December 20, 2013

OREGON COASTAL NONPOINT PROGRAM
NOAA/EPA PROPOSED FINDING

FOREWORD

This document contains the bases for the proposed determination by the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) (collectively, the federal agencies) that the State of Oregon (State) has failed to submit an approvable Coastal Nonpoint Pollution Control Program (Coastal Nonpoint Program) as required by Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), 16 U.S.C. 1455b. NOAA and EPA arrive at this proposed decision because the federal agencies find that the State has not fully satisfied all conditions placed on the State's Coastal Nonpoint Program.

On January 13, 1998, the federal agencies approved the Oregon Coastal Nonpoint Program subject to specific conditions that the State still needed to address (see "Oregon Conditional Approval Findings" at http://coastalmanagement.noaa.gov/nonpoint/pro_approve.html#Oregon). Since then, the State has made incremental modifications to its program and has met most of those conditions. However, the federal agencies provide notice of their intent to find that the State has not fully satisfied several conditions related to new development, onsite sewage disposal systems (OSDS), and additional management measures for forestry. The federal agencies invite public comment on the proposed findings relating to these conditions, as well as the extent to which those findings support a finding that the State failed to submit an approvable program under CZARA.

In addition, in 2004, the federal agencies provided Oregon with an interim approval of its agriculture conditions, believing that the State had satisfied those conditions. Agricultural practices are a significant land use in the coastal nonpoint management area and can have a significant impact on coastal waters. The goal of the Coastal Nonpoint Program is to ensure management measures are in place to achieve and maintain water quality standards and protect designated uses. A key designated beneficial use in Oregon's coastal waters is salmon spawning, rearing, and migration. More recently, the federal agencies have received comments that raise concerns about the adequacy of the agricultural measures to achieve this goal. Therefore, the federal agencies are also seeking public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions placed on Oregon's Coastal Nonpoint Program.

For further understanding of terms in this document and the basis of this decision, the reader is referred to the following documents which are available at http://coastalmanagement.noaa.gov/nonpoint/guide.html:

- *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* (EPA, January 1993);
- *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance* (NOAA and EPA, January 1993);

- *Flexibility for State Coastal Nonpoint Programs* (NOAA and EPA, March 1995);
- *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990* (CZARA) (NOAA and EPA, October 1998);
- *Policy Clarification on Overlap of 6217 Coastal Nonpoint Programs with Phase I and II Stormwater Regulations* (NOAA and EPA, December 2002); and
- *Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs* (NOAA and EPA January 2001).

Electronic copies of the documents cited above as well as any other references cited in this document and the Federal Register Notice announcing this action will be available at the following website: http://coastalmanagement.noaa.gov/czm/6217/findings.html and hard copies will be available at:

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SCOPE OF DECISION

This document explains the federal agencies' proposed findings related to the three conditions identified above—new development, OSDS, and additional management measures for forestry. These findings form the basis for the federal agencies' proposed determination that the State has failed to submit an approvable program. As noted above, this document also seeks public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions placed on Oregon's Coastal Nonpoint Program Except for these agriculture conditions, this document does not explain the federal agencies' proposed findings for the other conditions the federal agencies believe the State has adequately addressed since January 13, 1998.

NOAA and EPA's proposed findings in this document are based on information the State has submitted in support of each condition, the federal agencies' knowledge of coastal nonpoint source pollution management in Oregon, and additional supporting information, as warranted. Oregon may–and is encouraged to–continue to work on and improve its program. If, based on a later review of information received from the State subsequent to what the federal agencies considered for this document, NOAA and EPA determine that the State has submitted a fully approvable program, the federal agencies will provide another opportunity for public comment.

PROPOSED FINDING OF FAILURE TO SUBMIT AN APPROVABLE PROGRAM

The federal agencies propose to find, and invite public comment on the proposed findings, that the State of Oregon has failed to submit an approvable program pursuant to Section 6217(a) of CZARA.

I. UNMET CONDITIONS

A. URBAN AREAS MANAGEMENT MEASURES – NEW DEVELOPMENT

PURPOSE OF MANAGEMENT MEASURE: The purpose of this management measure is four-fold: (1) decrease the erosive potential of increased volumes and velocities of stormwater associated with development-induced changes in hydrology; (2) remove suspended solids and associated pollutants entrained in runoff that result from activities occurring during and after development; (3) retain hydrological conditions that closely resemble those of the pre-disturbance condition; and (4) preserve natural systems including in-stream habitat.

