scale.

To implement the project, the coastal management program brought together a team of staff members and consultants and created a technical advisory committee. The South Slough National Estuarine Research Reserve also supported the project and hosted two workshops with the technical advisory committee. Based on the technical advisory committee's input, the original goal to update the resource inventory data in the original Oregon Estuary Plan Book, with the exception of the Columbia River, was expanded to include many of the minor estuaries, which are ecologically significant, especially for endangered populations of salmon. The project team was able to use digital elevation model products generated from modern LiDAR data to provide a baseline land elevation surface for use in products and to enable better understanding of the landscape context of estuarine features. The team also used orthophotos to classify habitat data and used the input of the advisory committee to develop a process to more efficiently and effectively ground truth the results of the habitat classification.

The coastal program also capitalized on a NOAA Coastal Fellowship project to create an estuaryfocused module for the Coastal Atlas and incorporated the new data layers and associated products into a new Estuary Data Viewer. The viewer is designed to meet the needs of local planners working in and around estuaries. The viewer makes estuary-related data easier to find and allows users to view, overlay, evaluate, and interact with digital data more efficiently while utilizing the large spatial database in the Coastal Atlas. The coastal program also partnered with South Slough to gather input from the advisory committee and local government staff members on draft products and to conduct local government trainings on the use of the products. The coastal program continues to be a national leader in providing coastal data in a usable format through the Coastal Atlas. The data sets and mapping tools are now available to all Oregon estuary planners and managers, and provide a fundamental resource inventory tool to support both updates and improved administration of estuary management plans.

A major improvement over the original resource inventory was the mapping of tidally influenced wetlands. The original habitat maps did not consistently describe the upper extent of estuarine habitats, and in many cases, the upper extent of mapped estuarine habitats was well below areas now understood to be influenced by both saline waters and periodic flooding associated with the tides. The project team developed a method to more accurately and objectively identify areas on the landscape that would be identified as estuarine. The coastal program's method for determining the upper extent of tidal inundation is now being applied in both Washington and California. The coastal program's mapping work and staff expertise were also applied to, and instrumental in, the state's marine reserves process and territorial sea planning process. The coastal program was the first to use the Coastal and Marine Ecological Classification Standard, Version 4, on a large scale and to assist future staff members and other interested parties. They developed a "Core GIS Methods Document" that documented the process of generating the standardized data from the numerous data input sources. The document helps others understand the process and apply it to their own projects.

Assessment of Oregon's Regulatory Framework for Managing Estuaries (2014)

In 2014, the coastal program released this report, which is a qualitative assessment of the current state of the regulatory framework for managing estuaries. The assessment focuses on the state and local authorities that make up the estuary and shoreland management provisions of the Oregon Coastal Management Program. The assessment identifies both challenges and opportunities within the current framework, and provides recommendations for addressing these in a manner that best facilitates the future management needs of Oregon's estuaries. The assessment included input from a number of local planners, a harbormaster, community development directors, a port manager, and the Tillamook Estuaries Partnership.

Social and Economic Assessments

The coastal program published the "Assessment of Trends Affecting Planning for Oregon's Estuaries and Shorelands" in 2014. The assessment highlights and discusses significant social, economic, environmental, and energy trends that may affect planning for future estuary and shoreland uses and activities. The assessment is designed to provide state and local planners and officials with foundational information on the likely forces that communities may need to consider when updating their estuary management plans.

EXAMPLE: Coos Bay Estuary Management Plan Update

Coos Bay County and the City of Coos Bay are working towards updating the Coos Bay Estuary Management Plan. The Partnership for Coastal Watersheds, led by the South Slough National Estuarine Research Reserve and the Coos Watershed Association, is bringing together public- and private-sector citizens to assist with this effort. The coastal program has provided the partnership with both technical and financial assistance. In 2012, the partnership released the "State of the South Slough and Coastal Frontal Watershed Assessment," which included information on the natural resources, physical characteristics, and social and economic trends of the Coos Bay estuary. Building on the initial assessment, the partnership then created, "The Communities, Lands and Waterways DATA SOURCE," an online encyclopedic compilation of all available data describing the socioeconomic and environmental conditions in the Coos Bay area. The data source was developed to provide updated resource information for integration into local comprehensive plans and estuary management plans. The project builds on statewide efforts and includes information specific to Coos Bay. A local planner that the evaluation team met with noted that the information provided has been helpful in ensuring that local elected officials are able to make informed coastal management decisions based on facts. The coastal program is taking information learned from this project and will be applying it to future projects with other communities.

Next Steps

The coastal program is continuing to expand on the initial data collection effort through a second ongoing competitive project of special merit. The first project focused on coast-wide data sets. The second phase of the project will create a geospatial database for each estuary by utilizing location-specific data. The result will be a comprehensive product, tailored for local governments and other agency partners, that will provide the technical foundation for updated estuary management plans. Coastal cities and counties will be able to use up-to-date technical and scientific data in their plans and to review and amend policies and regulations through an improved knowledge of the ecosystem. The Office for Coastal Management commends the Oregon Coastal Program for developing a strong technical foundation that will enable the state and local governments to incorporate up-to-date scientific data into their plans and to review and amend policies and regulations to incorporate improved knowledge of the ecosystem. Providing data in the Coastal and Marine Ecological Classification Standard is an important tool to inform coastal management decision-making; as information is updated over time it will enable measurable assessments and monitoring of cumulative and secondary impacts to each estuary

and coastwide. Revised estuary management plans will help improve the quality and certainty of management decisions for critical estuarine and related wetland resources.

The Office for Coastal Management encourages the coastal program to be strategic in prioritizing which estuary plans to update, encouraging communities that could most benefit to update their estuary management plans earlier, and investing their resources in communities committed to updating their plans. The coastal program can provide valuable technical and financial assistance to local communities, but resources are limited. The Office for Coastal Management also encourages the coastal program to pursue the development of updated standard biological and physical assessments for the Columbia River Estuary as resources allow, enabling this region to benefit from the up-to-date data and tools.

Accomplishments – Estuary Management Plans

Accomplishment: The Oregon Coastal Program is capitalizing on its strengths in data management and planning to develop a strong foundation for communities to assist them with updating the estuary management plans and enabling them to make decisions based on current information.

State and Local Partnerships and Coastal Hazards

Overview

The Oregon Coastal Management Program is a networked coastal program that integrates authorities of local governments and state agencies, with the Department of Land Conservation and Development serving as the lead state agency. Coastal program staff members work closely with coastal local governments and state agency partners to successfully implement the state's federally approved coastal program. The coastal program's field representatives, in particular, play a key role in providing technical and policy advice to local governments. The coastal program works with its partners to address the full array of coastal issues, including water quality, coastal habitat, coastal hazards, government coordination and public involvement, public access, and community development.

Coastal Management Training

To support coastal management at the local level, the coastal program developed an online training program for local government staff members and officials that has been well received and widely utilized by citizen planners and new local government staffers. The training program covers urban and rural planning, land use regulations and decision-making, the state's land management and coastal management program, and the management of coastal resources in Oregon. The purpose of this training is to help citizens and decision-makers have a greater understanding of Oregon's Statewide Planning Program and Coastal Management Program and how they relate to local government planning efforts. The training is conveniently broken into larger topic areas, and within those topic areas are short videos a few minutes long. One

stakeholder who the evaluation team met had used the short training clips at commission meetings to educate commissioners about the state's land use and coastal programs and had received positive feedback that they were helpful.

The Oregon Coastal Program (as further discussed in the "Evaluation Metrics" section) set a target of 20 local government land use planning training sessions conducted by local governments, with the support of coastal program staff, utilizing the online training course, over the five-year period 2012-2017. During the first three years, staff completed 24 training sessions, exceeding the five-year target.

Coastal Planners Network Meetings

The coastal program has also hosted two Coastal Planners Network Meetings each year for local government staff members. The full-day meetings feature topics of interest to local government planners and state and federal resource managers. The meetings also provide opportunities for sharing and discussions of problems, issues, and success stories. It is anticipated that future network meetings will be reduced or eliminated because of the loss of 306 funding.

Projects with Partners

During the majority of the evaluation period, the coastal program was able to provide both technical and financial assistance for a wide range of projects supporting coastal management at the local and state levels. For example:

City of Astoria – Riverfront Vision Plan

In 2008, in the face of increasing development pressures, the City of Astoria recognized the need to develop a comprehensive approach in planning for the future of its riverfront. Supported by a technical assistance grant from the coastal program, the city initiated a process to develop a community vision for balancing future development of Astoria's waterfront, looking to strike a balance of accommodating new development while protecting the working waterfront and the city's historic character. The result of the nearly two-year planning effort was the Riverfront Vision Plan, a plan that promotes a mix of uses on the riverfront that will provide public and visual access, support the city's economy, and maintain Astoria's working waterfront character. Among other recognition, the City of Astoria received NOAA's Walter B. Jones Award for excellence in local government for its work on the Riverfront Vision Plan.

