Chapter 17D
Federal Agency Measures

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Federal Agency Participation in the Oregon Coastal Salmon Restoration Initiative

I. Roles of Federal Agencies in Oregon Coastal Salmon Restoration Initiative

Commitment

The overall Federal agency commitment to the Oregon Coastal Salmon Restoration Initiative (OCSRI) goals is significant. More than 12 federal agencies involved with managing resources within the Pacific Northwest have either a direct or indirect effect on the objectives outlined in the OCSRI. These agencies have pledged their involvement and participation in developing actions for recovery of the salmon. Their various roles include oversight, regulation development, enforcement, resource management, and technical assistance.

Each participating Federal agency will make contributions to the OCSRI plan consistent with its authorities and mandates. For the Bureau of Land Management (BLM), U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) an important goal is to conserve and restore aquatic ecosystems. The Natural Resources Conservation Service, which does not have land management responsibility, provides resource management assistance to private landowners on a voluntary basis. Other Federal agencies will contribute in ways consistent with their missions and authorities.

Ongoing Cooperative Efforts

Federal agency involvement in development and implementation of a comprehensive conservation and restoration plan for Pacific salmon is being facilitated in part by the Pacific Salmon Task Force, which was formed in 1994 by President Clinton to optimize use of Federal expertise and resources. Guiding the effort is a Memorandum of Agreement signed by the White House Office on Environmental Policy; the Departments of Commerce, Interior, Army, Energy, and Agriculture; and the Environmental Protection Agency. The Agreement states that Federal agencies will work together with non-federal stakeholders in the development and implementation of conservation and restoration plans.

The Agreement also established the Pacific Salmon Coordinating Committee (PSCC) in the Northwest, composed of 12 agency members to coordinate specific activities within these plans. Among the activities are regulatory, research, monitoring, public information, budgetary, and intergovernmental efforts to conserve and restore Pacific salmon stocks. The role of the PSCC is consistent with the principles of intergovernmental and private cooperation required in the OCSRI.
Federal agency commitment to the OCSRI is also demonstrated in a Memorandum of Understanding (MOU) recently signed by the State of Oregon and the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, National Marine Fisheries Service, National Park Service, Forest Service, Bureau of Land Management, Bureau of Indian Affairs, Bureau of Reclamation, Environmental Protection Agency, and the Corps of Engineers. This MOU establishes a common and needed strategy among all entities in the shared basic goal of managing for healthy and sustainable watersheds. Specifically, the signatories:

- Commit to a local focus and strategy, recognizing that the initiative must be generated locally.
- Define desired end-results, while allowing local efforts to use the structure and process that is responsive to their needs, interests, and capabilities.
- Acknowledge healthy watersheds as a common goal.
- Commit a policy-level person to address issues and barriers of the watershed/community-based efforts.

Another demonstration of Federal agency commitment is a draft MOU, which is in final development, among the State of Oregon, Natural Resources Conservation Service, Fish and Wildlife Service, and the National Marine Fisheries Service. The purpose of this MOU is to contribute to the conservation of species of concern and their habitats by facilitating cooperation with local Soil and Water Conservation Districts, Watershed Councils, Tribes, and non-Federal land users. This facilitation will be accomplished through a voluntary, watershed-based, locally driven approach to address implementation of the Endangered Species Act (ESA) on non-Federal lands in Oregon. Specific MOU objectives are to:

- Accelerate implementation of voluntary changes in resource management on non-Federal lands.
- Make Farm Bill and other funds available to those who want to implement management systems under the discretion of NRCS.
- Provide interested agricultural land users with a way to achieve regulatory certainty under Federal and State endangered species laws.
- Create a process that provides fully coordinated and consistent technical assistance to watershed planning efforts and reviews/consultations under the ESA.

The Northwest Forest Plan (NFP), dated April of 1994 and signed by the Secretaries of the Department of Agriculture and Department of the Interior, is another example of interagency cooperation that supports OCSRI objectives. This document set in motion unprecedented action for managing federal lands within Washington and Oregon, with a focus on restoring aquatic ecosystems.
Specific Actions

Several policies and ongoing programs that are underway for development of interagency organizations and initiatives are consistent with achieving the goals and objectives of the OCSRI. These cooperative efforts have resulted in more effective natural resource management.

One of the foremost cooperative efforts is the Northwest Forest Plan, which has established an interagency organization to oversee plan implementation. Regional Directors of the Federal agencies serve on the Intergovernmental Advisory Committee (IAC) and the Regional Interagency Executive Committee (RIEC) to collaboratively develop policy guidance for NFP implementation. These two committees are supported by the Regional Ecosystem Office (REO), a senior-level policy and technical staff group. This framework provides executive oversight of specific actions necessary to meet plan and resource needs.

An objective of the NFP is to restore and maintain the ecological health of watersheds and aquatic ecosystems on lands managed by the U.S. Forest Service and the Bureau of Land Management within the range of the northern spotted owl. A cornerstone of the NFP is the Aquatic Conservation Strategy (ACS), which was designed to protect salmon and steelhead habitat. Successful implementation of the NFP is essential to attaining long-term goals of protection and restoration of aquatic habitats on public lands. Successful implementation of the OCSRI will allow recovery of species and habitats across whole basins, regardless of ownership.

Among the various actions and programs identified by the federal agencies that support the OCSRI are common research, monitoring and evaluation needs, data sharing and acquisition, watershed restoration efforts, technical and financial assistance, and public outreach and education. The effectiveness of these activities depends on detailed actions, often developed through memorandums and interagency facilitations. The Pacific Salmon Coordinating Committee can serve as the executive interagency forum for sanctioning and promoting agency involvement in the OCSRI. Development of additional and more specific measures will require ongoing and periodic coordination among the executive and technical staffs of federal and key state and county agencies. This compilation of federal measures represents an important outcome in the establishment of federal agencies' cooperation and commitments to the OCSRI goals and objectives.
II. Overview of Individual Federal Agency Roles and Activities for Phases 1 and 2

This section summarizes the traditional roles of those federal agencies involved with the management of natural resources in Oregon and explains how their management actions link with the OCSRI. Federal agencies identified as supporting participants at this stage in the Oregon Coastal Salmon Restoration Initiative are:

- BLM - Bureau of Land Management
- EPA - Environmental Protection Agency
- COE - Army Corps of Engineers
- NMFS - National Marine Fisheries Service
- NRCS - National Resource Conservation Service
- USFS - United States Forest Service
- USFWS - United States Fish and Wildlife Service
- BPA - Bonneville Power Administration
- BIA - Bureau of Indian Affairs
- BOR - Bureau of Reclamation
- FHA - Federal Highway Administration

These agencies, through use of existing authorities, contribute to accomplishment of the goals and objectives of the OCSRI. The following text identifies individual agency authorities and their roles and planned activities that can directly serve recovery of aquatic ecosystems. The measures are designated as either Phase 1 or Phase 2:

- **Phase 1** - Activities that can be implemented with existing resources and budgets.
- **Phase 2** - Activities that require additional resources, budget, and/or legislation to implement.

The lists of activities are estimates only and focus on those activities currently being done or expected to be implemented soon. Additional or future work accomplishments will depend on funding and staffing to be defined through the cooperative interagency process. Long-term commitments identified to date are described in Section III, but their details are still in the formulation process.

**Major Public Land Managers**

The BLM and USFS are major public land managers within the area affected by the OCSRI, together administering over 3.5 million acres of public land there. USFS-administered lands tend to be larger contiguous blocks, while BLM-administered lands are intermingled with private lands. Public lands tend to represent the upper and mid-elevation portions of watersheds, with private lands occupying the lower valleys. Both agencies manage lands under multiple use and sustained yield mandates to provide for production of commodity and non-commodity goods, while maintaining and restoring ecosystems.
Major laws governing BLM and/or USFS actions include: The National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), Fish and Wildlife Coordination Act (FWCA), Federal Land Policy and Management Act (FLMPA), Oregon and California Lands Acts (O&C), Endangered Species Act (ESA), Coastal Zone Management Act (CZMA), Clean Air Act (CAA), and the Clean Water Act (CWA).