CONDITION FROM JANUARY 1998 FINDINGS: Within two years, Oregon will include in its program: (1) management measures in conformity with the 6217(g) guidance; and (2) enforceable policies and mechanisms to ensure implementation throughout the coastal nonpoint management area. (1998 Findings, Section IV.A).

PROPOSED FINDING: Oregon has not satisfied this condition. By not satisfying the new development management measure, Oregon has failed to submit an approvable program under CZARA.

RATIONALE: In its July 1, 2013, submittal the State proposed to use its new TMDL implementation plan guidance to voluntarily implement the new development management measure. NOAA and EPA note that the State has continued to revise the TMDL implementation guidance since submitting the July 1, 2013, draft to the federal agencies for review. On September 20, 2013, the Oregon Department of Environmental Quality (ODEQ) submitted to the federal agencies an updated draft of its *Guidance to Urban and Rural Residential Designated Management Agencies for Including Post-Construction Elements in TMDL Implementation Plans.* The State intends for the September version to replace the July 1, 2013, version the federal agencies reviewed for this findings document. The September draft guidance document was submitted after the deadline that the federal agencies set for the State to submit information that NOAA and EPA committed to consider with regard to evaluating the approvability of Oregon's Coastal Nonpoint Program at this time. Therefore, the federal agencies did not consider Oregon's reworked September draft guidance document when making this proposed finding. The federal agencies will review the updated draft (and any additional pertinent information the State provides during the public comment period) before making a final decision on this component of the State's Coastal Nonpoint Program. However, the federal agencies note that they cannot approve a program based on a submittal of draft guidance; such guidance must be final and operational. Further, the draft guidance relies on Designated Management Agencies (DMAs) to voluntarily comply with the new development management measure. Per NOAA-EPA's 1998 *Final Administrative Changes Memo*, a state may rely on voluntary approaches, so long as they are backed by enforceable policies and mechanisms. This memo establishes that for the federal agencies to approve program elements that rely on voluntary programs, the State must provide a description of the voluntary or incentive-based programs, including the methods for tracking and

evaluating those programs, that it will use to encourage implementation of the management measures, as well as a commitment to use the existing enforcement authorities where necessary. The State has not yet committed to using its back-up enforcement authority to require implementation of the new development management measure, where necessary, nor has it sufficiently described how it will proactively encourage implementation of the management measure through this voluntary program. These are the areas the federal agencies will be focusing on as they review the State's replacement submittal.

The federal agencies would accept a TMDL implementation approach, provided there is wide geographic coverage of TMDLs across a state's coastal nonpoint management area along with a requirement to implement the TMDL in a manner that meets the intent of the new development management measure. The performance standard required by the new development management measure is to reduce post-construction development total suspended solids (TSS) loadings by 80% or reduce TSS loadings so that the average annual TSS loads are no greater than pre-development loadings, and to maintain post-construction development peak runoff rate and average volume at pre-development levels. Oregon has TMDLs in place, either for temperature, sediment, bacteria or another pollutant, that cover nearly the full extent of its coastal nonpoint management area. Pursuant to OAR 340-042-0080, each urban or rural residential DMA identified as a source of stormwater or non-stormwater pollution (for example, excess heat causing unnaturally wide variations in receiving water temperature) must develop and implement a TMDL implementation plan to meet its assigned load allocation under the TMDL. Therefore, nearly all communities within the coastal nonpoint management area are assigned load allocation targets for bacteria, temperature, or another pollutant. DMAs must incorporate mechanisms to monitor implementation of management strategies and assess the effectiveness of those strategies in meeting water quality standards into their TMDL implementation plans; however, the ODEQ's July 1, 2013, *Draft Guidance for TMDL Implementation Plan Development: Urban/Rural Residential Land Uses Within the Coastal Nonpoint Management Area* falls short of requiring DMAs to meet the performance threshold described above for the new development management measure. Specifically, the July 1, 2013, version of Oregon's draft TMDL implementation guidance recommends, but does not require, that DMAs expand their TMDL implementation plans to include control measures applicable to small Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System (NPDES) Phase II permits program and the 6217(g) new development management measures. The draft guidance suggests other best practices and model ordinances to achieve conformity with the 6217(g) guidance. The State has also developed a tracking matrix for DMAs to describe and report on implementation of their plans on a regular basis.