City of Garibaldi – Waterfront Rezoning

Located at the mouth of Tillamook Bay, the City of Garibaldi is a community focused on its harbor. The city's waterfront district has historically supported many of the area's important economic enterprises, including seafood processing, sport and commercial fishing activities, wood products manufacturing, and tourism and recreation uses. Following larger regional trends over the past two decades, the city's economy has transitioned from its historical resource base to include larger components of service- and tourism-based activities. In response to these trends, in 2011 the city initiated a process to evaluate comprehensive plan and zoning designations for the waterfront area, seeking to capitalize on potential redevelopment opportunities while preserving critical water-dependent development acreage for port and maritime uses.

Supported by a coastal technical assistance grant from the coastal program, the city worked closely with the Port of Garibaldi and landowners in the affected area to analyze the overall need for and locational suitability of water-dependent development sites in the city. This examination was completed in early 2012, and was followed by a package of comprehensive plan and zoning amendments designed to implement the recommendations identified in the analysis. These amendments include revisions to the city's two principal waterfront zoning districts and changes to the comprehensive plan and zoning map for the waterfront area. The result of these amendments is a higher level of protection and certainty for identified critical water-dependent development sites, and enhanced opportunities for water-oriented and other mixed-use development in the waterfront area. These plan updates will greatly improve the ability of the city and port to encourage and facilitate appropriate development of this major community asset.

City of Bandon – Riparian Area Resources Inventory

A coastal program staff member worked with City of Bandon planning staff members to complete an inventory of significant riparian resources under Goal 5 and to develop clear and objective standards for identifying significant resources. The city applied the Goal 5 "safe harbor" protection criteria to areas that the city identified as significant, which allowed the city to adopt restrictions on activity in riparian areas of fish-bearing and non-fish-bearing streams that provide environmental and scenic benefits or have a high potential for restoration.

North Bend – Stormwater Utility Asset Mapping

The City of North Bend initiated the process to develop a geographic information system (GIS) with financial assistance from the coastal program. That work resulted in basic mapping layers that include tax lots, zoning districts, public facilities, and aerial imagery. A second grant enabled the city to build on the system to include a detailed map and database of the city stormwater conveyance system. Having an accurate GIS system enabled the city to better plan improvements to enhance flood control and improve the quality of stormwater entering the estuary.

Multiple Partners – Forest Land Conversion Memorandum of Agreement

Coastal program staff members worked with the Oregon Departments of Fish and Wildlife, Parks and Recreation, Environmental Quality, Agriculture, and State Lands to develop and conduct training on interagency coordination during conversions of forestlands to other uses. The trainings were intended to meet commitments within the agreement on forestland conversions signed by the participating agencies. The objective was to improve communication between agencies and each agency's understanding of other state agencies' regulatory programs that applied when forestland passed into another use that was not regulated under the state Forest Practices Act. The primary focus was protection of water quality, but protection of habitat and scenic resources was also addressed. Improving communication and oversight during forestland conversions is one component of the state's Coastal Nonpoint Pollution Control Program. Three trainings were held in the coastal nonpoint pollution management area, and four other trainings were held throughout the state.

Multiple Partners – Public Access Inventory

Since 1990, the coastal program has conducted a comprehensive field survey of coastal access site locations throughout the coastal zone, and the inventory is available on the Coastal Atlas and as a mobile friendly web application. Public access data are not only used by members of the public, but also others, such as emergency responders and state agency personnel. Several state agencies were collecting public access data, and multiple data sets were available for different uses. In addition, it was apparent that data sets overlapped and differences in data collection methods could result in access location information being different in different data sets. The Oregon Coastal Program began working with state agency partners to coordinate procedures for future public access inventories with those of other agencies. To further this effort, the coastal program applied for and received an Oregon Data Development Framework Implementation Team grant to better coordinate statewide efforts to collect and maintain shoreline access data. The coastal program is now working with partners to develop an integrated statewide public access database and an ArcGIS Collector application for field verification of access locations. The result will be an integrated statewide shoreline access database, maintainable by all major agency partners and inclusive of all coastal public access locations.

Coastal Hazards

The Oregon Coastal Management Program continues to be a national leader in assisting state and local community efforts to plan and prepare for and address coastal hazards, including tsunamis, climate change, and coastal erosion. The program's efforts include development of necessary hazard data, creation of important education and outreach materials, construction of necessary guidance and model land-use code provisions related to coastal hazards, and local government adoption of coastal hazard land use provisions.

Preparing for a Tsunami

Tsunami Inundation Mapping

In the mid-1990s, Senate Bill 379 directed the Department of Geology and Mineral Industries and its board to adopt a tsunami inundation line, and established requirements and restrictions for certain development within the identified inundation zone. The Department of Geology and Mineral Industries, using federal funding awarded by NOAA, released a new generation of tsunami inundation maps in 2012-13 to help prepare communities for the next Cascadia Subduction Zone earthquake and tsunami. The maps incorporate the latest science and high-

resolution LiDAR and topographic data and provide Oregon coastal communities with greatly improved information on the level and extent of risk from both distant and local (Cascadia) tsunami events. The updated maps and associated requirements are important considerations for local governments' comprehensive planning efforts and the development of implementation measures as required by Oregon Statewide Planning Goals 7, 17, and 18. The coastal program assisted the Department of Geology and Mineral Industries in coordinating with local governments during the publication process.

Beat the Wave

The coastal program is also supporting an effort to increase tsunami resilience through the development and use of new state-of-the-art tsunami time and distance modeling, Beat the Wave, from the Department of Geology and Mineral Industries. Beat the Wave not only provides key information on evacuation facility planning and development, but also provides communities with a planning tool to prioritize needed improvements and determine areas of focus within their communities. This work has been completed in a number of communities on the north coast, including Cannon Beach and Seaside. The coastal program is looking to begin work with a number of additional communities, including Waldport, Florence, Coos County, and Tillamook County. The evaluation team heard from stakeholders that there was a very high level of interest in communities to conduct Beat the Wave time and distance modeling, and communities placed high value on these efforts. Unfortunately, the decrease in Section 306 funding has limited the financial assistance that the coastal program is able to provide to support this important effort to prepare for future tsunamis.

Oregon Resilience Plan

Directed by the Oregon Legislative Assembly, *The Oregon Resilience Plan* was completed and published in February 2013. The plan reviews policy options, summarizes relevant reports and studies by state agencies, and makes recommendations on policy direction to protect lives and keep commerce flowing during and after a Cascadia earthquake and tsunami. Coastal program staff members contributed significantly to Chapter 3 – Coastal Communities and Associated Tsunami Resilience Recommendations. The plan has received widespread notice in the media and in Oregon's coastal communities. As a result, recognition of the need to plan for the impacts of a Cascadia tsunami event has increased substantially in many at-risk coastal communities.

Guidance for Communities

In 2014, the coastal program released *Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities.* The guide builds on the new Department of Geology and Mineral Industries maps and assists vulnerable communities with incorporating tsunami resilience measures into their local land use programs. The land use guide is designed to be tailored by communities to address their individual tsunami risk and location. It provides comprehensive information for use on land use planning approaches to reduce tsunami hazard risk and implement important land use resilience measures. The guidance was developed in partnership with a diverse advisory committee composed of participating State of Oregon agencies and organizations, local government representatives, and a multidisciplinary consulting

firm. During development of the document, the coastal program and its consultant searched nationally and internationally for examples of such a document and could not find one.

In 2016, chapter 6 of the guide was updated to include detailed guidance on tsunami evacuation facilities improvement planning. The plan, which is similar to a land-use public facility plan, includes identification of risks, assessing vulnerability, determining evacuation needs, designating existing and needed routes, establishing system standards, identifying needed improvements, and estimating costs.

Local Government Tsunami Planning

The coastal program is actively working with coastal local governments to incorporate provisions of the guide into local comprehensive plans. The department has placed a priority on supporting community land-use tsunami preparation and on providing tools to help communities become more resilient to this catastrophic hazard. For example, the coastal program had worked with Coos County, which adopted general tsunami resilience comprehensive plan policies and the applicable tsunami inundation maps. The county is now working, with coastal program assistance, on Phase Two amendments that will include land use resilience development code provisions. The coastal program is also working with Curry County on an all-hazards land-use planning effort that includes utilization of the Tsunami Land Use Guide to develop comprehensive plan policies and code provisions to increase resilience to a tsunami event.

The coastal program will be using Section 309 funds (2016-2017) to support four local jurisdictions in developing hearing-ready draft comprehensive plan elements and land use regulations that address tsunami hazard areas or implement the latest-generation coastal risk zone maps for chronic hazards. The work will be based on the guidance contained in *Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities* and the *Model Coastal Erosion Overlay Zone* guidance developed by the coastal program. The coastal program was also successful in obtaining a competitive project of special merit (2016-2017) to assist an additional six jurisdictions prepare for a Cascadia Subduction Zone earthquake and tsunami. The competitive project also calls for the development of a set of comprehensive tsunami resilience tools, which include such things as a tsunami-hazard overlay zone and other land-use-related tsunami resilience provisions.