As described in the previous section, an important planning and management document for both BLM and USFS is the Northwest Forest Plan. A key element of the Northwest Forest Plan is the Aquatic Conservation Strategy, a framework for managing federal lands with an emphasis to restore habitats for stocks at risk, including various salmon and trout. The Strategy has four main elements to achieve its objectives: Riparian reserve identification and management, key watershed delineation, watershed analysis, and watershed restoration.

Riparian Reserves are portions of watersheds where riparian-dependent resources receive primary emphasis and where special management standards and guidelines apply. The reserves are of varied width, depending upon whether or not they are fish bearing, permanently flowing, or intermittent. Specifically, the reserves are designed to maintain ecological function and to protect streams and riparian habitat and water quality.

Key watersheds represent a system to serve as refugia that is critical for maintaining and recovering habitat for at-risk stocks of anadromous fish and resident fish species. These watersheds represent both good and low quality habitat, with good habitat conditions serving as the anchor points for the potential recovery of stocks, and low quality habitat having a high potential for restoration. Two types of key watersheds were identified: Tier 1 were selected for directly contributing to the conservation of at-risk species, and Tier 2 for important sources of high water quality.

Watershed analysis is a systematic procedure for characterizing watershed and ecosystem processes to meet specific management and social objectives. Analysis findings guide planning and help identify restoration strategies. It provides a process for linking federal and non-federal land coordination and planning.

Watershed restoration is the direct linkage of activities that contribute to the recovery of fish and improvement of riparian habitat and water quality. Three important elements include control and prevention of road-related runoff and sediment; improvement of riparian vegetation; and improvement of instream habitat.

These components of the Aquatic Conservation Strategy help in establishing the context and process for defining management actions that are consistent with restoring, protecting, and maintaining aquatic habitat. The use of these tools across whole basins will assist agencies in developing an appropriate timing and sequencing of management and restoration actions.
Both the USFS and the BLM have authority to work cooperatively with other governmental entities and private enterprises to accomplish work consistent with their missions. Activities include long-term ongoing programs and recently established congressional direction. Consistent between the agencies are joint programs such as the “Bring Back the Natives” initiative and Challenge Cost-Share appropriations. These nationally-funded programs promote activities that address whole basin management and restoration, regardless of land ownership. There are also cooperative agreements on transportation management and access, law enforcement, and wildland fire suppression. Professional staff assistance and consultation has typically been available upon request.

The BLM historically has had limited authority to expend federal funds on private lands; however, an amendment to the 1997 appropriations bill increased Federal agency flexibility to respond to resource needs on private lands. Policy and direction on the use of this authority are presently being developed at the national level.

The USFS has a state and private forestry branch that exclusively addresses state and private land interactions. Congress provides an annual appropriation through this program to support natural resource related actions. While this program has historically focused on forestry and reforestation issues, its role has broadened recently to include other resource areas. Funds are typically transferred directly to the State Department of Forestry for distribution to participating private landowners.

**BLM and USFS Phase 1 Activities**

Both the BLM and USFS annually plan and complete activities that support restoration of aquatic habitat, which can complement work on private lands. BLM and USFS activities planned for 1997 that most directly contribute to the goals and objectives of the OCSRI are listed below by four primary categories: Inventory and Monitoring; Planning and Assessment; Education and Interpretation; and Habitat/Watershed Restoration. The location of activities is identified by river basin name at the 4th field Hydrologic Unit Code (HUC), which is a designation denoted by the U.S. Geological Survey for managing the national water data network. Activities conducted in most or all districts or forests are identified in the category discussions; additional or specific activities are listed by district or forest discussion.
Bureau of Land Management

Five BLM districts have lands located within the area addressed in the OCSRI: Salem, Eugene, Roseburg, Coos Bay, and Medford.

Contact persons for additional information about BLM roles or activities are:

Oregon State Office: Karl Stein (503-952-6418)
Salem District: Matt Walker (503-815-1145)
Effie Frazier (503-815-5964)
Amy Haynes (503-815-5955)
Eugene District: Neil B. Armantrout (541-683-6451)
Roseburg District: Donald T. Rivard (541-440-4930, ext. 207)
Coos Bay District: Karen Smith (541-756-0100, ext. 420)
Michael S. Kellett (541-756-0100, ext. 465)
Medford District: Jon Raby (541-770-2364)
Dale Johnson (541-770-2339)

Phase 1 Activities

Phase 1 activities identified by the BLM are listed below by district, specific activity, and basin location.

BLM1 - Inventory and Monitoring

Districts conduct the following activities: collect data on relative fish abundance and habitat utilization, monitor stream restoration projects, and establish baseline temperature profiles. The inventory and monitoring activities will be conducted at known locations where coho salmon and other sensitive anadromous species reside for some period of their life history cycle. The identified locations are 4th field HUCs.

**Salem District**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream inventories *</td>
<td>Nestucca and Alsea</td>
</tr>
<tr>
<td>Spawning surveys</td>
<td>Nestucca</td>
</tr>
<tr>
<td>Temperature sampling</td>
<td>Nestucca</td>
</tr>
<tr>
<td>Smolt trapping*</td>
<td>Alsea (2 sites)</td>
</tr>
<tr>
<td>Adult fish trapping*</td>
<td>Siletz</td>
</tr>
</tbody>
</table>

* Cooperative effort with ODFW
Conduct spawning ground counts for coho salmon on about 45 miles of habitat within the Siuslaw River Basin to monitor management activities and to evaluate habitat restoration efforts. Evaluate individual habitat projects at several locations throughout the Siuslaw River Basin. Continue operation of smolt trap on Wolf Creek as part of the evaluation and monitoring of management and restoration activities.

### Activity Table

<table>
<thead>
<tr>
<th>Spawning ground counts</th>
<th>Siuslaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smolt trapping</td>
<td>Siuslaw</td>
</tr>
<tr>
<td>Habitat restoration monitoring</td>
<td>Siuslaw</td>
</tr>
</tbody>
</table>

### Eugene District

Conduct monitoring to provide information on instream structure used by coho salmon adults and juveniles; measure invertebrate population response to aquatic habitat restoration projects; and evaluate the effectiveness of riparian habitat enhancement projects.

### Roseburg District

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coho spawning surveys *</td>
<td>Mainstem Umpqua/Smith (7 sites)</td>
</tr>
<tr>
<td></td>
<td>North Umpqua (4 sites)</td>
</tr>
<tr>
<td></td>
<td>South Umpqua (8 sites)</td>
</tr>
<tr>
<td>Smolt trapping</td>
<td>Mainstem Umpqua/Smith** (1 site)</td>
</tr>
<tr>
<td></td>
<td>North Umpqua *** (1 site)</td>
</tr>
<tr>
<td></td>
<td>New in 1997 (2 sites, undetermined)</td>
</tr>
<tr>
<td>Population estimate studies</td>
<td>Mainstem Umpqua/Smith</td>
</tr>
<tr>
<td></td>
<td>North Umpqua (1 site)</td>
</tr>
<tr>
<td></td>
<td>South Umpqua (1 site)</td>
</tr>
</tbody>
</table>

* Surveys done on BLM-administered lands with BLM personnel in conjunction and coordinated with the ODFW Umpqua basinwide annual surveys.
** Cooperative effort with ODFW (Brush Creek)
*** Cooperative effort with Umpqua National Forest (Little River).

### Coos Bay District

Conduct monitoring to provide information on instream structure used by coho salmon adults and juveniles; measure invertebrate population response to aquatic habitat restoration projects; and evaluate the effectiveness of riparian habitat enhancement projects.
Activity

Habitat inventories
Riparian inventories and monitoring
Instream structure monitoring
Spawning surveys (15)
Water temperature monitoring
Culvert inventory
Summer/winter juvenile coho population surveys (3)
Aquatic macro invertebrate monitoring

Activity

Juvenile out-migrant trapping
Restoration project monitoring
Spawning surveys
Stream temperature monitoring
Stream habitat inventory

Basin Location

Coos and Coquille
Coos, Coquille, and Mainstem Umpqua/Smith
Mainstem Umpqua/Smith
Coquille
Coquille (13 sites)
Coquille
Coquille

Medford District

Activity

Flood inventory data assessments
Watershed analyses
East Fork Lobster habitat improvement design

Basin Location

Nestucca and Alsea
Nehalem and Alsea
Alsea

BLM2 - Planning and Assessment

Conduct activities including watershed analyses; assessment of stream channel and instream structure damage from the February 1996 flood; late-successional reserve (LSR) assessments where needed; regular, programmatic activities such as identifying, addressing, and analyzing of fish, aquatic habitat, and hydrological issues; and design for future watershed restoration projects. Provide the information and recommendations to managers for use in decision-making.