To promote the draft guidance and encourage implementation of the 6217(g) new development management measures, the State committed to develop a process and schedule for training and educating DMAs and other stakeholders about the guidance. Although the federal agencies applaud Oregon for its vision to carry out a proactive outreach program to accompany the guidance, the federal agencies need a more detailed description of the specific outreach strategy the State will implement. Without a better understanding of how the State plans to promote the guidance and the recommendations it contains, the federal agencies are not able to determine if

the draft guidance would provide for adequate implementation of the new development measure. For example, at what point in the process, and how, will the State encourage DMAs to incorporate practices to implement the new development management measure in their TMDL implementation plans? Are there specific DMAs within the coastal nonpoint management area that will be targeted first?

Oregon's draft TMDL implementation plan guidance could serve to meet the new development management measure, provided the State is able to meet the other requirements for a voluntary program, i.e., provide a more detailed outreach strategy and an unequivocal commitment to use its back-up authorities to require implementation of the new development management, as necessary. Specifically regarding the latter, the State should replace any ambivalent language concerning enforcement in its final TMDL implementation guidance. For example, on p. 18 of the July 1, 2013, *Draft Guidance for TMDL Implementation*, change "enforcement should be used as a measure of last resort" to "enforcement will be used"; specifically replace "will" for "should" and remove or rephrase "as a measure of last resort".

Beyond the State's reliance on a voluntary approach, portions of Oregon's coastal nonpoint management area that are designated as MS4 areas are excused from implementing the new development management measure, per the federal agencies' December 20, 2002, memo, *Policy Clarification on Overlap of 6217 Coastal Nonpoint Programs with Phase I and II Stormwater Regulations*, as they are regulated under the National Pollutant Discharge and Elimination System (NPDES) Phase I and II stormwater permit program. The federal agencies rely on the NPDES program to manage polluted runoff from new development in these areas. Currently in Oregon, the City of Ashland, the City of Medford, and the Rogue Valley Sewer Services (which includes the cities of Central Point, Phoenix and Talent, and portions of Jackson County in the Medford Urbanized Area) are the only MS4s within the coastal nonpoint management area.

In summary, the federal agencies encourage the State to develop a proactive outreach and training strategy to promote the guidance and implementation of the new development measure throughout the coastal nonpoint management area. In addition, the federal agencies urge the State to commit to taking formal regulatory action to require the implementation of the new development management measure where needed when the voluntary approach does not result in good faith efforts to achieve the management objective within a reasonable time frame (e.g., five years from finalization of the TMDL implementation plan).

B. OPERATING ONSITE SEWAGE DISPOSAL SYSTEMS

PURPOSE OF MANAGEMENT MEASURE: The purpose of this management measure is to minimize pollutant loadings from operating OSDS.

CONDITION FROM JANUARY 1998 FINDINGS: Within two years, Oregon will finalize its proposal to inspect operating OSDS, as proposed on page 143 of its program submittal. (1998 Findings, Section IV.C).

PROPOSED FINDING: Oregon has not satisfied this condition. By not satisfying the OSDS management measure, Oregon has failed to submit an approvable program under CZARA.

RATIONALE: Oregon proposes to meet the management measure for inspection of conventional OSDS through a voluntary approach and education. However, for Oregon to use a voluntary program to meet its 6217(g) management measure requirements, the State needs to describe methods for tracking and evaluating the voluntary program, as well as meet other requirements for voluntary programs (see *1998 Final Administrative Changes Memo)*. Oregon has not described how it will track and evaluate the implementation and effectiveness of its voluntary program to promote routine inspections of conventional OSDS. Also per the 1998 memo, for the State to rely on a voluntary approach, it must also commit to using its back-up enforcement authority to implement the OSDS management measure in case tracking shows that the voluntary approach falls short of achieving the objective of this measure.

In 2013, Oregon enacted a law that expands disclosure on the condition of OSDS on the Seller's Disclosure Statement for all real estate transactions. The ODEQ has agreed to work with the Oregon Association of Realtors to: develop an educational packet for new home buyers and to train realtors on the importance of regular septic system maintenance; amend the buyer and seller advisories to include recommendations for septic system inspection at time of property transfer; and collaborate with the Oregon Bankers Association to determine lender requirements for loans involving properties served by septic systems.