Climate Change

Climate Change Adaptation Framework

In October 2009, Governor Kulongoski asked the directors of several state agencies, universities, research institutions, and extension services to develop a climate change adaptation plan. The coastal program's coastal conservation coordinator was the lead author of the Climate Change Adaptation Plan Framework in 2010. The plan was developed through the collaborative effort of the directors of several state agencies, universities, research institutions, and extension services, and provides a framework for state agencies to identify authorities, actions, research, and resources needed to increase Oregon's capacity to address the likely effects of a changing climate. The plan identifies a broad range of expected changes to Oregon's climate in the coming

decades. It identifies risks, lays out short-term priorities, and provides momentum and direction for Oregon to prepare for future climate change.

In 2007, the Oregon State Legislature charged the Oregon Climate Change Research Institute with assessing the state of climate change science, as it relates to Oregon. The report was published in late 2010. The framework was developed in close consultation with the research institute to ensure that it is based on sound science and the best available expertise about the likelihood and timing of climate changes in Oregon.

Clatsop and Tillamook Counties - Regional Framework for Climate Adaptation

In 2014, the coastal program and Oregon Sea Grant initiated a collaborative effort on the north coast that involved federal agencies, state agencies, Tillamook and Clatsop Counties, cities, and nongovernment organizations in planning for climate change. The effort was based on the Oregon Climate Change Adaptation Framework developed in 2010 and was designed to step down the framework to the local planning scale. The effort was a case study to use a broad planning framework that integrates climate change, hazards planning, natural resources, and watershed management practices to build capacity at the state and local level to plan for climate variability and change.

The project led to the development of the Regional Framework for Climate Adaptation – Clatsop and Tillamook Counties. The framework provides reliable information to support planning and actions to address the likely effects of climate change on coastal communities. The framework identifies priority climate risks, management objectives for climate adaptation, and implementation mechanisms that can be used to achieve those objectives. Typically, small communities have not included such considerations as continuity and recovery planning in their plans, and the additional focus on post-disaster recovery could direct and influence future planning efforts for land use and infrastructure development.

The South Clatsop County Resilience Guide—Guidelines for Achieving Community Resilience

The coastal program helped support the development of the South Clatsop County Resilience Guide, a document that provides information about community resilience and a structured approach that can be used by communities to improve their resilience to disturbances like natural hazards. The guidelines present a broad-scale frame for thinking about community resilience, and include the use of a resilience assessment based on resilience elements and a set of aspirational goals under each element. The guidelines are a resource for other communities that may be considering planning for community resilience. The guide was supported by a grant from NOAA's Coastal Community Resilience Networks program and produced by the Oregon Partnership for Disaster Resilience through a project that included Oregon Sea Grant.

General Hazards

The Oregon Coastal Management Program has successfully supported a number of communities in their efforts to adopt new geological report standards, new coastal erosion hazards risk maps and associated coastal hazard overlay requirements, new GIS-based coastal shorelands boundary

mapping, and revised Goal 17 shoreland requirements. The coastal program has provided funding, technical assistance, and data and tools to help communities address coastal hazards.

Model Coastal Hazards Overlay Zone

Coastal program staff members prepared a model ordinance in an effort to further assist local governments to address increasing chronic coastal hazards. The code language, or portions thereof, is intended to be used as an overlay zone and can be modified as needed to fit with applicable communities and their zoning codes. The model overlay zone was designed to be used with Department of Geology and Mineral Industries' risk zone maps and analyses but could be modified to be used with other credible regional hazard maps and analyses. Developing model codes that can be used by all coastal communities as a base for their planning efforts is a cost-effective method of providing technical assistance.

Neskowin in Tillamook County – Planning for Chronic Hazards

The unincorporated community of Neskowin in Tillamook County faces significant chronic erosion. The coastal program supported the county and community in the development and adoption of the Neskowin Coastal Hazard Adaptation Plan. The partners created a Neskowin Hazards Committee, a core group of citizens that was chaired by a county commissioner and supported by the county and state agency partners, including the coastal program and Parks and Recreation Department. The coastal program was able to provide grant funds to assist in developing the plan and an engineering report regarding potential hard and soft erosion-control solutions to protect the village and maintain the beach. The committee was also able to utilize the coastal erosion model code.

The advisory committee implemented an extensive and effective education and outreach effort to the Neskowin community. As a result, the community was generally informed and supportive of this effort. The committee developed a plan that acknowledges the hazards and changing beach environment, and the value of land use policy and ordinance changes to safeguard people and property and protect the coastal resources. The land use ordinance changes were focused on helping the community become more resilient to increasing coastal erosion hazards. The public's engagement in the effort led to the amendments being adopted with very few dissenting comments. The amendments were appealed by two development interests to the Land Use Board of Appeals, but the board determined that the amendments were legally sound. The successful project has generated widespread interest on the coast, and the process provides a blueprint for the success of similar efforts in other communities.

Protective Structure Eligibility Inventory

The coastal program also completed an inventory to determine and make an easily accessible and accurate listing of all beachfront lots that are eligible for a protective structure. In Oregon, beachfront protective structures are prohibited except to protect "development" that existed prior to January 1, 1977. The definition of development is detailed and includes a number of nuances that can make it difficult to determine if a specific development is "eligible" to apply for a beachfront protective structure. Historically, it had been difficult for local governments to make accurate eligibility determinations and even harder for the public to have any certainty about

beachfront protective structure eligibility. The newly completed inventory is a GIS-based parcelby-parcel preliminary eligibility determination for every parcel along the Oregon coast. The effort began in 2004 and was completed in 2015. The inventory is being used by many coastal local governments in their Goal 18 eligibility determinations, and coastal program staff members are working with all local governments to further encourage them to utilize the inventory and adopt it as their local comprehensive plan eligibility inventory.

Dike and Levee Database

The coastal program worked with the Office for Coastal Management to create a geospatial database of dikes and levees in Oregon's major estuaries. Using LiDAR, aerial photography, and a variety of other map products, the coastal program created a draft data layer of these hydromodification structures and classified them into categories of levees. The draft maps were verified through fieldwork and participatory mapping methods with local experts. Special districts responsible for dike maintenance were found in local government historical records, and the boundaries of these districts were also included in the maps, along with a point layer for tide gates and a polygon layer representing land influenced by levees.

The inventory is being used by coastal management decision makers, including nonprofit organizations and government agencies that conduct wetland restoration work, to prioritize future projects. The inventory is also being used to create more accurate predictions of what marshes and the coast would look like under different sea level rise scenarios.

Geological Reports

The coastal program provided funding and technical support to the Department of Geology and Mineral Industries' efforts to provide guidelines for development to reduce hazard risks. "Geological Report Guidelines for New Development on Oceanfront Properties" was produced by a cross-agency workgroup, the Coastal Processes and Hazards Working Group. The guidelines include a list of geologic factors, analyses, and recommendations that should be included in geologic reports for new development on oceanfront property, as well as property close enough to the ocean to be influenced by coastal geomorphology and ocean-caused erosion. This document is a resource for local government review and ordinance updates, geologic and engineering consultants, and those interested in coastal property. The working group also produced the "Geological Report Guidelines for Shoreline Protective Structure Applications." The guidelines include a list of considerations to be included in geologic reports for oceanfront shoreline protective structures. It provides an additional resource for local government review and ordinance updates, Parks and Recreation Department Ocean Shore Program staff members, property owners, and geologic consultants.

Accomplishments and Recommendations – State and Local Partnerships and Coastal Hazards

Accomplishment: The Oregon Coastal Program has provided financial and much-valued technical support to local communities to support local efforts to implement and continually improve coastal management in the state.

Accomplishment: The Oregon Coastal Program is a leader in helping the state prepare for coastal hazards, including developing hazard planning guidance for communities; collecting, analyzing and providing hazards-related data in a usable format for local governments and state agencies; serving as lead author for the state's Climate Adaptation Framework and working with two counties to develop the first regional framework for climate adaptation; and providing financial and technical assistance to help communities plan for a tsunami, climate change, and coastal erosion.

Recommendation: The Oregon Coastal Program's expertise and support of coastal hazard planning efforts is highly valued by state agencies and local governments. The Office for Coastal Management recommends that the coastal program continue its important efforts to better prepare Oregon for existing and future coastal hazards.

Evaluation Metrics

Beginning in 2012, state coastal management programs began tracking their success in addressing three evaluation metrics specific to their programs. The evaluation metrics include a five-year target and provide a quantitative reference for each program about how well it is meeting the goals and objectives it has identified as important to the program.

METRIC 1

Goal: Modern estuary management plans that accurately reflect current ecosystem, resource, and economic conditions.

Objective: By 2016, the Oregon Coastal Management Program will provide financial, technical, and information resources to targeted local governments to revise estuary management plans for deep draft development estuaries to incorporate and reflect current inventory information related to estuarine and shoreland habitats, uses, and conditions.

Strategy: A central focus of the Oregon Coastal Management Program is to ensure that planning and land use decisions made by program partners protect coastal resources such as estuaries and shorelands, as required by the statewide planning goals. Local estuary management plans are a critical tool to guide local decisions that protect estuarine and shoreland resources.

Performance Measure: The number of local estuary management plans for deep draft development estuaries that have been revised.

Target: One (1) estuary for which relevant local governments have revised and adopted updated provisions of an estuary management plan.

Year 1 Results: 0

Year 2 Results: 0

Year 3 Results: 0

Year 4 Results: 0

Discussion: Progress towards this evaluation metric is extensively discussed in the "Estuary Management Plans" section. The coastal program is supporting efforts on the southern coast to update both the Coquille and Coos Bay estuary plans.