Salem District

Activity

Flood inventory data assessments
Watershed analyses

Basin Location

Nestucca and Alsea
Nehalem and Alsea

OCSRI Conservation Plan
March 10, 1997

Federal Agency Workplans
17D-10
### Eugene District

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSR Assessments</td>
<td>Siuslaw and Mainstem Umpqua/Smith</td>
</tr>
</tbody>
</table>

### Roseburg District

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed Analyses</td>
<td>Mainstem Umpqua/Smith (1 site)</td>
</tr>
<tr>
<td></td>
<td>North Umpqua (1 site)</td>
</tr>
<tr>
<td></td>
<td>South Umpqua (2 sites)</td>
</tr>
<tr>
<td>LSR Assessments</td>
<td>Mainstem Umpqua/Smith (1 site)</td>
</tr>
<tr>
<td></td>
<td>North Umpqua (1 site)</td>
</tr>
<tr>
<td></td>
<td>South Umpqua (1 site)</td>
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</tbody>
</table>

### Coos Bay District

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed analyses</td>
<td>Mainstem Umpqua/Smith (1 site)</td>
</tr>
<tr>
<td></td>
<td>Coquille (2 sites)</td>
</tr>
<tr>
<td>LSR Assessments</td>
<td>South Umpqua, Mainstem Umpqua/Smith, Coos, Coquille, Sixes/Elk, and Chetco</td>
</tr>
<tr>
<td>Watershed Restoration Planning</td>
<td>Mainstem Umpqua/Smith, Coos, and Coquille</td>
</tr>
</tbody>
</table>

### Medford District

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed Analyses</td>
<td>Upper Rogue (1 site)</td>
</tr>
<tr>
<td></td>
<td>Middle Rogue (2 sites)</td>
</tr>
</tbody>
</table>

### BLM3 - Education and Interpretation

Facilitate tours of various projects including stream improvement and silvicultural treatments; participate in annual meetings of professional groups; provide written materials, oral information, and speakers for the public as requested; interact with a variety of groups concerned about salmon.
and their habitat; provide logistical support in public education and outreach by developing videos, brochures, and slide presentations; and cooperate with watershed councils.

**Salem District**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tours</td>
<td>Nestucca</td>
</tr>
</tbody>
</table>

**Eugene District**

Continue participation in the Salmon Watch Program. Support two Watchable Wildlife sites established for salmon spawning and pursue a third opportunity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmon Watch</td>
<td>Siuslaw</td>
</tr>
<tr>
<td>Watchable Wildlife</td>
<td>Siuslaw (2 sites)</td>
</tr>
<tr>
<td>Public Information</td>
<td>Siuslaw</td>
</tr>
</tbody>
</table>

**Roseburg District**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campground talks (8)</td>
<td>Entire basin</td>
</tr>
<tr>
<td>School visits (8)</td>
<td>Entire basin</td>
</tr>
<tr>
<td>(elementary to high school)</td>
<td>Entire basin</td>
</tr>
<tr>
<td>Fishing Derby (2)</td>
<td>Entire basin</td>
</tr>
<tr>
<td>Free Fishing Day (1)</td>
<td>Entire basin</td>
</tr>
<tr>
<td>Forestry tour (1)</td>
<td>Entire basin</td>
</tr>
</tbody>
</table>

**Coos Bay District**

Avail fisheries staff to work with the Coquille Watershed Association and other Bring Back the Natives cooperators in the design and staffing of a Coos County fair booth to increase public awareness of ongoing aquatic and riparian restoration projects and to encourage public support and volunteers for future projects.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coos County Fair booth</td>
<td>Coquille</td>
</tr>
<tr>
<td>Educational materials development</td>
<td>Coquille</td>
</tr>
</tbody>
</table>
Coordinate with the Upper Rogue Watershed Council on project planning and development. Facilitate presentations to elementary school students in the Upper and Middle Rogue River area on the elements of a healthy watershed, including education on fish and their habitat.

**Activity**

| Elementary school watershed education | Upper and Middle Rogue |
| Work with watershed council            | Upper Rogue            |
| Hoover School Shadow Day               | Upper and Middle Rogue |

******/

**BLM4 - Habitat and Watershed Restoration**

Conduct riparian enhancement project sites at known locations where coho salmon congregate.

**Salem District**

Plant vegetation in riparian areas where the February 1996 floods have left large sediment deposits and in riparian areas that do not have significant conifer. Specific activities include release of conifers by falling of alder, planting of conifers after removal of blackberries and other brush, and thinning stands of trees. Expected benefits to coho and steelhead include shade, input of organic material, bank stability, and the long-term potential for coarse woody debris.

**Activity**

| Tree planting and conifer release in riparian areas | Nestucca/Tillamook Bay Tributaries and Alsea |

**Eugene District**

Improve fish passage at Hult Pond Dam and several road culverts in upper Lake Creek of the Siuslaw River Basin. Complete stream channel and riparian restoration at sites in the mainstem Siuslaw River, Wolf Creek, and selected tributaries.

**Activity**

| Salmon Passage | Siuslaw River and Lake Creek |
| Riparian Restoration | Siuslaw |
| Habitat Restoration  | Siuslaw |
Conduct restoration projects utilizing funds from Jobs-in-the-Woods (JITW) and Emergency Relief for Federally Owned Roads (ERFO) in association with timber sales.

**Activity**  
Road decommissioning (basinwide)  
Culvert replacements, fish-bearing streams  
Riparian Fencing  
Instream structures (tree pulling)

**Basin Location**  
As much as possible on BLM-managed lands  
Mainstem Umpqua/Smith (14 sites)  
North Umpqua (1 site)  
South Umpqua (2 sites)  
Mainstem Umpqua/Smith (1 site)  
South Umpqua (1 site)  
Mainstem Umpqua/Smith (1 site)

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**Coos Bay District**

Replace 13 large culverts to provide for fish and amphibian passage. Design replacement culverts to benefit all life stages of coho salmon. Perform manual maintenance and interplants on eight riparian restoration projects.

**Activity**  
Large culvert replacement  
Maintenance of riparian silviculture projects

**Basin Location**  
Mainstem Umpqua/Smith, Coos, and Coquille  
Coquille (8 sites)

---

**Medford District**

Conduct stream and watershed restoration projects such as stabilizing cutbanks and decommissioning roads to improve fish habitat, restore fish passage, and reduce sediment from roads.

**Activity**  
Stream restoration  
E. F. Evans Creek Diversion Dam Removal  
Culverts replaced for fish passage  
Road stabilization  
Road decommissioning

**Basin Location**  
Upper Rogue (1 site) and Lower Rogue (1 site)  
Middle Rogue (1 site)  
Middle Rogue  
Upper and Middle Rogue  
Upper and Middle Rogue

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*OCSRI Conservation Plan  
March 10, 1997*

*Federal Agency Workplans  
17D-14*
U.S. Forest Service

Four National Forests are located within the area addressed in the OCSRI: Siuslaw, Umpqua, Rogue River, and Siskiyou.

Contact persons for additional information about USFS roles or activities are:

<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Person</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>USFS Region 6 Office</td>
<td>Dave Heller</td>
<td>503-326-6637</td>
</tr>
<tr>
<td>Siuslaw National Forest</td>
<td>Michael Clady</td>
<td>541-750-7053</td>
</tr>
<tr>
<td>Umpqua National Forest</td>
<td>Jeff Dose</td>
<td>541-957-3301</td>
</tr>
<tr>
<td>Rogue River National Forest</td>
<td>Melanie Vael Anderson</td>
<td>541-858-2276</td>
</tr>
<tr>
<td>Siskiyou National Forest</td>
<td>Randy Frick</td>
<td>541-471-6533</td>
</tr>
</tbody>
</table>

Phase 1 Activities

USFS1 - Inventory and Monitoring

Activities in this category provide basic data that supports other categories, particularly assessing ecological conditions that drive planning and implementation of aquatic restoration activities. Additionally, this information is critical in planning and assessing effects of other Forest activities such as timber sales, road construction, grazing allotments, mining, recreational developments, and wildlife habitat management to eliminate or minimize adverse impacts on fish and their habitat.