The federal agencies support the State's planned outreach efforts to promote voluntary inspections of conventional OSDS. The State has provided information to meet many of the required elements which voluntary programs must have to satisfy 6217(g) management measures, including a legal opinion from the Oregon Attorney General's Office asserting that Oregon's Water Quality Statutes (ORS 468B et. seq.) provides the State with adequate back-up authority to require implementation of the 6217(g) management measures, including the operating onsite disposal system management measure, as necessary. However, in its July 1, 2013, submittal to the federal agencies, Oregon explicitly stated that it would not commit to develop and implement a tracking system to evaluate the success of its voluntary OSDS inspection program for conventional systems. If the State chooses to rely on a voluntary approach to address the OSDS management measure, the State must identify its operational monitoring and tracking program in order for the federal agencies to be able to find that the State has fully satisfied this condition. The State must also commit to using its back-up enforcement authority to implement the inspections element of the Operating OSDS management measure in the event its voluntary approach falls short.

In its July 1, 2013, submittal, Oregon also indicates that it could address nonpoint source pollution loads from OSDS through the State's TMDL processes. The State referenced its 2007 Tenmile Lakes TMDL as an example. The Tenmile Lakes TMDL estimated that septic systems, particularly older systems (installed before permits were required in 1974) contributed approximately half the summertime nutrient loads to that impaired lake. The Tenmile Lakes TMDL did not, however, provide an implementation strategy for reducing these loads, and

Oregon did not explain how it could use the TMDL process to address coastal nonpoint pollution loads from existing, uninspected conventional OSDS. The Tenmile Lakes TMDL identifies the need for septic system maintenance without actually providing a mechanism for ensuring such maintenance occurs.

C. ADDITIONAL MANAGEMENT MEASURES– FORESTRY

PURPOSE OF MANAGEMENT MEASURE: The purpose of this management measure is to identify additional management measures necessary to achieve and maintain applicable water quality standards and protect designated uses for land uses where the 6217(g) management measures are already being implemented under existing nonpoint source programs but water quality is still impaired due to identified nonpoint sources.

CONDITION FROM JANUARY 1998 FINDINGS: Within two years, Oregon will identify and begin applying additional management measures where water quality impairments and degradation of beneficial uses attributable to forestry exist despite implementation of the 6217(g) measures. (1998 Findings, Section X).

PROPOSED FINDING: Oregon has not satisfied this condition. By not satisfying the additional management measures for forestry, Oregon has failed to submit an approvable program under CZARA.

RATIONALE: Oregon proposes to address the additional management measures for forestry condition through a combination of regulatory and voluntary programs. While Oregon has made some progress towards meeting this condition, the State has not identified or begun to apply additional management measures to fully address the program weaknesses the federal agencies noted in the January 13, 1998, Findings for Oregon's Coastal Nonpoint Program. Specifically, the State has not demonstrated it has management measures, backed by enforceable authorities, in place to: (1) protect riparian areas for medium and small fish bearing streams, and non-fish bearing (type "N") streams; (2) protect high-risk landslide areas; (3) address the impacts of forest roads, particularly on so-called "legacy" roads; and (4) ensure adequate stream buffers for the application of herbicides, particularly on type "N" streams.

In 2010, Oregon proposed that water quality problems targeted by these additional management measures would be addressed through a new "implementation-ready" (IR) TMDL approach for the coastal nonpoint management area. That approach would strengthen the State's existing processes for developing and revising additional management measures. The new IR-TMDL approach would also identify and include specific enforceable best management practices that DMAs would need to follow to ensure that TMDL load allocations and water quality standards would be achieved and designated uses protected. The State has begun to pilot this IR-TMDL approach for the Mid-Coast Basin. Although the State once envisioned that it would complete its work on the Mid-Coast IR-TMDLs by June 2013, Oregon informed the federal agencies via letters dated February 12, 2013, and March 27, 2013, that development of the Mid-Coast TMDLs had been delayed. The federal agencies recognize the State's new IR-TMDL approach could be

an important tool for water quality management in the State. The federal agencies encourage the State to move forward with developing IR-TMDLs as expeditiously as possible. However, because the process is still under development and the pilot Mid-Coast TMDLs remain incomplete, the federal agencies are unable to evaluate whether the IR-TMDL approach is likely to satisfy the additional management measures for forestry condition at this time.

