



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
525 NE Oregon Street  
PORTLAND, OREGON 97232-2737

Refer to:

OHB2002-0232-GC

November 21, 2002

Ms. Janet Gillaspie  
Executive Director  
Oregon Association of Clean Water Agencies  
537 SE Ash, Suite 12  
Portland, OR 97214

Re: Review of a Hypothetical Erosion Control Program within the Context of Limit 12 of the 4(d) Rule.

Dear Ms. Gillaspie:

The National Marine Fisheries Service (NOAA Fisheries), Oregon Habitat Branch, received a copy of a hypothetical or model erosion control program to review on August 23, 2002. The hypothetical program was developed and funded by the Association of Clean Water Agencies (ACWA), with assistance from the Governor's Community Solutions Team and Oregon Department of Environmental Quality (DEQ). The hypothetical program is intended to be used by Oregon communities, after customization for their specific location and the habitat needs of fish in local watersheds. ACWA has asked for NOAA Fisheries review of the model program to determine if the program would be adequately protective of listed salmon, pursuant to one of the twelve evaluation considerations of limit 12 of the 4(d) rule (65 FR 42422, July 10, 2000).

Consideration nine of limit 12 requires that a development ordinance or a plan contain provisions to prevent erosion and sediment runoff during, and after construction, and thus prevent sediment and pollutant discharge to streams, wetlands, and other water bodies that support listed salmonids. The provisions should include, at a minimum, measures to detain flows, stabilize soils, protect slopes, stabilize channels and outlets, protect drain inlets, maintain best management practices (BMPs), and control pollutants. These goals can be accomplished by applying seasonal work limits, performing land-clearing activities in phases, maintaining undisturbed native topsoil and vegetation. The intent of consideration nine of limit 12 is to maintain natural runoff rates and protect water quality.

NOAA Fisheries staff have reviewed the model program and the associated technical manual, *Erosion Prevention and Sediment Control Planning and Design Manual* (2000). In addition, staff met with DEQ to review the adequacy of the technical manual to protect water quality. In addition to the technical manual, the model program contains the following sections:



- A description of the program including monitoring, inspection, reporting and enforcement.
- A discussion of the geographic area and environmental baseline of the model community.
- Information on species occurrence in the jurisdiction and their habitat requirements.
- An analysis of the effects of the program, including the potential for effects to water quality and derivation of hazard severity ratings to determine use of BMPs.
- An analysis of the effects to listed salmonids and their habitat as a result of the program.

Four types of monitoring are outlined in the program: (1) Implementation monitoring at the project level; (2) effectiveness monitoring at the project level; (3) implementation monitoring at the program level; and (4) effectiveness monitoring at the program level. Both types of monitoring at the project level can result in stop-work orders if deficiencies are observed, and include the requirement for corrective actions if sediment is moving off-site or impacting sensitive resources. The model program proposes annual reporting to NOAA Fisheries that discusses the results of the monitoring program, and any pertinent recommendation for modification or improvements in the program and its requirements.

Within the model program, the need to customize the program and BMPs to local conditions is discussed. This requires local information on fish populations and corresponding building permit activity, average annual rainfall, soil types and textures, lot slope, proximity to stream, riparian habitat or stormwater inlet, and fish species life stage sensitivities, timing and use. This information is needed to determine the appropriate use of BMPs, as well as effects to listed species.

The model program uses a hazard-risk approach to determine the risk of erosion and sediment delivery to waterbodies with listed fish. Using this methodology, the hazard risk can guide the selection of appropriate BMPs, and determine which sites have the greatest potential for impacts to sensitive resources. In addition to BMPs, the risk approach can indicate when other permit conditions are warranted such as restricting the season of construction and repositioning the building footprint. This tool also can be used to analyze effects at the program level, including examining example project scenarios representing a range of conditions. Monitoring details are provided in Attachment A: Example Model Program for Erosion and Sediment Control During Construction.

This program is strong, with good attention to detail in terms of appropriate implementation and use of BMPs. If fully implemented, the accountability of the program should minimize the movement of soils off of construction sites. To increase the strength of the program, we encourage ACWA or the jurisdiction using the program to incorporate the following changes:

- Chapter 2, page 7, define riparian areas as one potential tree height from the edge of the channel migration zone (relevant to limits on clearing and grading).
- Chapter 2, page 9, add the following to the list of deficiencies, “there is evidence of visible amounts of erodible material to on-site or adjacent sensitive resources.”

- Chapter 6, page 39, provide clear conditions when permit denial is appropriate (e.g., when the risk of erosion is high and the risk to listed species is high).

NOAA Fisheries staff also reviewed the referenced technical manual, *Erosion Prevention and Sediment Control Planning and Design Manual* (2000), in conjunction with DEQ. This is a strong manual that does a good job on the prevention of sediment movement, source control, and low impact development. The layout of the BMPs is good and easy to update. Incorporation of the following comments would improve the protectiveness of, and assurances provided by, the manual:

- We recommend annual review of the manual to update the latest BMPs and their application, and to analyze the effectiveness and implementation monitoring. During the annual review, tables 4-1 and 5-1 can be updated. At the same time, emerging technologies can be incorporated into the manual, where appropriate.
- A protocol should be developed to evaluate the effectiveness of BMPs.
- The principles of soil preservation or creation of soil teas should be added to section 2.3. Preserving soils, especially the top layers, is vital to the growth of healthy plants.
- In section 3.5, step 10, we recommend adding a bullet that mentions whether the BMP is permanent or not.
- In section 3.5, we recommend adding a step 12 that discusses the removal of temporary BMPs.

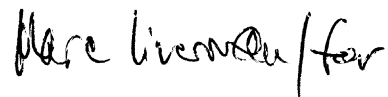
Implementation of the erosion control program and BMPs discussed in the technical manual should reverse the current trend of habitat and water quality degradation. The program and the technical manual address the concerns outlined in consideration nine of limit 12 of the 4(d) rule, and focuses on the prevention of erosion and sediment runoff during and after construction. The manual provides measures to detain flows, stabilize soils and slopes, protect and stabilize channels and outlets, and protect drain inlets. Ongoing monitoring will determine the effectiveness of the program, and accountability measures will determine how effective communities are in implementing the program. We commend this effort to develop guidelines for development and redevelopment that are compatible with salmon protection and recovery.

Implementation of the program will likely be among the jurisdiction's greatest challenges. Convincing developers to incorporate the design solutions will require integrating educational and regulatory approaches. Local communities will need to address education of the community, and particularly contractors. In addition, future evaluations at both the project and program levels should include an analysis of stormwater management solutions and should monitor whether the program meets the goal of protection of natural hydrological function.

Thank you for this opportunity to comment on the model erosion control program. We see the program as an important step in reversing the trend of habitat degradation within watersheds throughout the state of Oregon. The program and best management practices, if properly installed and maintained, will support the ongoing efforts to protect salmon habitats in Oregon.

If you have questions about this letter, please contact Dr. Nancy Munn of my staff in the Oregon Habitat Branch at 503.231.6269.

Sincerely,

A handwritten signature in black ink, appearing to read "Mare Live.../for".

Michael Tehan  
Chief, Oregon Habitat Branch  
Habitat Conservation Division

cc: Kevin Masterson, Oregon DEQ  
Ken Carlson, CH2M Hill