METRIC 2

Goal: Incorporation of all relevant changes to state statutes, administrative rules, and local government comprehensive plans and implementing regulations into the Oregon Coastal Management Program.

Objective: The Oregon Coastal Management Program will identify all unapproved program changes as high, medium, or low priority. By 2016, the program will submit 100% of the high and medium priority program changes from local government comprehensive plans and ordinances to the NOAA Office for Coastal Management for review and approval.

Strategy: The design of the Oregon Coastal Management Program relies upon an integrated, effective network among all levels of government to support and carry out the mission of the program. Timely integration of changes to local and state agency partner plans and programs into the Office for Coastal Management Program is vital to maintaining this effective network.

Performance Measure: The number of program changes submitted to NOAA Office for Coastal Management for approval.

Target: Thirty-three (33) local government program change submittals.

Year 1 Results: Three (3) local program changes were submitted to NOAA OCRM for approval.

Year 2 Results: Five (5) local program changes were submitted to NOAA for approval.

Year 3 Results: Six (6) local program changes were submitted to NOAA for approval.

Year 4 Results: Eight (8) local program changes were submitted to NOAA for approval.

Discussion: To date, the department has made good progress, and 22 local program changes have been submitted and approved. The coastal program has met 67% of its target. Because of recent cuts in funding, the program may have challenges meeting the five-year target.

METRIC 3

Goal: Coastal communities with a high level of technical and professional capacity to support land use planning and coastal stewardship responsibilities.

Objective: By 2016, coastal local governments, with the support of Department of Land Conservation and Development staff members, will have conducted 20 land-use planning training sessions for staff or decision makers utilizing the Oregon Coastal Management Program online training course.

Strategy: As a fully networked program, the capacity of local governments to fulfill their land use planning responsibilities is essential to the success of the Oregon Coastal Management Program. The Oregon Coastal Management Program places a high priority on providing technical and financial support to help build and sustain the land use planning capacity of our local government partners.

Performance Measure: The number of local government land use planning training sessions conducted utilizing the Oregon Coastal Management Program online training course.

Target: Twenty (20) land use planning training sessions for local government staff members or decision makers utilizing the Oregon Coastal Management Program online training course.

Year 1 Results: Thirteen (13) land use planning training sessions for local government staff members or decision makers utilizing the Oregon Coastal Management Program online training course were conducted.

Year 2 Results: Six (6) land use planning training sessions for local government staff members or decision makers utilizing the Oregon Coastal Management Program online training course were conducted.

Year 3 Results: Six (6) land use planning training sessions for local government staff members or decision makers utilizing the Oregon Coastal Management Program online training course were conducted.

Year 4 Results: No data

Discussion: The program has exceeded the five-year target in its first three years. Unfortunately, the coastal program is no longer collecting data on this measure. The coastal program had previously had local governments report on this measure as part of their local planning assistance grants. The local planning assistance grants have been eliminated because of funding cuts. The coastal program continues to support the online training tool, and in several cases regional representatives have assisted in conducting local training sessions; however, staff efforts are not being tracked.

Conclusion

For the reasons stated herein, I find that Oregon is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its approved Oregon Coastal Management Program.

These evaluation findings contain six recommendations. Recommendations must be considered before the next regularly scheduled program evaluation but are not mandatory at this time. Recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the Oregon Coastal Management Program that may have implications regarding the state's financial assistance awards. However, it does not make any judgment about or replace any financial audits.

Jeffrey L. Payne, Ph.D.

Date

Jeffréy L. Payne, Ph.D. // Director NOAA Office for Coastal Management

Appendix A: Response to Written Comments

Denise Lofman, Director

Columbia River Estuary Study Taskforce (CREST)

Ms. Lofman noted that the Columbia River Estuary Study Taskforce (CREST) has been a long-time partner with the Department of Land Conservation and Development and that federal Coastal Zone Management Act funds have helped to support their work assisting the cities and counties within the Lower Columbia Estuary. She stated that CREST's assistance is vital to these jurisdictions, since it provides local planning departments with expert coastal planning knowledge for implementing the Columbia River Estuary Regional Management Plan.

She explained that without the same continual level of funding support, CREST would be unable to fully assist local jurisdictions in addressing cumulative impacts to coastal resources. She noted that coastal program funding enabled CREST to secure additional support via grants and other funding sources to implement projects that ensure water quality and protect fish and wildlife and other resources vital to the sustainability of both the community and the environment. She provided several examples of ongoing projects that could be impacted that included enhancing wetland protection, acquiring coastal wetland and floodplain habitat, climate adaptation planning, and updating the Regional Dredge Material Management Program.

Ms. Lofman also stated that data and information developed by the coastal program, such as hazard risk zone mapping, tsunami inundation maps, and model codes and guidance documents, are critical information sources that have already benefitted the Columbia-Pacific region, and that will continue to pay dividends for years to come. She noted that facilitated collaborative work, such as the Regional Framework for Climate Adaptation – Clatsop Tillamook Counties, is very important for building local capacity to mitigate hazard risk and adapt to climate change.

She also noted that increased financial and technical support is needed for local governments to update habitat and wetland protection measures and estuary management plans, and to update land use plans and coordinate permitting for water-dependent development in the North Oregon Coast and the Columbia River Estuary.

She emphasized that a lack of funding, exacerbated by the 30 percent coastal program funding reduction, will undermine local governments' ability to carry out functions such as coordinated permitting and basic policy and code updates to address hazards. She also highlighted other impacts from the funding cuts, including a reduction in local government capacity to carry out work on climate adaptation and hazard mitigation.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Lofman for her comments. The office concurs with Ms. Lofman that the loss of 30 percent of Section 306 funding will impact the ability of the networked coastal management program to continue initiatives and complete valuable projects, particularly at the local level. The evaluation

findings contain a recommendation that the program pursue full approval of their Coastal Nonpoint Pollution Control Program so that full Section 306 funding may be reinstated.

Doug Heiken Oregon Wild Eugene, Oregon

Mr. Heiken on behalf of Oregon Wild offered the following comments. During federal consistency reviews, the feds often rely on the coastal zone programs developed by the states, and in Oregon, this includes the statewide land use program. He states that Oregon's coastal land use program often falls short and encourages NOAA to recommend that Oregon "put some teeth in its land use program" and use the concept of carrying capacity to evaluate the appropriateness of projects in the coastal zone. He noted that carrying capacity is a concept called out in several of the state's land use goals.

Mr. Heiken expressed grave concern regarding climate change and levels of CO2 in the atmosphere and the ocean and the associated impacts such as ocean acidification. He states that the concept of "carrying capacity" is highly relevant in the context of global warming because the state defines "carrying capacity" as a "Level of use which can be accommodated and continued without irreversible impairment of natural resources productivity, the ecosystem and the quality of air, land, and water resources." He noted that there is large body of science indicating that we are already beyond the level of CO2 in our atmosphere that can be described as safe. He states that growing forests is a positive action to address climate change.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Mr. Heiken for his comments. During the evaluation period, the coastal program has played a large role in state efforts to plan for and adapt to climate change and sea level rise and is assisting local communities plan for and adapt to climate change and associated hazards. In addition, the coastal program also works with communities to improve planning and complete projects to improve natural area protection. Both efforts are discussed in the "State and Local Partnerships and Coastal Hazards" section. The state also provides state matching funds through the Oregon Watershed Enhancement Board for projects to conserve and improve local streams, rivers, wetlands and natural areas. The Office for Coastal Management has found that the Oregon Coastal Management Program is successfully implementing and enforcing its federally approved coastal management program.

Carol Hanrahan Roseburg, Oregon

Ms. Hanrahan calls for NOAA to support citizen attempts to fight for clean air. She states that she would like to not have to worry about any pollution being added to the air, whether it's fallout from other countries or the U.S.

NOAA Office for Coastal Management Response: The office thanks Ms. Hanrahan for her comments. The U.S. Environmental Protection Agency has purview over air quality under the Clean Air Act.

Nina Bell, Executive Director Northwest Environmental Advocates

Ms. Bell provided comments and four attachments. The attachments are:

- Declaration of Jonathan J. Rhodes in support of the U.S. Environmental Protection Agency's and the National Oceanic and Atmospheric Administrations' proposal to disapprove the state of Oregon's Coastal Nonpoint Pollution Control Program, dated March 14, 2014.
- Declaration of Christopher A. Frissell, Ph.D. in support of the U.S. Environmental Protection Agency's and the National Oceanic and Atmospheric Administrations' proposal to disapprove the state of Coastal Nonpoint Pollution Control Program for failing to adopt additional management measures for forestry, dated March 14, 2014.
- Northwest Environmental Advocates letter to John King of NOAA and Michael Bussell of U.S. EPA regarding Oregon Coastal Nonpoint Pollution Control Program; EPA and NOAA's Interim Approval of Agricultural Management Measures for Oregon, dated May 2, 2012
- Washington Forest Law Center letter to Joelle Gore of NOAA regarding Comments on EPA's and NOAA's proposal to find that Oregon has failed to submit an approvable coastal nonpoint pollution control program, dated March 20, 2014.