On July 1, 2013, Oregon provided the federal agencies with additional information asserting that the State's existing forestry regulations, voluntary programs, and other efforts demonstrate that the State has adopted the necessary additional management measures for forestry identified by the federal agencies in the January 13, 1998, Findings. After review of this submittal, the federal agencies propose to find that the State has not demonstrated it has an approvable program to meet the four outstanding concerns the federal agencies previously raised.

Protection of Riparian Areas: Oregon relies on both regulatory and voluntary measures to provide riparian protections for medium and small fish bearing streams (type "F" streams) and non-fish bearing streams (type "N" streams). However, the federal agencies propose to find that the State's existing measures for riparian areas around medium, small, and non-fish bearing streams do not adequately protect water quality and designated uses. A significant body of science, including: 1) the Oregon Department of Forestry's (ODF) Riparian and Stream Temperature Effectiveness Monitoring Project (RipStream); 2) "The Statewide Evaluation of Forest Practices Act Effectiveness in Protecting Water Quality" (i.e., the "Sufficiency Analysis"); and 3) the Governor's Independent Multidisciplinary Team Report on the adequacy of the Oregon Forest Practices in recovering salmon and trout, continues to document the need for greater riparian protection around small and medium streams and non-fish bearing streams in Oregon. In its July 1, 2013, submission to the federal agencies, Oregon cited the RipStream study and acknowledged that there was evidence that forest practices conducted under the State's existing Forest Practices Act (FPA) rules do not ensure forest operations meet the State water quality standards for protecting cold water in small and medium fish bearing streams.

The federal agencies note that the State is working to address some of the inadequate measures in the FPA. The Oregon Board of Forestry (Board), recognizing the need to better protect small and medium fish bearing streams, directed ODF to begin a rule analysis process that could lead to revised riparian protection rules. ODF staff are currently scheduled to present the results of the scientific analysis of the rule objective and proposed rule alternatives to the Board in March 2014. The Board has the authority to regulate forest practices through administrative rule making and could require changes to the FPA rules to protect small and medium fish bearing streams Until FPA rule changes are adopted, the federal agencies cannot consider them as part of the State's Coastal Nonpoint Program.

The federal agencies encourage the State to move forward with this rule making process. However, even if the Board does adopt enhanced protections for small and medium fish bearing streams that are designed to meet water quality standards, the federal agencies remain concerned that ODF is not considering increased protections for riparian areas around non-fish bearing streams. Before the federal agencies would find Oregon has fully satisfied the condition, the

State also must identify and adopt additional management measures necessary to protect small non-fish bearing streams to ensure attainment of water quality standards and designated uses.

Forestry Road Additional Management Measures: The Board of Forestry has made several improvements to general road maintenance measures to improve water quality. Changes made in 2002 and 2003, included: (1) establishment of a "Critical Locations" Policy for avoiding the building of roads in critical locations such as high hazards landslide areas, steep slopes, or within 50 feet of waterbodies; (2) creation of additional rules to address wet-weather hauling (OAR 629-625-0700), and (3) revision of an existing road drainage rule to reduce sediment delivery (OAR 629-625-0330).

The federal agencies believe that these improvements will help reduce sedimentation from roadways. However, the federal agencies remain concerned that a significant percentage of the road network on forest lands in Oregon continues to deliver sediment into streams, and that new drainage requirements are triggered only when new road construction or re-construction of existing roads occurs. The rule changes and new policies do not sufficiently address water quality impairments associated with "legacy roads" (e.g., roads that do not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with a large portion of the existing road network where construction or reconstruction is not proposed.