Some inventories (such as Level II stream surveys) are general in nature and provide an overall watershed-scale assessment of aquatic conditions. Others, such as out-migrant trapping and spawning surveys, provide stream and site-specific information about production, populations, or distribution of a given species and life-stage.

Inventories are divided into extensive: Level II stream surveys, which include the fish-bearing stream segments; and intensive: surveys of less than a mile in length each. Level II stream surveys use standard regional protocols to characterize stream habitat conditions and fish distribution. Examples of intensive surveys are Level III surveys, productive flat monitoring, microhabitat mapping, structure durability surveys and spawning surveys. Current emphasis for intensive surveys include streams with coho salmon and response areas downstream of focal areas for watershed restoration. Most watershed restoration is being done in Key Watersheds of the Northwest Forest Plan.

There are cooperative efforts with the Oregon Department of Fish and Wildlife and various other partners to complete juvenile salmonid census surveys.

Siuslaw National Forest

In the Siuslaw National Forest, there are seven 4th-Field HUCs (Nestucca portion of Wilson/Trask, Siletz/Yaquina, Alsea, Siuslaw, Siltcoos, Umpqua, and Coos).
<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
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<tbody>
<tr>
<td>Level II Stream Survey (98 mi.)</td>
<td>Nestucca, Siletz, Alsea, Siltcoos, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Level III Instream Structure Monitoring</td>
<td>Nestucca, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>(5 projects)</td>
<td></td>
</tr>
<tr>
<td>Out-migrant Trapping</td>
<td>Siletz, Alsea, and Siuslaw (5 sites)</td>
</tr>
<tr>
<td>Spawning/Redd Surveys</td>
<td>Nestucca, Siletz, Alsea, Siltcoos, Siuslaw, and Umpqua (10 reaches)</td>
</tr>
<tr>
<td>Upstream Migrant Trapping</td>
<td>Siletz and Alsea (2 sites)</td>
</tr>
<tr>
<td>Tenmile Whole-Basin Restoration Effectiveness</td>
<td>Alsea</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Nestucca, Siletz, Alsea, Siltcoos, Siuslaw, Coos and Umpqua (about 80 sites)</td>
</tr>
<tr>
<td>Water Temperature Monitoring</td>
<td></td>
</tr>
</tbody>
</table>

**Umpqua National Forest**

The activities are proposed for both 4th-field HUCs in the Umpqua National Forest.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II Stream Survey (90 mi.)</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Modified Pfankuch Channel Survey (60 mi.)</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Outmigrant Trapping</td>
<td>North and South Umpqua (4 sites)</td>
</tr>
<tr>
<td>Spawning/Redd Surveys (6 reaches)</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Macroinvertebrate Biomonitroing</td>
<td>North and South Umpqua (35 sites)</td>
</tr>
<tr>
<td>Restoration Effective Monitoring</td>
<td>North and South Umpqua (4 sites)</td>
</tr>
<tr>
<td>Water Temperature Monitoring</td>
<td>North and South Umpqua (about 45 sites)</td>
</tr>
</tbody>
</table>

**Rogue River National Forest**

Of concern on the Rogue River National Forest are the N. California/S. Oregon coho and Klamath Mountain Province steelhead, both candidates for Federal listing. Because all anadromous streams on the Forest are in Key Watersheds, they receive highest priority in both baseline inventory and ongoing monitoring projects. Initial coho spawning surveys will be completed in 1997 in selected Key Watershed streams by ODFW crews.

The Rogue Basin Water Temperature Monitoring Project, coordinated through Rogue River National Forest Hydrology Program, is in its fourth year of data gathering and summarization. Annual reports are produced from this effort. This is a multi-agency effort involving state and federal agencies.
Project effectiveness monitoring utilizes regional protocols (Level III) to produce a more detailed "snapshot" of stream reach condition, both before and after project implementation, than is possible through Level II stream surveys.

The macroinvertebrate monitoring program is in its seventh year on the Forest, with different streams having baseline surveys each year.

The Aquatic Ecology component of the Forest Ecosystem Monitoring Plan (FEMP) is being formulated currently and should be completed along with the FEMP during FY-97.

Two 4th-Field Watersheds contain anadromous habitat on the Rogue River National Forest: Upper Rogue and Applegate.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II Stream Survey</td>
<td>Upper Rogue and Applegate</td>
</tr>
<tr>
<td>Spawning Surveys</td>
<td>Upper Rogue and Applegate</td>
</tr>
<tr>
<td>Water Temperature Monitoring</td>
<td>All Rogue River National Forest 4th Field HUCs (20 sites)</td>
</tr>
<tr>
<td>Project Effectiveness Monitoring</td>
<td>Upper Rogue and Applegate (2 sites)</td>
</tr>
<tr>
<td>Macroinvertebrate Monitoring (4 reaches)</td>
<td>All Rogue River National Forest 4th Field HUCs</td>
</tr>
<tr>
<td>Forest Ecosystem Monitoring Plan</td>
<td>All Rogue River National Forest 4th Field HUCs</td>
</tr>
</tbody>
</table>

Siskiyou National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II Stream Survey (70-85 miles)</td>
<td>Chetco, Illinois, Lower and Middle Rogue, and Sixes</td>
</tr>
<tr>
<td>Level III Surveys (8 sites) and structure durability (4 sites)</td>
<td>Coquille, Illinois, Lower and Middle Rogue</td>
</tr>
<tr>
<td>Smolt Trapping and Juvenile Counts</td>
<td>Coquille, Illinois, Lower and Middle Rogue</td>
</tr>
<tr>
<td>Temperature Monitoring</td>
<td>Applegate, Chetco, Coquille, Illinois, Lower and Middle Rogue, Sixes, and Smith River (Calif.). (about 50 sites)</td>
</tr>
<tr>
<td>Spawning Surveys</td>
<td>Applegate, Coquille, Illinois, Lower and Middle Rogue (12 sites)</td>
</tr>
<tr>
<td>Macroinvertebrate Sampling</td>
<td>Illinois and Middle Rogue (6-15 sites)</td>
</tr>
</tbody>
</table>

USFS2 - Planning and Assessment
Planning and assessment occurs at multiple levels, from specific projects to basinwide assessments. Activities in this category provide context and direction for forest management and restoration. Protection and recovery of aquatic resources, including anadromous fish, through implementation of the Aquatic Conservation Strategy (ACS) is a major emphasis of the Northwest Forest Plan. An integral part of the ACS is Watershed Analysis. These activities occur at multiple hydrologic scales, the broadest being an entire river basin, such as the Siuslaw and the smallest being a specific project site. The nature of the assessments are also variable, ranging from site-specific direct effects to cumulative watershed effects at many scales. Some activities, such as project planning for habitat restoration or timber sales have well established protocols, others, such as Watershed Analysis at the 20-200 square mile scale, are relatively new, and some, such as River Basin Assessments and Cutthroat Recovery Planning are untried.

Activities associated with the legal requirements of the Endangered Species Act such as consultations, preparation of Biological Assessments, and development of an Analysis Matrix, has caused the Forest to coordinate with numerous other Federal entities within the Coast Range. Although many activities are already initiated, participation in the River Basin Assessments and Cutthroat Trout Recovery Planning is anticipated in 1997. Assessments of existing conditions and planning to help ensure effective protection and restoration of streams inhabited by Umpqua cutthroat trout and coho salmon are the highest priority areas on the Forest.