Ms. Bell states that NOAA must find that the state of Oregon is not eligible for any funding under the coastal zone management act for the following reasons:

- (A) that in order to approve a state's management program, NOAA must find that the program "contains enforceable policies and mechanisms to implement the applicable requirements of the Coastal Nonpoint Pollution Control Program (CNPCP) of the State required by section 1455b of this title," namely the Coastal Zone Act Reauthorization Amendments (CZARA). Id. at § 1455(d)(16).
- (B) CZMA section 306(b) requires that for a state to receive grant funding, a state's program must meet all applicable requirements of the statute and has been approved in accordance with subsection (d) of Section 306. 16 U.S.C. § 1455(b). One of the requirements of subsection (d) is "The management program contains enforceable policies and mechanisms to implement the applicable requirements of the Coastal Nonpoint Pollution Control Program of the State required by section 1455b of this title. (16 U.S.C. § 1455(d)(16)).
- (C) It is failing to adhere to its management program, address the coastal management needs identified in Section 303(2)(A-K) and adhering to the conditions of its grants to the extent applicable because it does not have an approved CNCP.

Ms. Bell states that the 2006 evaluation findings of the Oregon Coastal Management Program are insufficient and do not meet the CZMA requirements for evaluations of coastal programs for the following reasons:

- A. The 2006 evaluation failed to include a clear statement and discussion that the program did not have a fully approved CNPCP due to Oregon's failure to adequately control nonpoint source pollution in coastal watersheds.
- B. The 2006 evaluation did not discuss protection of water quality from nonpoint source pollution as identified in Section 303(2) including: at subsection (A) the protection of natural resources including estuaries, fish and wildlife and their habitat; at subsection (C) and (H), the consideration of the views of affected federal agencies, in particular, the views of the U.S. Environmental Protection Agency and National Marine Fisheries Service on the adequacy of nonpoint controls on logging and farming in coastal watersheds.

Ms. Bell asserts the Federal Register Notice did not meet the CZMA requirements to evaluate the program in an open and public manner for the following reasons:

- (A) the notice advertising the public meeting and opportunity to comment did not make reference or link to information on Oregon's coastal nonpoint program's having been disapproved by NOAA and EPA in January of 2015,
- (B) Only providing a direct link to the most recent evaluation findings in the notice

Ms. Bell also expressed concerns that this evaluation might not meet the requirements of Section 312, and states that the review must include "detailed findings" and discuss protection of water quality from nonpoint source pollution as identified in Section 303(2) including: at subsection (A) the protection of natural resources including estuaries, fish and wildlife and their habitat; at subsection (C) and (H), the consideration of the views of affected federal agencies, in particular, the views of the U.S. Environmental Protection Agency and National Marine Fisheries Service on the adequacy of nonpoint controls on logging and farming in coastal watersheds.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Bell, Northwest Environmental Advocates for the comments and supporting information. The Office for Coastal Management has reviewed the approved Oregon coastal management program and prepared these detailed findings concluding that Oregon is fully implementing and enforcing the coastal management program approved by the Secretary and addressed its coastal management needs as identified in 16 U.S.C. §1452 (A)-(K), as well as adhered to the terms of its federal funding.

NOAA solicited comments for Oregon's 2006 performance review in 2006 and responses to those comments were included in the 2006 findings. Comments on the 2006 performance review are not relevant to this current review of Oregon's approved coastal management program.

The Office for Coastal Management has penalized Oregon, and continues to penalize Oregon, to the full extent provided for in 16 U.S.C. § 1455b for failure to submit an approvable coastal nonpoint source pollution control program. The impacts of those penalties are discussed in these findings. The Office for Coastal Management joins Ms. Bell in hoping for and assisting Oregon in

achieving an approvable nonpoint source pollution control program to enhance its existing approved coastal management program.

The Office for Coastal Management met all *Federal Register* notice requirements with regards to public meetings. The office concurs with Ms. Bell that it could be beneficial to further exceed the public notice requirements in the Coastal Zone Management Act and implementing regulations and is now including a link in the *Federal Register* notice to an existing office webpage with the time and place of the public meetings. The webpage has been updated to include links to relevant documents for each program on the office's website so that interested parties may more easily find information related to their program of interest.

Bernard Bjork, Grassroots Coordinator, Lower Columbia Alliance for Sustainable Fisheries Warrenton, Oregon

Mr. Bjork, on behalf of himself and the Alliance for Sustainable Fisheries, expressed concern that the state of Oregon, by its decision to be very close to the extreme environmental community has hurt local coastal fishing families through decisions to create marine reserves and to designate areas offshore for marine energy development. He noted that Coastal Zone Management Act funds had been used to support amending the Territorial Sea Plan to allow ocean alternative energy and to provide the governor and marine cabinet with funding to work on spatial planning, marine reserves, and ocean energy conversion projects and planning, and that marine reserves and setting aside areas for marine development of wave and wind energy have hurt fishing families. He stated that the proposed area for wave energy devices off the National Guard's Camp Rilea could force boats to fish further down the coast, putting boats at risk in the case of storms or causing fishermen to miss the window for safely crossing the Columbia bar during an incoming tide.

He noted that during 2011-2012, fishing entities attended Clatsop County Planning and Commission meetings to try to stop zoning for marine energy. He stated that the Coastal Zone Management Act is partly responsible for the fact that Astoria is no longer home of Bumble Bee Seafoods and the "Salmon Canning Capital of the World."

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Mr. Bjork for his comments. The Oregon Coastal Program conducted an open and comprehensive public input process as part of its effort to amend the Territorial Sea Plan to address marine kinetic energy development, a new ocean use of growing interest in the state. Although the public input process was extensive and the coastal program attempted to best address the interests of everyone, the office acknowledges that there can be user conflicts between ocean uses, particularly when integrating new and older uses. The "Program Administration" section of the evaluation findings includes a discussion of the development of the Territorial Sea Plan amendment and public input process and references Mr. Bjork's comments.

Jerald Taylor, City Manager City of Manzanita, Oregon

Mr. Taylor expressed his appreciation for the Department of Land Conservation and Development staff and the sharing of technical information and developing planning tools to better understand the issues his community is dealing with. He notes that Manzanita is a community of 620 people (3,000 in the summer) and that the coastal program's technical and financial assistance greatly assists the city in fulfilling its planning and management responsibilities within the coastal zone.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Mr. Taylor for his comments.

Patrick Corcoran Oregon Sea Grant

Mr. Corcoran expressed his strong support for the Oregon Coastal Management Program and asserts that the program is well managed and spends resources carefully. He highlighted that the coastal population is growing and that local governments are facing the challenges of growth but, with tight budgets, don't have adequate staffing and skills. He states that Oregon's coastal communities need a strong coastal program to help build the capacity of local people to better manage growth and change in the coastal zone. He noted that staff members "help locals solve problems" and help move local communities from being reactive to proactive.

Mr. Corcoran explained that in his work as a hazards outreach specialist he works with staff members on topics ranging from climate change to subduction zone earthquakes and tsunamis and that he often focused his efforts according to coastal program activities to maximize the impact of both programs. He noted that the institutional synergy between the coastal program, Oregon Department of Geology and Mineral Industries, and Oregon Sea Grant has resulted in program impacts far beyond what they could do alone.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Mr. Corcoran for his comments.

Dale Shafer, City Manager City of Nehalem, Oregon

Ms. Shafer stated that the city's experience with the Department of Land Conservation and Development and the coastal program was extremely positive and that the information and assistance they provide is extremely important to small cities like Nehalem. She states that with their small staff, they count on the Department of Land Conservation and Development for help

and have a great partnership. She states that the coastal program is very important to all of the Oregon coast.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Shafer for her comments.

Carole Connell

Ms. Connell stated that she was awarded a contract to prepare Tsunami Evacuation Facilities Improvement Plan Guidelines for Oregon's coastal communities. She notes that the guidelines are designed to give clear direction, practical land use methods, and tsunami evacuation planning provisions applicable to all local governments and will aid local governments in the development of tsunami evacuation routes and assembly areas by providing tools integral to implementing a number of comprehensive plan strategies, financing options, and development code provisions that can be utilized within a community's local land use program. She noted the project was partially funded with Coastal Zone Management Act funding through NOAA, and she worked closely with coastal program staff members who managed the project and published the document. She stated that coastal program staff provided excellent guidance throughout the project as they worked together to strengthen a relatively new element in the Oregon land use planning system. She noted that she is currently working for a coastal community, and with the guidelines in hand, the City of Gearhart is developing a transportation plan that will include tsunami evacuation routes, assembly areas, and evacuation planning policies and standards. She stated that she knows Oregon's coastal communities are continually becoming better prepared for an event, thanks in part to NOAA's financial contribution.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Connell for her comments.

Craig Spinning

Mr. Spinning copied the Office for Coastal Management on correspondence with the Oregon Department of Environmental Quality regarding needing assistance in completing forms to file for potential violations to be investigated and issues related to a Coos County public meeting.

NOAA Office for Coastal Management Response: From subsequent correspondence, the office believes that Mr. Spinning was able to obtain the assistance requested.