The State's voluntary Oregon Plan for Salmon and Watersheds (Oregon Plan) helps improve roads that contribute to water quality impairments, including legacy roads. However, Oregon has not provided a sufficient description of this voluntary effort to enable the State to demonstrate that the Oregon Plan satisfies the forest roads element of this condition. As the federal agencies' *1998 Final Administration Changes Memo* states, in order for states to rely on voluntary programs to meet coastal nonpoint program requirements, a state must, among other things: (1) describe the voluntary program, including the methods for tracking and evaluating those programs, the State will use to encourage implementation of the management measures; and (2) provide a legal opinion from its Attorney General asserting the State has adequate back-up enforcement authority for the voluntary measures and commit to exercising the back-up authority when necessary. While the State has provided the federal agencies with a legal opinion detailing the suitability of its back-up authorities, the State has not provided (either in writing or through past practice) a commitment to exercise its back-up authority to require implementation of the additional management measures for forestry roads, as needed. Also, the State has not provided the federal agencies with specific data to document the effectiveness of voluntary efforts to determine the extent of forestry road miles not meeting current road standards within the coastal nonpoint management area. This information could enable the federal agencies to determine if the voluntary improvements through the Oregon Plan have significantly addressed legacy road issues.

The ODEQ presented a conceptual road strategy to the technical workgroup supporting development of the pilot Mid-Coast Basin IR-TMDL that included specific inventory and reporting metrics for all roads, including forest roads, to help identify problem areas and

opportunities for improvement. In its July 1, 2013, submittal, the State also noted its intent to establish a roads survey program by 2014 and stated that it has entered into a cooperative agreement with the U.S. Department of Agriculture Forest Service to update its State-wide forest road geographic information data, a needed step for developing a road survey.

The federal agencies encourage the State to move forward with establishing a road survey or inventory program. To support an approvable coastal nonpoint program, the program should establish, among other things, a timeline for addressing priority road issues, including retiring or restoring forest roads that impair water quality, and a reporting and tracking component to assess progress for remediating identified forest road problems. Establishing a roads inventory with appropriate reporting metrics would provide valuable information on State and private landowner accomplishments to improve and repair roads and identify where further efforts are needed. Such an approach could help verify whether the combination of current rules and the Oregon Plan's voluntary measures are effective in managing forest roads to protect streams on a reasonable timeframe.

Landslide Prone Areas: Oregon proposes to address this element of the additional management measures for forestry condition through a mix of regulatory and voluntary approaches. While the State has adopted more protective forestry rules to reduce landslide risks to life and property and promotes some voluntary practices to reduce landslide risks through the Oregon Plan, it still does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards and designated uses are achieved.

Since January 13, 1998, Oregon has amended the Oregon FPA rules to require the identification of landslide hazard areas in stewardship plans, and road construction and maintenance (OAR 629-623-0000). Under the amendments, however, hazard areas were defined only as they related to risks for losses of life and property, not for water quality. Oregon still allows harvest of high-risk sites that will not cause a public safety issue and construction of roads on high-risk sites where alternatives are not available.

As noted in the January 13, 1998, findings, timber harvests on unstable, steep terrain can result in increases in landslide rates which contribute to water quality impairments. A significant number of studies continue to show significant increases in landslide rates after clear-cutting compared to unmanaged forests in the Pacific Northwest. For example, in the 2000 study, "Forest Clearing and Regional Landsliding," Montgomery et. al., concluded that landslide rates in Mettman Ridge in the Oregon Coast Range increased after clear cutting at a rate of three to nine times the background rate for the region. In its July 1, 2013, submittal Oregon also cites a limited study by Turner et al. (2010), indicating that at higher rainfall intensities, significantly higher landslide densities occurred on steep slopes compared to lower gradient slopes. To meet the additional management measure relating to high-risk landslide prone areas, the State must adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to impact water quality and designated uses, not just those areas where landslides pose risks to life and property.

The State employs a voluntary measure under the Oregon Plan that gives landowners credit for leaving standing live trees along landslide prone areas as a source of large wood. The large wood, which may eventually be deposited into stream channels, contributes to stream complexity, a key limiting factor for coastal coho salmon recovery. However, Oregon has not shown how it monitors and tracks the implementation and effectiveness of these voluntary approaches, nor has the State provided a commitment to exercise those back-up authorities where necessary to protect water quality and designated uses to ensure implementation of this measure. These are required elements if a state chooses to use voluntary programs to support its coastal nonpoint program (see the federal agencies' 1998 *Final Administrative Changes* guidance).

Buffers for Pesticide Application on Type N Streams: The federal agencies' January 13, 1998, Findings noted that Oregon had published forest practices rules that require buffer zones for most pesticide applications. However, these rule changes did not address aerial application of herbicides on non-fish bearing streams, which comprise a significant portion of the total stream length in the coastal nonpoint management area. For small, non-fish bearing streams, Oregon's coastal nonpoint program submission relies on the State's Pesticide Control Law at ORS 634, OAR 603-57, best management practices set by the Oregon Department of Agriculture (ODA), and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The federal agencies invite public comment on the State's approach regarding this aspect of additional management measures for forestry condition.