### Siuslaw National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Planning (non-restoration) Siuslaw,</td>
<td>Nestucca, Siletz/Yaquina, Alsea,</td>
</tr>
<tr>
<td>Restoration Project Planning Siuslaw,</td>
<td>Siltcoos, Umpqua, and Coos</td>
</tr>
<tr>
<td>Watershed Analysis (7 assessments)</td>
<td>Nestucca, Siletz/Yaquina, Alsea,</td>
</tr>
<tr>
<td>River Basin Assessments</td>
<td>Siltcoos, Umpqua, and Coos</td>
</tr>
<tr>
<td>Cutthroat Recovery Planning Biologcal Assessments/Matrix</td>
<td>Nestucca, Alsea, Siuslaw, Umpqua</td>
</tr>
<tr>
<td>Late-Successional Reserve Planning</td>
<td>Nestucca, Siletz/Yaquina, Alsea,</td>
</tr>
<tr>
<td>Adaptive Management Area Planning</td>
<td>Siuslaw, Siltcoos, Umpqua, and Coos</td>
</tr>
<tr>
<td>Coordinated Resource Management Planning</td>
<td>Umpqua</td>
</tr>
</tbody>
</table>

### Umpqua National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCSRI Conservation Plan</td>
<td>Nestucca, Siletz/Yaquina, Alsea,</td>
</tr>
<tr>
<td>March 10, 1997</td>
<td>Siltcoos, Umpqua, and Coos</td>
</tr>
<tr>
<td>Federal Agency Workplans</td>
<td>Nestucca, Alsea, Siuslaw, Umpqua</td>
</tr>
<tr>
<td>17D-18</td>
<td>Nestucca, Siletz/Yaquina, Alsea,</td>
</tr>
<tr>
<td></td>
<td>Siuslaw, Siltcoos, Umpqua, and Coos</td>
</tr>
<tr>
<td></td>
<td>Umpqua</td>
</tr>
<tr>
<td></td>
<td>Nestucca and Siletz</td>
</tr>
<tr>
<td></td>
<td>Siuslaw and Lower Umpqua</td>
</tr>
<tr>
<td>Activity</td>
<td>Basin Location</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>Project Planning (non-restoration)</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Restoration Project Planning</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Watershed Analysis (20-200 mile sq.)</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>River Basin Assessment</td>
<td>All 4th Field HUCs in Umpqua National Forest</td>
</tr>
<tr>
<td>Cutthroat Recovery Planning</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Biological Assessments/Matrix</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Interagency Cumulative Effects Analysis</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Hydropower Relicensing</td>
<td>North Umpqua</td>
</tr>
<tr>
<td><strong>Rogue River National Forest</strong></td>
<td></td>
</tr>
<tr>
<td>Includes specific projects to Rogue Basinwide</td>
<td></td>
</tr>
<tr>
<td>Environmental Assessment for the combined</td>
<td></td>
</tr>
<tr>
<td>annual programs of the Rogue River and</td>
<td></td>
</tr>
<tr>
<td>Siskiyou National Forests and Medford BLM</td>
<td></td>
</tr>
<tr>
<td>District. The Watershed Analysis Program is</td>
<td></td>
</tr>
<tr>
<td>in its final year of baseline documentation</td>
<td></td>
</tr>
<tr>
<td>for all Forest watersheds. Restoration</td>
<td></td>
</tr>
<tr>
<td>project planning is programmatically produced</td>
<td></td>
</tr>
<tr>
<td>by the interdisciplinary Forest Watershed</td>
<td></td>
</tr>
<tr>
<td>Restoration Team, ensuring that highest</td>
<td></td>
</tr>
<tr>
<td>priority projects are implemented in a</td>
<td></td>
</tr>
<tr>
<td>methodical fashion, with Key Watersheds</td>
<td></td>
</tr>
<tr>
<td>receiving the most attention and funding.</td>
<td></td>
</tr>
<tr>
<td>The Aquatic Resources staff provides planning</td>
<td></td>
</tr>
<tr>
<td>and assessment support for other resource</td>
<td></td>
</tr>
<tr>
<td>projects to ensure the maximum protection</td>
<td></td>
</tr>
<tr>
<td>level for aquatic and riparian resources.</td>
<td></td>
</tr>
<tr>
<td>This includes biological evaluations for all</td>
<td></td>
</tr>
<tr>
<td>projects planned within Key Watersheds to</td>
<td></td>
</tr>
<tr>
<td>evaluate specific impacts to coho and</td>
<td></td>
</tr>
<tr>
<td>steelhead.</td>
<td></td>
</tr>
<tr>
<td>Other Rogue River National Forest activities</td>
<td></td>
</tr>
<tr>
<td>supporting the OCSRI objectives include: the</td>
<td></td>
</tr>
<tr>
<td>Interagency Biological Assessment involving</td>
<td></td>
</tr>
<tr>
<td>annual program planning for all Federal</td>
<td></td>
</tr>
<tr>
<td>lands within the Rogue River Basin; and the</td>
<td></td>
</tr>
<tr>
<td>Late-Successional Reserve Assessment, which</td>
<td></td>
</tr>
<tr>
<td>is an interagency effort extending from the</td>
<td></td>
</tr>
<tr>
<td>Elk Creek drainage northward to the</td>
<td></td>
</tr>
<tr>
<td>Willamette National Forest.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed Analysis</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>Restoration Project Planning</td>
<td>All 4th Field HUCs in Rogue River National Forest</td>
</tr>
<tr>
<td>Other Project Planning</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Biological Evaluations</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Interagency Biological Assessment</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Late-Successional Reserve Assessment</td>
<td>Upper Rogue</td>
</tr>
</tbody>
</table>

**Siskiyou National Forest**
Activity

Watershed Analysis (7 analyses)
Project Planning (non-restoration)
Project Planning (watershed restoration)
Biological Assessments/Matrix Analysis

Basin Location

Chetco, Illinois, Lower Rogue, and Sixes
Chetco, Coquille, Illinois, Lower and Middle Rogue, and Sixes
Chetco, Coquille, Illinois, Lower and Middle Rogue, and Sixes
Chetco, Coquille, Illinois, Lower and Middle Rogue, and Sixes

******

USFS3 - Education and Interpretation

Information and education is an important part of the overall Forest aquatic resource program. Audiences include internal decision-makers, watershed councils, advocacy groups, college students, schoolchildren, regional and international periodical readers, and other public forums. Major work activities for 1997 include continuing technical assistance to local watershed councils, continuation of the outstanding environmental education programs such as Salmon Watch, and continuation of cooperative law enforcement program. Staff support is also given to technical transfer/professional development, which includes submitting papers and participating in peer reviews.
## Siuslaw National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed Council-Technical Team</td>
<td>Nestucca, Siletz, Alsea, and Siuslaw</td>
</tr>
<tr>
<td>Salmon Watch (20 field trips)</td>
<td>Yaquina, Alsea, and Siuslaw</td>
</tr>
<tr>
<td>Reedsport Salmon Fest</td>
<td>Umpqua</td>
</tr>
<tr>
<td>Alsea Forest Camp</td>
<td>Alsea</td>
</tr>
<tr>
<td>Elderhostel Presentations</td>
<td>Siletz, Alsea, and Umpqua</td>
</tr>
<tr>
<td>Free Fishing Day (5 sites)</td>
<td>Nestucca, Alsea, Siuslaw, and Siltcoos</td>
</tr>
<tr>
<td>Cooperative Presentations with the Corvallis Research Community (ODFW, OSU, PNW, COPE)</td>
<td>Nestucca, Alsea, and Siuslaw</td>
</tr>
<tr>
<td>Media requests, local and regional</td>
<td>All 4th Field HUCs in Siuslaw N.F.</td>
</tr>
<tr>
<td>Local Schools, various presentations</td>
<td>All 4th Field HUCs in Siuslaw N.F.</td>
</tr>
<tr>
<td>Local elected officials, briefings</td>
<td>All 4th Field HUCs in Siuslaw N.F.</td>
</tr>
</tbody>
</table>

## Umpqua National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watershed Council-Technical Team</td>
<td>All 4th Field HUCs in Umpqua National Forest</td>
</tr>
<tr>
<td>Umpqua Fishwatch</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>River Appreciation Day</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Environmental Law Symposium-Lecturer</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Ancient Forest Conference-Workshop Organizer</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Wilderness Appreciation Class-Lecturer</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Restoration Paper in Fisheries (Co-author)</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>National Forests article, National Geographic</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Peer reviewer, several journals</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Peer reviewer, State and local planning</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Media requests, local and regional</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Local Schools, various presentations</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
<tr>
<td>Local elected officials, briefings</td>
<td>All 4th Field HUCs in Umpqua N.F.</td>
</tr>
</tbody>
</table>

## Rogue River National Forest

The Rogue River Forest has a Natural Resource Education Group that cooperates with the Aquatic Ecology staff to produce quality educational experiences and information to a broad scope of audiences, both internally and externally. One specific technical assistance is to the Corps of Engineers in designing alternatives to restore unimpeded fish passage upgradient of the unfinished Elk Creek Dam.