Phillip Johnson, Executive Director Oregon Shores Conservation Coalition and Courtney Johnson

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

Mr. Johnson and Ms. Johnson on behalf of Oregon Shores state that Oregon Shores and its members strongly support Oregon's land use system and its fundamental principles of citizen involvement, long-range planning, and sound principles of judicial review. The commenters highlighted a number of accomplishments, including the results of several NOAA Coastal Fellowship projects and Projects of Special Merit to address sea level rise, tsunami inundation, restoration of salmonids, and beachfront erosion; the completion of the Territorial Sea Plan amendment; Neskowin Coastal Erosion Adaptation Plan, publishing the Tsunami Guide (2014); and the state's efforts to support coastal community planning to reflect changing economic realities, such as the Astoria riverfront vision plan.

They also raised a number of concerns. They stated that they fully support strong regulations to protect water quality in coastal watersheds and that the Board of Forestry and the Oregon Forest Practices Act fail to protect coastal water quality. However, they state that the NOAA/EPA sanctions from the disapproval of the Oregon Coastal Nonpoint Program are counter-productive because the Department of Land Conservation and Development does not have the authority to address the source of the water quality programs, and the cut in funding weakens Oregon's overall efforts to protect coastal resources and help communities plan for impacts of climate change.

They also raised concerns about coastal hazards, particularly in light of an increasing coastal population. They state there is insufficient planning to prepare for or mitigate natural hazards and specifically address climate change and tsunamis. They advocate for an adaptive planning process and state that the existing planning framework falls short because (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. They also state that existing policies to consider coastal and shoreline impacts of development 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 most communities planning staffs are not equipped to assess risks. They 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. They also suggest an update of Land Use Planning Goal 7, natural hazards, to specifically deal with the likelihood of a tsunami and that the Department of Land Conservation and Development should implement Section B of Goal 7, Response to New Hazard Information. They also highlight a number of options for adapting to climate change that should be explored, including rolling easements; using property rights tools such as future interests, transfer of development rights, conservation easements, or restrictive covenants; and a regulatory approach such as setbacks.

The commenters also call for Oregon to consider what areas of the coast should be protected and which should remain natural within a larger framework of adaptive planning. They cite the mapping of coastal properties eligible for shorefront protection under Goal 18 as a good step for

better understanding current and possible future shoreline hardening and note the potential of the Coastal Atlas as a resource for local planners, community members, and governments, but that more is needed beyond data collection.

The commenters noted that when first adopted, Oregon's land use system envisioned a periodic review process, but that it is now only a requirement for a handful of jurisdictions. The commenters call for Oregon to return to regular periodic review of comprehensive plans to encourage the use of new information and revision of policies to adapt over time, particularly related to hazards.

The commenters note that Oregon's estuaries serve as rearing areas for important runs of threatened fish species, such as Columbia River Chinook, chum, and coho salmon. They also note that many of Oregon's coastal wetlands have been diked for farming, transportation, and other development uses. They raise concerns that as sea level rises, remaining tidal marshes could be lost, since they will be unable to move upslope. They discuss that barriers in estuaries also increase the risk of flooding upstream and that restoration can help increase the resilience of these ecosystems and help prevent more destructive flooding. They discuss potential planning tools for incorporating concepts of wetland adaptation into local land use planning such as increased setbacks from wetland and riparian areas, conservation easements, and rolling easements.

The commenters discuss a project in Lincoln County and Newport, where Oregon Shores engaged in a grassroots process with citizens to develop a proposal to incorporate adaptive planning for climate change impacts to wetlands in local plans. They noted that there were significant barriers, especially lack of local government resources to address issues not mandated by the state. The commenters suggest that the Department of Land Conservation and Development 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 wetland boundaries, could dovetail with existing laws regarding wetland delineation and protection.

The commenters state that for Oregon to fulfill its federal consistency role, two actions must occur: (1) It must be clear to both applicants and the public what the federally approved "enforceable policies" of the program are, and they should be publically accessible in one place. They also advocate that the state should prioritize updating this information and ensure that all adopted policies are approved by NOAA for inclusion in the federal approved program. (2) The state must act in its role under the Coastal Zone Management Act. They cite an example of concern, the Oregon LNG terminal and pipeline proposed for Warrenton, which was denied land-use permits by both the local county and local city. They state that for those members of the public who had testified at local hearings about the impacts of this project, the state's failure to stand behind the local government's decisions appeared inconsistent with the state's CMZA Section 307 role. They state that with NOAA's guidance, the state must be willing to act both to approve and to deny federal consistency certifications based on proper analysis of compliance with the federally approved enforceable policies of the Oregon Coastal Management Program.

The commenters conclude their comments by encouraging NOAA to work with the state 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.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Johnson and Mr. Johnson for their comments. The Office for Coastal Management acknowledges that the reduction of 306 funds will have an impact on the coastal program's ability to support local government planning efforts. The commenters have provided a number of ideas to help Oregon better prepare for climate change, Cascadia tsunamis, and other coastal hazards, and these have been provided to the coastal program. The evaluation findings detail some of the many actions the program has taken to help better prepare the state's coastal zone in the section, "Local and State Partnerships and Coastal Hazards." The Office for Coastal Management has also included a recommendation supporting the value and need to continue to support state and local efforts to address coastal hazards. The commenters also raised issues around returning to a regular periodic review of comprehensive plans and working with state lands and other agencies to determine how concepts of adaptation could dovetail with existing laws regarding wetland delineation and protection. The coastal program has invested a significant amount of effort over the evaluation period to develop baseline data and provided financial support to Coos County to assist with a pilot using the new data to update its estuary management plan, which is discussed further in the findings in the section, "Estuary Management Plans." The Office for Coastal Management is supportive of the coastal program's efforts to assist local communities in updating their local land use plans and estuary management plans.

The commenters also raised concerns regarding federal consistency, including ensuring that the public and applicants understood what enforceable policies were included in the federally approved Oregon Coastal Management Program and that policies were submitted to NOAA for inclusion in the program. The findings acknowledge that the coastal program has made significant progress in reducing a backlog of adopted policies and successfully submitting them for inclusion in the federally approved coastal program. The findings also contain a recommendation that the program work with NOAA to completely address the backlog and develop a process to submit any changes on a regular basis. The Oregon Coastal Program does provide on its website either a table with citations for all enforceable policies or a contact email for more information. As updated local programs and state statutes are submitted to NOAA for incorporation into the federally approved program, it is anticipated that tables with citations for all enforceable policies will be available on the coastal program's website. The Office for Coastal Management has found through the evaluation that the state is successfully implementing its federally approved program.

Abigail Houston North Bend, Oregon

Ms. Houston urged NOAA to protect and preserve the natural resources of the Oregon Coast. She urged the state to develop a National Environmental Policy Act compliant permitting program. She expressed her hope that coastal Oregon remain clean and untouched by industry.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Ms. Houston for her comments. A state environmental policy act is not a requirement under the Coastal Zone Management Act, but a state may choose to develop and implement such an act. The evaluation findings include a discussion of the coastal program's efforts to protect and preserve the natural resources of the Oregon Coast in both the "Estuary Management Plans" section and "State and Local Partnerships and Hazards" section.

JC Williams North Bend, Oregon

JC Williams stated that the cooperation between government agencies on local, state, and federal levels is a continual problem and that coordination could be improved by following California and Washington's example and developing a state Environmental Policy Act. JC Williams also stated that Oregon has a permitting system that does not take into account cumulative impacts and it should. JC Williams encourages giving more "teeth" to enforcing the coastal program. JC Williams expressed concern about climate change and stated that the air and water must be a priority. Lastly, JC Williams stated that the LNG project proposed for Coos Bay could not be in a more inappropriate place (i.e. tsunami/earthquake zone).

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks JC Williams for the comments. A state environmental policy act is not a requirement under the Coastal Zone Management Act, but a state may choose to develop and implement such an act. The coastal program's efforts to plan for and mitigate the impacts of coastal hazards, including climate change, are further discussed in the section "State and Local Partnerships and Coastal Hazards." Regarding the Jordan Cove Liquefied Natural Gas project proposed for Coos Bay, please see response to commenters below.

The following commenters provided comments focused on the Jordan Cove Liquefied Natural Gas project. The Office for Coastal Management has grouped these comments and provided one combined response.

- Maryann Rohrer
- Tom Bender
- Charles B. Miller, Ph.D.
- Martha Gregor
- Jody McCaffree

- Deb Evans and Ron Schaaf
- Jonathon Hanson
- Katy Eymann
- John Clarke

Maryann Rohrer North Bend, Oregon

Ms. Rohrer provided comments on the proposed Jordan Cove Liquefied Natural Gas export terminal project. She stated that the project was proposed in a tsunami inundation zone and would put the community at risk in the case of an earthquake, tsunami, or both.

She noted that the Federal Energy Regulatory Commission denied an associated pipeline and that the dredging and excavating associated with the project would destroy Haynes Inlet, including commercial oyster harvesting, salmon, and other estuary life. Ms. Rohrer stated that the project was in conflict with the Coastal Zone Management Act, in particular 16 U.S.C. Section 1452 Congressional declaration of policy "(1) to preserve, protect, develop, and where possible, to restore or enhance the resources of the Nation's coastal zone for this and succeeding generations; . . . (2)(B) the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone, storm surge, geological hazards . . . [and] (2)(C) the management of coastal development to improve, safeguard, and restore the quality of coastal waters, and to protect natural resources and existing uses of those waters."