As it relates to operation of FIFRA, the federal agencies note that, in 2001, the Washington Toxics Coalition sued EPA for failing to consult with NOAA's National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA). EPA has since initiated consultation with NMFS on 37 pesticide active ingredients. NMFS has issued six final biological opinions (BiOps) for 29 active ingredients as well as a draft of the seventh BiOp for three additional active ingredients. NMFS has not yet, however, issued BiOps for the five remaining active ingredients nor the seventh BiOp. In the BiOps that have been issued, NMFS concluded that some herbicides are likely to jeopardize some listed species. For these herbicides, NMFS included reasonable and prudent alternatives, such as buffers around water bodies (fish and non-fish bearing) during application.

By way of background, on April 30, 2013, the National Academy of Sciences released a report with recommendations for assessing risks from pesticides to listed species under the ESA and FIFRA. As a result, EPA and NMFS are currently working collaboratively to resolve these issues and determine what measures are necessary to ensure salmon and water quality are sufficiently protected when herbicides are applied along waterways where listed salmon may occur.

At the State level, Oregon has taken independent steps to address pesticide water quality issues. Key State agencies, including ODA, ODF, ODEQ, and the Oregon Health Authority, formed a team in 2007 that developed an interagency Water Quality Pesticide Management Plan to guide State-wide and watershed-level actions to protect surface and groundwater from potential impacts of current pesticides. The plan, approved by EPA Region 10 in 2011, focuses on using water monitoring data as the driver for adaptive management actions. The plan includes a

continuum of management responses, ranging from voluntary to regulatory actions. Regulatory actions are implemented using existing agency authorities, if the water quality concerns cannot be addressed through the collaborative team effort. The State's Pesticide Stewardship Partnership (PSP) Program is the primary mechanism for addressing pesticide water quality issues at the watershed level. Through this partnership, the ODEQ works with State and local partners to collect and analyze water samples and use the data to focus technical assistance and best management practices on streams and pesticides that pose a potential aquatic life or human health impacts.

The federal agencies compliment Oregon for its establishment of a multi-agency management team, development of its Water Quality Pesticide Management Plan, and implementation of its PSP Program. If fully implemented, where needed, across the coastal nonpoint management area, these actions would represent strong management measures for helping the State address key pesticide issues. However, the federal agencies note that water quality monitoring data on pesticides are still limited in the State, and that ODEQ has only established eight PSP areas in seven watersheds, none of which are located within the coastal nonpoint management area. While the federal agencies recognize that the PSP program is expanding into two new watersheds, the agencies believe that, if monitoring data are to drive adaptive management, the State should develop and maintain more robust and targeted studies of the effectiveness of its pesticide monitoring and best management practices. These studies should include several sites within the coastal nonpoint management area. The federal agencies also encourage the State to design its monitoring program in consultation with EPA and NMFS so that it generates data that are also useful for EPA pesticide registration reviews and NOAA BiOps. Finally, while EPA and NMFS work through litigation and ultimately implement sufficient protections of target waterways, the federal agencies recommend that the PSP program conduct outreach to certified applicators to persuade them to take extra care to avoid streams when applying herbicides aerially in forested areas.

II. ADDITIONAL COMMENTS

A. AGRICULTURAL MANAGEMENT MEASURES-- EROSION AND SEDIMENT CONTROL, NUTRIENT, PESTICIDE, GRAZING, AND IRRIGATION WATER MANAGEMENT

In addition to the above conditions, as noted in the Foreword, the federal agencies also invite public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions placed on Oregon's Coastal Nonpoint Program.

PURPOSE OF MANAGEMENT MEASURES: The purposes of these management measures are to: (1) reduce the mass load of sediment reaching a waterbody and improve water quality and the use of the water resource; (2) minimize edge-of-field delivery of nutrients and minimize leaching of nutrients from the root zone; (3) reduce contamination of surface water and ground water from pesticides; (4) reduce the physical disturbance to sensitive areas and reduce the

discharge of sediment, animal waste, nutrients, and chemicals to surface waters; and (5) reduce nonpoint source pollution of surface waters caused by irrigation.