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**OCSRI Conservation Plan**

*March 10, 1997*

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**Federal Agency Workplans**

17D-21
<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riverkeepers</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>National Fishing Week</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Rogue River Water Festival</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>Tech. Advice-Watershed Councils</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Salmon Watch</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>Wilderness Ethics Course Lecturer</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Salmon in the Classrooms</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>Watershed Restoration Workshop</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Watershed Inventory Workshop</td>
<td>Applegate</td>
</tr>
<tr>
<td>Public Radio Series: Traditional Uses</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Various School Presentations</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Video: What is a Watershed?</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Slideshow: Role of Woody Debris</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>American Indian Cultural Center</td>
<td>Applegate</td>
</tr>
<tr>
<td>Salmon Festival - Presenters</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Forest Presentation: American Indian Cultural Values of Salmon</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Public Presentations</td>
<td>Properly Functioning Condition Riparian Workshop</td>
</tr>
<tr>
<td>Properly Functioning Condition Riparian Workshop</td>
<td>Upper Rogue</td>
</tr>
<tr>
<td>Elk Creek Dam Passage - Tech. Consultation</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Region 6 American Indian Youth Practicum</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
<tr>
<td>Resource Specialists</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
</tr>
</tbody>
</table>

**Siskiyou National Forest**

The Siskiyou National Forest, ODFW, and many other partners collaborate with Rural Outdoor Education (ROE) to provide classroom presentations and assist with community service projects for aquatic and riparian work. The Forest also contributes funds and time to the ROE scholarship program. This effort awards college scholarships to students based on their contribution and enthusiasm for community service projects in streams and riparian zones.

The Forest cooperates with ODFW and numerous partners to present three National Fishing Week events about stream ecology and salmon life-history. District and Forest biologists on the Rogue River and South Coast continue to work closely with 16 watershed councils. Most fisheries biologists are members of watershed councils or serve as technical advisors. A local iteration of the Governor's Salmon Restoration Strategy is being coordinated by the Rogue Valley Council of Governments, which works with all watershed council leaders; the Forest is actively involved in this effort.

_OCSRI Conservation Plan_
March 10, 1997

**Federal Agency Workplans**

17D-22
Activity

Watershed Council Support (10 councils)

Rural Outdoor Education (5 schools and 3 scholarship watersheds)

National Fishing Week (3 events)

Basin Location

Applegate, Chetco, Coquille, Illinois, Lower and Middle Rogue, and Sixes

Coquille, Illinois, and Lower and Middle Rogue

Coquille, Illinois, and Lower Rogue
USFS4 - Habitat and Watershed Restoration

Actual on-the-ground restoration of watershed processes and aquatic habitats needed for recovery of depressed anadromous fish populations is the culmination of the inventories, monitoring, assessments, and planning activities described above. They are requisite elements for the restoration activities to have a high probability of long-term effectiveness. Research and analyses indicate that degraded in-channel conditions are symptoms of past land use practices that have caused substantial alteration of sediment and flow regimes, loss of structural elements, and altered riparian and upslope vegetation.

Timber harvest and associated activities, primarily road construction, have been the major land uses on the Siuslaw National Forest. The current reduction or cessation of those activities is facilitating restoration of sediment and flow regimes that are necessary first steps for effective in-stream habitat restoration. In most cases, treatment of road-related conditions and other upslope and riparian alterations is a key restoration activity. In some cases, restoration of large wood regimes in stream channel is also needed, especially when done in conjunction with other actions and designed to reconnect streams channels within their floodplains.

Streams in Key Watersheds are the highest priority areas for restoration activities. A major activity for 1997 will be repair of damage to riparian and instream habitat done by the February 1996 flood. Exact amounts and locations of restoration activities are undetermined. Total Forest expenditures for watershed restoration on these four Forests will exceed two million dollars.

### Siuslaw National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Obliteration</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Road Stormproofing (Waterbar)</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Road Sidecast/Landing Pullback</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Riparian Conifer Reestablishment</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Side-channel/Floodplain Reconnection</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Large Wood Introduction</td>
<td>Alsea and Siuslaw</td>
</tr>
<tr>
<td>(in-channel; 2 projects)</td>
<td>Alsea and Siuslaw</td>
</tr>
<tr>
<td>Flood Damage Repairs (13 projects)</td>
<td>Nestucca, Siletz, Alsea, Siuslaw, and Umpqua</td>
</tr>
<tr>
<td>Bailey Creek Natural Stream</td>
<td>Siuslaw</td>
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<tr>
<td>Channel Restoration</td>
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OCSRI Conservation Plan  
March 10, 1997
### Umpqua National Forest

<table>
<thead>
<tr>
<th>Activity</th>
<th>Basin Location</th>
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<tbody>
<tr>
<td>Road Obliteration</td>
<td>North and South Umpqua</td>
</tr>
<tr>
<td>Road Stormproofing</td>
<td>North and South Umpqua</td>
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<tr>
<td>Landslide Stabilization/Prevention</td>
<td>North and South Umpqua</td>
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<tr>
<td>Sidecast/Landing Pullback</td>
<td>North and South Umpqua</td>
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<tr>
<td>Riparian Vegetation Management</td>
<td>North and South Umpqua</td>
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<tr>
<td>Soil Decompaction (ripping)</td>
<td>North and South Umpqua</td>
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<tr>
<td>Side-channel/Floodplain Reconnection</td>
<td>North and South Umpqua</td>
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<tr>
<td>Large Wood Introduction (in-channel)</td>
<td>North and South Umpqua</td>
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### Rogue River National Forest

<table>
<thead>
<tr>
<th>Activity</th>
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<tbody>
<tr>
<td>Upland Revegetation</td>
<td>Applegate</td>
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<tr>
<td>Riparian Revegetation</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
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<tr>
<td>Instream Wood Addition</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
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<tr>
<td>Side-channel Establishment</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
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<tr>
<td>Upland Landslide Restoration</td>
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<tr>
<td>Road Decommissioning</td>
<td>All 4th Field HUCs in Rogue River N.F.</td>
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<tr>
<td>Municipal Water Ditch Repair</td>
<td>Applegate</td>
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### Siskiyou National Forest

The Siskiyou National Forest has 15 key watersheds, 14 in the Lower Rogue River and South Coast and the other in Smith River, California, where most watershed restoration activities will occur. Some non-key watersheds that have moderate populations of coho salmon or are identified core production areas will also have some watershed restoration activities. First iterations of watershed analysis are nearly completed on all watersheds on the Forest. Roads, principally in South Coast watersheds, have been identified as limiting salmonid production in many of these analyses.

Most restorative work on the westside of the Forest is related to restoring more natural drainage to road systems either by decommissioning the facility or improving drainage. Riparian areas, in early successions or previously harvested, are being planted or thinned to promote a late-successional age riparian forest. Fish passage problems, mostly associated with road culverts, are also high priority. Instream projects that can provide short-term habitat for spawning and rearing salmonids are concentrated on the eastside of the Forest. There are 33 projects planned for 1997.
Activity

Upslope Erosion Work
(1 project; 1% of total $)

Road Decommissioning
(16 projects; 60% of total $)

Stormproofing/Drainage Work to Roads
(1 project; 5% of total $)

Fish Passage through Road Facilities
(3 projects; 9% of total $)

Riparian Silviculture (5 projects; 13% of total $)

Instream Fish Habitat (8 projects; 12% of total $)

Basin Location

Illinois

Chetco, Coquille, Illinois, Lower and Middle Rogue

Across the Basin

Coquille

Chetco, Coquille, Illinois, and Middle Rogue

Coquille, Illinois, and Middle Rogue

*******

BLM and USFS Activities - Phase 2

The following measures, which have been identified jointly by the BLM and USFS as Phase 2 actions that can contribute to the successful implementation of the OCSRI, are being developed into detailed action plans by interdisciplinary teams.