Tom Bender Sustainable Architecture and Economics Nehalem, Oregon

Mr. Bender provided both a letter and PowerPoint presentation regarding the proposed Jordan Cove LNG facility. He identified a number of concerns with regards to "the extreme hazards involved with LNG import/export facilities with the proposed Jordan Cove LNG facility."

- Not a single state or federal agency included an evaluation of risks from terrorist attacks
- Potential hazards due to near proximity to commercial airport
- Vulnerability to a Cascadia earthquake and subsequent subsidence and tsunami impacts
- Sea level rise due to global warming within the useful life of the project
- Ships will operate in unsafe conditions due to cost considerations

In addition, he noted that it is likely that fossil fuels will be banned in the future.

He stated that the proposed facility violates the state's land use planning

• Oregon Land Use Planning Goal 2 as they did not evaluate alternative courses of action such as energy efficiency and renewable resources

- Goal 7: Areas Subject to Natural Hazards as the site is potentially subject to submergence with a subduction earthquake and will be inundated by sea level rise from global warming within the useful life of the project
- Goal 9: Economic Development as the LNG facility as "a proposal for variance from comprehensive plans and policies must demonstrate that it contributes to a stable and healthy economy in all regions of the state, something an LNG facility will not do.
- Goal 11: Public Facilities and Services as services can't deal with the magnitude of an explosion
- Goal 12: Transportation because LNG is not safe to transport
- Goal 13 Energy Conservation as it does not minimize the depletion of non-renewable sources of energy, or maximize the conservation of energy.

He also stated that full information has not been made available to the public and that the project threatens the economic health of the county; the air, water, and natural environment; and quality of life in Coos County. He calls for the Oregon Coastal Management Program and interagency actions to deal with the hazards.

Charles B. Miller, Ph.D. Professor Emeritus, Oceanography Oregon State University

Dr. Miller states that the operations of the Oregon Coastal Management Program by and large are excellent. However, he states a series of stay agreements delaying decisions on the federal consistency findings for two LNG terminals have made federal consistency certification unwieldy and misleading and characterizes it as kicking the "political can" down the road.

He notes that the potential for a massive subduction zone earthquake and for subsequent inundating tsunamis, well described in the Oregon Coastal Program office's Tsunami Guide (2014). He states that this should be the prime reason for denial for the proposed Jordan Cove LNG facility. He noted that the interval since the last such earthquake is now greater than the roughly 240 typical years, where the plant is proposed. The proposal includes gas compression, massive LNG storage (320,000 cubic meters), a 440 MW gas-fired power plant, and a shipping facility supported by a 232-mile pipeline through the friable, mountain soils of the Oregon Coast Range in Douglas and Coos Counties. He referenced a document provided to Kimberly D. Bose Secretary, dated January 6, 2016, regarding hazards risks to the pipeline.

He stated that since 1995 it has been illegal under Oregon law, recodified as ORS 455.446 and 455.447, to construct facilities containing huge amounts of flammable or toxic substances in the parts of the coastal zone subject to tsunami. He notes it will be argued, because marine shipping of anything means it must cross the land-sea border that an exception should be made for LNG, that storage of it on the shore should be permitted. He also notes that the law provides a way for granting some exceptions, through review by the State Department of Geology and Mineral Industries (DOGAMI), but an exception for the Jordan Cove Energy Project has not been granted.

He stated that the decision regarding coastal program consistency certification has become political and is based on political benefits to office holders and not public safety or environmental integrity. He noted that the project still did not have a number of needed permits, including Army Corps of Engineers 404 Clean Water Act permit, several removal-and-fill permits from the Oregon Department of State Lands for underwater pipeline excavations, and Oregon Department of Environmental Quality 401 water quality certification.

He states that the Office for Coastal Management should not allow Coastal Zone Management Program consistency certifications to be delayed and that applications should have their half-year review and then receive appropriate certifications or denials, which would stop wasteful investments much sooner. He calls for the Office of Coastal Management to include in the findings that consistency of the Jordan Cove Energy Project should be denied before July 25, 2016.

Martha Gregor North Bend, Oregon

Ms. Gregor asked that NOAA not allow a pipeline as it will disrupt habitat and tourist-based businesses, and compromise the quality of life for residents.

Jody McCaffree Bandon, Coos County, Oregon

Ms. McCaffree submitted comments and seven attachments:

- Letter addressed to Coos County Commission RE: Coos County File No. AM-16-01-Ordinance language changes, dated September 7, 2016
- Draft Timeline of Events: "Jordan Cove LNG Export Project Permit Processes & Other Critical Issues," dated June 10, 2016;
- Oregonian newspaper article, "Contractor Loses Suit over Coos County Gas Pipeline," dated February 24, 2009
- Oregonian newspaper article, "Enterprise Goes Sour" (Part one of a three-day series on a Coos County pipeline project), dated July 25, 2004
- Letter addressed to Coos County Planning Commission regarding Coos County Zoning and Land Development Ordinance Article 4.6 Overlay Zones – Floodplain Revisions, dated March 6, 2014
- Letter addressed to Governor Kitzhaber, Senators Ron Wyden and Jeff Merkley, and Representative Peter Defazio regarding "Green Renewable Energy is the Future! Save Oregon from the proposed Jordan Cove Liquefied Natural Gas (LNG) Export Project," dated November 24, 2013

• Letter addressed to Joelle Gore, NOAA, Regarding Oregon's Coastal Zone Nonpoint Pollution Program, dated March 21, 2014

Ms. McCaffree states that due to many years of past industrial development in the Coos Bay area, the estuarine ecosystems have been compromised. She notes, however, that the area still provides habitat for threatened species such as the Oregon coho, Pacific eulachon, and green sturgeon and that other marine turtles and mammals that are also listed as being endangered. She states these factors are not taken into account during the planning permit processes and that the threat of a massive development and dredging project is likely to push the bay's biological function over the edge and further compromise these threatened and endangered species.

She states that the current land use process, part of Oregon's Coastal Program, is not being followed as it was intended and is outdated and as a result is not protecting the estuary. She states that citizens are ignored in the land use planning process when they try to ensure enforcement of the protection codes in the Coos Bay Estuary Management Plan. She states the permitting system is geared towards handing out permits, including changing the codes, if need be, to cater to industrial developers. She states that developers can buy permits and/or the code changes necessary to obtain them.

She also states that agencies who should proactively be "preserving and protecting" the estuary are not doing so and instead are finding ways to get around the rules and hand out the permits. She discusses that applicants make promises, such as, for example, mitigation measures, but there is no accountability or enforcement unless citizens fight for it or file lawsuits. She sites as an example that that the Jordan Cove LNG and Pacific Connector permits, Conditions of Approval were only good until the industry filed amendments to their permit applications to do away with them.

She states that she had to go outside the state to get Olympia oyster experts to help her in 2011 to fight to protect native oysters in Haynes Inlet, even though local experts were getting grant funds to study these oysters locally. She states that Oregon is not protecting water quality and saving salmon.

Ms. McCaffree noted that she had submitted comments to NOAA in March 21, 2014, listing 20 local permit processes that had occurred on the Jordan Cove/Pacific Connector Project and that nothing had been done and that this number was now 37. She provided a listing of the 37 local permit processes.

Deb Evans and Ron Schaaf Hair on Fire Oregon Ashland, Oregon

Ms. Evans and Mr. Schaaf provided comments and also submitted attachments:

- Exhibit A: Letter addressed to Robert Smith, Edward Myers, and Cassandra Bernstein, U.S. Department of Energy, "Comments on Office of Fossil Energy of the US Department of Energy the Macroeconomic Impact of Increasing U.S. LNG Exports, Oct 29, 2015 (2015 LNG Export Study)," dated February 12, 2016
- Exhibit B: Letter Addressed to Coos County Planning Department, "Coos County Land Use Permit for Jordan Cove Facility and Marine Terminal Coos County File No. HBCU-15-05 / CD=15-152 / FP-15-10," dated January 12, 2016

The commenters wrote to express three main concerns with the proposed Jordan Cove Liquefied Natural Gas Terminal and South Dunes Power Plant: (1) public safety as the proposed facility is located in the tsunami inundation zone and next to an active airport, (2)need to factor climate change into coastal zone management protocol, and (3) impacts to coastal activities such as fishing, oystering, clamming, and recreation, particularly through the placement of a pipeline down Haynes inlet and the movement of ships.

They also described that the local government had briefly changed rules for the applicant so that they could apply for permits to avoid certain rules and that the local government continues to work with the company to move the project forward despite the Federal Regulatory Energy Commission denial of the Pacific Connector Gas Pipeline and Jordan Cove Energy project in March 2016.