CONDITIONS FROM JANUARY 1998 FINDINGS: Within one year, Oregon will (1) designate agricultural water quality management areas (AWQMAs) that encompass agricultural lands within the coastal nonpoint management area, and (2) complete the wording of the alternative management measure for grazing, consistent with the 6217(g) guidance. Agricultural water quality management area plans (AWQMAPs) will include management measures in conformity with the 6217(g) guidance, including written plans and equipment calibration as required practices for the nutrient management measure, and a process for identifying practices that will be used to achieve the pesticide management measure. The State will develop a process to incorporate the irrigation water management measure into the overall AWQMAPs. Within five years, AWQMAPs will be in place. (1998 Findings, Section II.B).

DISCUSSION: In 2004, the federal agencies provided Oregon with an informal interim approval of its agriculture conditions, believing that the State had satisfied those conditions through its Agriculture Water Quality Management Act (ORS 568.900-933, also known as SB 1010), nutrient management plans (ORS-468B, OAR-60374), and Water Use Basin Program (codified in OAR Chapter 690). At that time, the federal agencies found that these programs demonstrated that the State has processes in place to implement the 6217(g) management measures for agriculture as CZARA requires.

The federal agencies premised this interim finding on Oregon's establishment of six Agriculture Water Quality Management Areas (AWQMAs) covering the coastal nonpoint management area and development of plans and accompanying rules for each as directed in the condition that the federal agencies placed on the Oregon program. The 6217(g) agriculture measures were incorporated into the appendices of all plans; therefore all six plans include measures in conformity with the 6217(g) guidance. Because the 6217(g) grazing management measure is now incorporated into all coastal AWQMA plans, the State did not need to pursue an alternative grazing management measure as the condition originally proposed.

The State's nutrient management plans and Water Use Basin Program further support the nutrient management and irrigation management measures. Nutrient management plans, consistent with the 6217(g) guidance, are required under all new or expanded CAFO permits in compliance with ORS-468B, OAR-60374, the Federal Water Pollution Control Act (33 U.S.C., Section 1251 et seq.), and NPDES. All combined animal feeding operations (CAFOs) registered to the Oregon 2009 CAFO NPDES General Permit are required to develop and implement Waste Management Plans to insure that nutrients and waste are applied at agronomic rates for the crop being produced so runoff does not occur.

The Oregon Water Resources Department's Water Use Basin Program, codified in OAR Chapter 690, supports the irrigation measure by establishing sub-basin classifications and limits on water use to ensure water quality and habitat for sensitive and endangered species is not impaired. Oregon State University has also developed Western Oregon Irrigation Guides which include

information on timing, measuring soil-water depletion, and application rates, consistent with the 6217(g) guidance.

Although the federal agencies initially found that these programs enabled the State to satisfy the agriculture condition, there is concern that water quality impairments from agriculture activities within the coastal nonpoint management area are widespread and that the State's programs and policies may not adequately meet the 6217(g) management measures for agriculture to protect coastal waters. For example, NOAA's National Marine Fisheries Services' recent listings for coho salmon and draft recovery plans (both under the Endangered Species Act) find that insufficient riparian buffers around agriculture activities are one of the contributors to the salmon's decline.

Some specific concerns with the State's agriculture program that have been brought to the federal agencies' attention and may influence the final decision of whether the State has satisfied the 6217(g) agriculture management measure requirements and the conditions placed on its program include the following:

- Enforcement is limited and largely complaint-driven; it is unclear what enforcement actions have been taken in the coastal nonpoint management area and what improvements resulted from those actions.
- The AWQMA plan rules are general and do not include specific requirements for implementing the plan recommendations, such as specific buffer requirements to adequately protect water quality and fish habitat.
- AWQMA planning has focused primarily on impaired areas when the focus should be on both protection and restoration.
- The State does not administer a formalized process to track implementation and effectiveness of AWQMA plans.
- AWQMA planning and enforcement does not address "legacy" issues created by agriculture activities that are no longer occurring.

Given these concerns raised, the federal agencies are seeking comment on the following questions:

- Has the State satisfied the agriculture conditions placed on its coastal nonpoint program?
- Does the State have programs and policies in place that provide for the implementation of the 6217(g) agriculture management measures to achieve and maintain water quality standards and protect designated uses?

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