Phase 2 Activities

BLM/USFS1 - Watershed/Habitat Restoration

The BLM and USFS will continue implementation of comprehensive watershed restoration programs on coastal systems. This includes the Jobs-in-the Woods program, roads and campground construction and reconstruction, direct fish habitat improvement, riparian area silviculture, and other management programs. Both BLM and USFS will continue to explore ways of better integrating these programs with a wide variety of other ongoing restoration efforts. A coordinated approach is necessary to ensure actions both on private and public lands are consistent with one another, and, in conjunction with protection efforts, result in a net increase of coho production capability.

BLM/USFS2 - Research

The BLM and USFS will work with local watershed councils, ODFW personnel, universities, and the Pacific Northwest Region Experimental Station staffs to improve coordination, integration, and information sharing on key research topics. This includes cooperative long-term studies for coastal watersheds, development of localized habitat capability models, and validation of priority restoration treatments.
BLM/USFS3 - Monitoring and Evaluation

The BLM and USFS will explore expanded coordination with the State and watershed councils on NFP implementation and effectiveness monitoring.

BLM/USFS4 - Inventories

Both BLM and USFS collect data that are compatible with State efforts. This combined data has been used to describe aquatic and hydrologic conditions across whole watersheds, regardless of land ownership. The BLM and USFS will continue to work with the State in filling critical information gaps to ascertain health of aquatic systems. The BLM and USFS will continue to collaborate with the State in improving consistency and accomplishing inventory on priority watersheds and critical lands. Information will be shared and used as a basis for watershed analysis and other assessments.

BLM/USFS5 - Planning and Assessment

The BLM and USFS will seek to expand opportunities for State and watershed council involvement in watershed analysis and will continue to share results of these analyses with all interested and involved parties. The BLM and USFS will also work with the State and watershed councils in testing a large scale assessment process that assesses river basin health and establishes priorities for management and restoration treatments.

BLM/USFS6 - Technical Training

The BLM and USFS will continue to coordinate technical training of resource management personnel to ensure a high level of competency is available in defining restoration and recovery treatments. This training includes modules in: stream inventory techniques, data interpretation, channel classification and fluvial dynamics, watershed restoration, monitoring and evaluation, and Proper Functioning Condition Assessment (PFC) for riparian areas.

BLM/USFS7 - Cooperative Funding

The BLM and USFS will continue to seek opportunities to cost-share resource assessments, restoration prescriptions and treatments across whole watersheds, regardless of ownership, with the State and watershed councils. Funds will be used for coordination, cooperative planning, and project development and implementation.

BLM/USFS8 - Education/Interpretation/Outreach

The BLM and USFS will work with the State and watershed councils in expanding ongoing cooperative outreach and environmental education programs. Some of these cooperative programs include Salmon Watch, Cascade Stream Watch, and National Fishing Week. Agencies
will seek development of new cooperative efforts and/or outreach programs to reach and engage all publics, especially school groups.

**BLM/USFS9 - Natural Disaster Coordination**

The BLM and USFS will continue to work cooperatively with the State and watershed councils in the assessment and prioritization of actions involving natural disturbances and disasters. This includes improved coordination and information sharing in the assessment and implementation of flood damage repair and watershed restoration, effects of wildland fire suppression and rehabilitation prescriptions, and other types of emergency actions.

**BLM/USFS10 - Interagency and Tribal Coordination**

The BLM and USFS will continue to work with other Federal, State, and County agencies and tribal governments to ensure coordination and sharing of information between the involved entities. Follow-up from previous meetings with OCSRI staff will seek to expand existing efforts and will identify additional opportunities for improved coordination. A process to monitor project-level coordination/implementation and to identify and resolve problems where found will be explored. Improved collaborative management, with the executives, through provincial meetings will help to ensure mutual priorities are accomplished.

**BLM/USFS11 - Watershed Council Support and Coordination**

The BLM and USFS will work with watershed councils to ensure a high degree of coordination for actions occurring both on public and private lands. The BLM and USFS will continue to support the councils to ensure implementation of the highest priority watershed and basin work. The BLM and USFS will continue to share technical expertise to help the councils effectively plan and implement priority watershed restoration projects.

**BLM/USFS12 - Key Aquatic Habitat Acquisition**

The BLM and USFS will continue to work within existing policies with willing sellers, to acquire key aquatic habitat. In particular, the USFS will continue to use the Pacific Northwest Streams project of the Land and Water Conservation fund to acquire these lands.
Natural Resources Conservation Service

The Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, works with private landusers to conserve natural resources. NRCS relies on many partners to help set conservation goals, work with people on the land, and provide technical and financial assistance. Its partners include conservation districts, locally-based groups such as watershed councils, state and federal agencies, agricultural and industry interests, environmental groups, and professional societies.

Conservation districts are the main NRCS delivery systems. These local government units are organized by citizens under state law and operate on the premise that local people are most familiar with their area’s needs. The districts link NRCS with their neighbors and with local conservation priorities through agreements with the Secretary of Agriculture, the Chief of NRCS, State Governors, and partners at the local level. NRCS assistance is keyed to priorities established in coordination with districts to the extent that priorities align with NRCS’s mission.

NRCS staff offer technical expertise and field-level experience to help land users solve their natural resource challenges and maintain and improve their economic viability. NRCS staff are skilled in many scientific and technical specialties, including soil science and conservation, agronomy, biology, agroecology, range conservation, forestry, engineering, geology, hydrology, cultural resources, and economics.

Much of NRCS technical assistance involves helping farmers and ranchers develop conservation measures and business actions unique to their specific lands and individual businesses. NRCS also assists rural and urban communities to reduce erosion, conserve and protect water, and solve other resource problems.

NRCS is structured in accordance with hydrologic basins. Of the eight basin teams in Oregon, three involve coastal issues: North Coast, Mid-Coast/Upper Willamette, and Southwest Coast Basins. Each basin is comprised of field offices that serve as headquarters for NRCS field staff. The field offices serving the coast are in Tillamook, Tangent, and Coquille. In addition to these NRCS field offices, SWCDs maintain offices in Astoria, Newport, and Florence.

The NRCS is authorized under Public Law 74-46, 16 U.S.C.; 590 (a-f) to plan and implement a national soil and water program, and to provide leadership in conservation, development, and productive use of the Nation's (non-federal) soil, water, and related resources; and, under Public Law 83-566, 68 Stat. 666 (16 U.S.C.; 1001 et seq.), which authorizes the Secretary of Agriculture to cooperate with State and local agencies in planning and implementing works of improvement for soil conservation and for other purposes, (in a watershed-based approach); and other laws as applicable.

Although the Endangered Species Act (ESA) does not provide NRCS with any regulatory authority, the NRCS has unique programs and connections to private landusers that provide an opportunity to assist those landusers in complying with ESA requirements.
Phase 1 Activities

The NRCS has identified 10 Phase 1 activities that support the OCSRI.

NRCS1 - Conservation Operations

Deliver technical services and programs to private landusers and Tribes, upon request, through cooperative agreements with Soil and Water Conservation Districts (SWCD). SWCDs are sub-units of State government, with elected directors who provide local leadership in resource management on non-federal lands.

Through cooperative agreements with the NRCS and Oregon Department of Agriculture at the State level, and with the Secretary of Agriculture at the national level, SWCDs provide local landusers access to NRCS technical assistance and various programs authorized under the Farm Bill. NRCS has a traditional role in providing assistance to non-federal landusers who voluntarily plan and apply appropriate conservation measures to maintain or enhance the health of their watershed. NRCS has the flexibility to extend this role to include consideration of species of concern and water quality issues.