Jonathon Hanson Local Quality of Life Stakeholder Coos County, Oregon

Mr. Hanson states that there are serious unresolved issues with (1) the administration of the Department of Land Conservation and Development, (2) the department's relationship to Coos County government, and (3) with its updating of estuary management plans. He states that many actions have been in violation of the National Environmental Policy Act (NEPA). He also states that a group of Coos County citizens is reviewing the illegal acts of the county with regard to the Oregon Racketeering Influenced and Corrupt Organizations law. He states that the Department of Land Conservation and Development failed to implement its oversite role and calls for NOAA to investigate whether the county and the department are colluding.

Mr. Hansen raised specific concerns regarding the Jordan Cove Pacific Connector proposal. He states that the Coos County planning director and county commissioners modified the Coos County Zoning and Land Development Ordinance so Jordan Cove Energy Partners' and Pacific Connector Gas Pipeline's proposals would appear to be consistent with the CZMA. Specifically, the county eliminated the need for a detailed site plan for the proposed South Dunes Power Plant (SDPP), and did not require it to be reviewed as part of a multi-component project. In addition, the county eliminated the requirement that eminent domain may only be carried out by a governmental entity. He states that these changes were not originally a subject of public notice and discussion, and generated considerable controversy, but were approved in December 2014.

He states the modifications were made to the county ordinance, resulting in violations of the Coastal Zone Management Act without the Department of Land Conservation and Development taking appropriate administrative action.

He also raises safety concerns regarding the location of the LNG terminal and cites five safety recommendations of the industry—the Society of International Gas Tanker and Terminal Operators (SIGTTO)—published in 1997 and provides an analysis as to why these conditions are not met. He states that the Federal Energy Regulatory Commission should deny the request and permanently terminate this project based on the grounds of the irrationality and criminal insanity of the proposed location and that NOAA should immediately order the Oregon Department of Land Conservation and Development to take the same action.

He described a number of estuarine impacts that will occur if the project moves forward and believes that the management plan conditions are not being met, including those addressing dredging and fill in the estuary. He states that there are problems with the map overlays in the estuary management plan, specifically that the applications for permits related to the Jordan Cove Pacific Connector went through a variety of iterations, and with every iteration, the overlays designating the various designated areas were different; for example, the sensitive areas unsuitable for development and the designated floodplain areas kept moving around—farther and farther away from the proposed development structures.

Katy Eymann, Resident Bandon, Coos County, Oregon

Ms. Eymann provided written comments and six attachments:

- (1) Coos County Order on Condition #25 Ordinance No. 14-01-006PL, dated February 4, 2014
- (2) LUBA Decision LUBA No. 2014-022, dated July 15, 2014
- Petitioners Brief to Court of Appeals A 157506, dated August 2014
- (3) Oregon Court of Appeals A 157506, argued November 14, 2014
- (4) Court of Appeals Decision A157506, filed December 3, 2014
- (6) Coos County Ordinance No. 15-05-005PL, signed July 20, 2015
- (5) Coos County Notice of Adoption Planning Department File No. REM-11-01, dated March 14, 2012

Her comments included exhibits A-D:

- Exhibit A Map of Coos Bay Hazard zones showing LNG Terminal and South Dunes
- Power Plant locations
- Exhibit B Coos County Ordinance No. 15-05-005PL
- Exhibit C FERC FEIS map showing the extent of hazard created by the Jordan Cove
- LNG Terminal and Ships
- Exhibit D CBEMP Section 4.5.150.

Ms. Eymann states that the Coos County Ordinance is inconsistent with Statewide Planning Goal 7 and that the state of Oregon has failed to require Coos County to follow Goal 7, specifically that "a local government shall: 3. Adopt or amend, as necessary, based on the evaluation of risk, plan policies and implementing measures consistent with the following principles:

a. Avoiding development in hazard areas where the risk to people and property cannot be mitigated; and b. Prohibiting the siting of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code (ORS 455.447(1) (a)(b)(c) and (e)), in identified hazard areas, where the risk to public safety cannot be mitigated, unless an essential facility is needed within a hazard area in order to provide essential emergency response services in a timely manner."

She states that the Department of Land Conservation and Development provided Coos County with maps of hazard areas developed by the Department of Geology and Mineral Industries in 2012 and that the maps define the area of the Jordan Cove LNG Terminal proposal as a "hazard" zone to be avoided. In July of 2015, Coos County adopted Ordinance No. 15-05-005PL with an effective date of July 30, 2016. She suspects the delay was to allow time for construction of the Jordan Cove LNG Terminal and Pipeline to begin and thus not be subject to the requirements of the Statewide Planning Goal 7. She states that Coos County has not yet implemented the application of the maps to local decisions, and this is in violation of Statewide Planning Goal 7.

She states that this adoption of the ordinance did not bring the county into compliance with Statewide Planning Goal 7, as the county failed to adopt the following language required by Statewide Planning Goal 7 C.

"3. Adopt or amend, as necessary, based on the evaluation of risk, plan policies and implementing measures consistent with the following principles:

a. Avoiding development in hazard areas where the risk to people and property cannot be mitigated; and

b. Prohibiting the siting of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code (ORS 455.447(1) (a)(b)(c) and (e)), in identified hazard areas, where the risk to public safety cannot be mitigated,"

She states that the Jordan Cove LNG Terminal clearly fits the definition of a Hazardous Facility defined by ORS 455.447(1)(b) and listed in Oregon Stateside Planning Goal 7: "Hazardous facility" means structures housing, supporting, or containing sufficient quantities of toxic or explosive substances to be of danger to the safety of the public if released. ORS 455.447(1)(b)

Ms. Eymann also raised concerns regarding the Pacific Connector Gas Pipeline. She states the Coos Bay Estuary Management Plan policies do not permit the pipeline. Ms. Eymann provided the plan's policies that she stated had been violated and a detailed analysis for them: Policy 2 – Incidental Dredging; Policy 14 – Use Cannot Be Accommodated in Upland Area; Policy 5 – Must Demonstrate Need-Substantial Public Benefit. She provided, as attachments, documents regarding the legal history of challenges to the pipeline.

Ms. Eymann concludes that Coos County is not interested in protecting the estuary, only in approving a project that will create short-term jobs and that the state has failed to act consistently with the Coastal Zone Management Act.

John Clarke Winston, OR

Mr. Clarke provided comments and submitted two attachments:

- An article from Oregon State University dated August 1, 2012 titled "13-Year Cascadia study complete."
- A paper dated January 14, 2015 submitted by Dr. Jerry Havens, University of Arkansas, and Dr. James Venart, University of New Brunswick, to FERC, "Regarding the Jordan Cove Expert Terminal Draft Environmental Impact Statement Docket No. CP13-483."

Mr. Clarke wrote to express his concerns that in 2013, Coos County changed their land use for industrial development allowing developments like the Jordan Cove Energy Project to require only administrative approval from the Planning Director and two Commissioners. He states that a complaint was filed with the Department of Land Conservation and Development and the state did not acknowledge the complaint.

NOAA Office for Coastal Management Response: The Office for Coastal Management thanks Maryann Rohrer, Tom Bender, Dr. Charles B. Miller, Martha Gregor, Jody McCaffree, Deb Evans, Ron Schaaf, Jonathon Hanson, Katy Eymann, and John Clarke for their comments and engagement in coastal management. The comments focused on the Jordan Cove Liquefied Natural Gas project in particular, and touched on another proposed liquefied natural gas project in the state. The NOAA Office for Coastal Management acknowledges that the liquefied natural gas terminals and associated infrastructure proposed in the state and the Jordan Cove Liquefied Natural Gas project in particular, have been large controversial projects and have generated significant public interest.

The Office for Coastal Management reviewed the documentation provided and discussed the project with the state and did not find a pattern of noncompliance with the federally approved coastal management program or implementation of federal consistency. Section 312 of the Coastal Zone Management Act considers the totality of actions and activities undertaken during the specific period covered by the review as an indication of whether the state coastal management program is meeting the policies and provisions of the Coastal Zone Management Act as it did when originally approved and through subsequent program change approvals. Thus, a programmatic evaluation under Section 312 of the CZMA, and this Oregon State Coastal Program evaluation and site visit, are not intended to resolve specific disputes over local permitting decisions or to issue a finding about whether a governmental entity was correct or incorrect in specific project-related decisions. NOAA, through the Coastal Zone Management Act, cannot and does not overturn or supersede state or local decisions or "force" a state or local

government to enforce or implement a state or local law or regulation. The state of Oregon provides citizens who do not agree with specific decisions made by a local government or the state have available appropriate recourse through state law.

Ms. McCaffree raised a concern that the state of Oregon was not protecting water quality and salmon. The coastal program's efforts to protect habitat and water quality are discussed throughout the findings and in particular the section "Program Administration: Water Quality" and a recommendation for the state to continue to work towards the approval of its Coastal Nonpoint Pollution Control Program is included in the section "Program Administration: Coastal Nonpoint Pollution Control Program."

The Office for Coastal Management has included a recommendation in the findings that the state provide the public with clear information on the role and responsibilities of the Department of Land Conservation and Development and the state agencies and local governments that are part of the networked program in executing the federal consistency process. This recommendation can be found in the section "Program Administration: Coastal Zone Management Act Reviews and Local Requirements" section.

The Office for Coastal Management has found that the Oregon Coastal Program effectively implemented its federally approved coastal management during the evaluation period.