The Field Office Technical Guide contains NRCS guidelines, criteria, and standards for planning and applying conservation treatments on a site-specific basis. The guide is localized to reflect the nature of soils, climate, and other resources within a specified geographic region.

NRCS2 - Soil Survey

At request of local state government units, develop soil surveys integrating soil resource information with local resource base and potential land uses. Soil surveys are complete for 59 percent of Oregon. With completion of soil mapping in Tillamook County, all soils of the coastal region will be mapped.

Soil surveys help people understand soils and their responses to various natural and human influences. It accomplishes this through a multi-purpose science based soil survey. Surveys contain information about the distribution and properties of soils and of factors affecting the soil environment, predictions of soil behavior in natural systems, and guidance on how to apply the accumulated knowledge of soil survey for specific questions.
NRCS3 - Snow Survey and Water Supply Forecasting

NRCS coordinates the snow survey and water supply forecasting program with the assistance of other federal and state agencies. Oregon has 98 snow courses, 34 aerial markers, and 70 SNOTEL sites. SNOTEL is a system sending information on snow water equivalent, total precipitation and ambient air temperature to a computerized center. This data is used to provide a comprehensive picture of water supply conditions for areas dependent on surface runoff, forecast streamflow, and water conditions throughout the state.

NRCS4 - Natural Resources Inventory

Conduct comprehensive inventory assessments of the use, treatment, condition and trends of natural resources on non-federal lands. The NRI provides statistically a statistically accurate overview of the condition of natural resources and use of non-federal lands in Oregon. This information helps Oregonians in the public and private sector make environmental and land-use decisions - including protecting land from erosion, slowing the rate of wetland loss, enhancing wildlife habitat, and protecting prime farmland.

NRCS5 - Plant Materials Program

Assemble, test, and release plant material to help solve natural resource problems; determines techniques for r their successful use; provides for their commercial increase and promotes the use of plant materials needed to meet objectives and priorities of the conservation program, e.g., development of species for riparian recovery, and other habitats. The program works cooperatively with individuals, NRCS field offices, conservation districts, universities, and state and federal agencies.

NRCS6 - Farm Bill Programs

Environmental Quality Incentives Program (EQIP): Establish conservation priority areas as those having significant water, soil, and related natural resource problems. Areas are established in cooperation with State and Federal agencies and with the State Technical Committees. EQIP contracts can be written for cropland, rangeland, pasture, and other agricultural land that poses a serious problem to soil, water, or related resources. To receive technical, financial, and educational assistance for implementation a conservation plan is required.

Wetland Reserve Program (WRP): Provide for USDA to solicit bids for easements from landowners to place cropped hydric soils, noncropped wetlands, riparian corridors, and critical wildlife habitat. Cost-share funds are available for restoration practices on eligible lands. The goal is to work toward a goal of no net loss of wetlands.

Wildlife Habitat Improvement Program (WHIP): Assists landowners to improve wildlife habitat on private lands through the year 2002. Provides cost-sharing to landowners for developing habitat for upland wildlife, wetland wildlife, endangered species, fisheries and other wildlife.
Provides for consulting with the State Technical Committee to set priorities for cost-share measures and habitat development projects.

NRCS7 - Resource Conservation and Development (RC&D)

RC&D is an authorized USDA program. All western Oregon counties are included in multi-county RC&D areas. NRCS helps community leaders in these areas develop rural economies by improving and conserving local natural resources.

NRCS8 - State Technical Committees

Help develop technical standards for conservation programs. The State Conservationist chairs the committee comprised of representatives of state and federal agricultural agencies, agricultural producers, nonprofit organizations with expertise in conservation, persons knowledgeable about the economic and environmental impacts of conservation techniques, and agribusiness.

NRCS9 - Hire-The-Fisher Habitat Restoration Program (Same as NOAA-NMFS1)

Under the Northwest Emergency Assistance Plan (NEAP), the "Hire the Fisher" Program has enabled Pacific states to hire fishers to collect data on salmon and complete priority habitat restoration projects to benefit coastal salmon. In Phase 1, Oregon hired 151 fishers to conduct data collection and habitat restoration projects. A total of $2.2 million was spent on habitat projects in Phase 1, and a total of $2.8 million will be spent in Phase 1 and Phase 2 for data collection in Oregon.

Cooperative arrangements with NMFS, NRCS, and the ODA are used to complete project selection and oversight. NRCS reviews grant applications in coordination with USFWS, EPA, NMFS, DEQ, ODFW and ODA. ODA provides coordination and SWCD provides local administrative oversight of the program.

NRCS10 - Cooperative River Basin and Small Watershed Program

At the request of the SWCDs and local sponsors, NRCS provides technical and financial assistance for watershed planning and implementation of projects for designated purposes such as watershed protection, water quality, fish and wildlife, flood protection, and land treatment.

The River Basin Program was used to launch two watershed-based activities on coastal streams. The Kilchis River Basin study was melded into a component of the Tillamook National Estuary Project, in coordination with other federal, state and local groups. A River Basin Study is also underway in the Illinois Valley in the Rogue Basin. This is a multi-agency, interdisciplinary effort to identify specific problems associated with conventional management and to formulate appropriate alternatives. Salmonid habitat is a specific objective.
The Cooperative River Basin Program and Small Watershed Planning programs have recently been merged as a result of changes in NRCS policy. This is intended to provide a smooth transition from a river basin report, which can serve the purpose of a watershed analysis, to a watershed plan. Watershed plans are action documents that key on resolving specific resource issues. These plans are formulated in coordination with local decision makers and stakeholders, with technical guidance from involved agencies. They qualify the problem, analyze the alternatives, and provide documentation for the selected alternatives; evaluate the economic, environmental, social, and cultural effects of the alternatives; and provide a schedule for implementation.

The primary purpose of NRCS watershed plans is to provide land users, stakeholders, and the involved agencies with the best resource data available, coupled with a clear understanding of applicable laws affecting land use. In addition, the plan serves as a guidance document, identifies benchmarks and schedules, and becomes a tremendous marketing tool for requesting outcome-based financial and technical assistance. The completed watershed plan may also be used to compete for implementation funding under Public Law 83-566, although such funds are in limited supply.

**Phase 2 Activities**

**NRCS11 - Memorandum of Understanding Among the State of Oregon, Natural Resources Conservation Service (NRCS), Fish and Wildlife Service (FWS), and National Marine Fisheries Service (NMFS).**

The MOU streamlines processes for private landusers and NRCS to comply with the Endangered Species Act (ESA) and contribute to the conservation of species of concern and their habitats. It will do so by: 1) facilitating cooperation with local Soil and Water Conservation Districts (SWCDs), Watershed Councils, Tribes, and non-federal landusers through a voluntary, watershed-based, locally driven approach to pro-actively address implementation of the ESA on non-federal lands in Oregon; and 2) streamlining coordination among signatories to facilitate ESA compliance. MOU also provides mechanism by which funds from a variety of sources may be made available for implementing appropriate management systems on non-federal lands.

Signatories to this MOU seek to support and enhance watershed planning efforts through watershed councils or similar groups that are already underway and increase the likelihood of successful initiation of a planning effort in watersheds where none has yet begun. Watershed Councils and other local groups such as Coordinated Resource Management Planning (CRMP) groups play a key role in public outreach, provide opportunities for local stakeholders to take an active role in the planning process, and leverage opportunities for funding planned conservation measures. NRCS can bring significant technical and funding resources where need is identified by local watershed planning groups and requested by SWCDs. This agreement outlines a framework for those watersheds in which NRCS is requested by SWCDs to provide assistance in the planning and implementation of watershed-based activities.
NRCS12 - Hire-the-Fisher Habitat Restoration Program

Oregon expects to hire an additional 109 fishers in Phase 2 of the Hire-the-Fisher Program, which is described in NRCS9. Program funds expire in 1998.
**U.S. Fish and Wildlife Service**

The U.S. Fish and Wildlife Service (USFWS) is located within the Department of the Interior. Its mission is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the public. Its legal mandates cover migratory birds, endangered and threatened species, certain marine mammals, anadromous fish, and the National Wildlife Refuge System. The USFWS is divided into several divisions: Ecological Services, Refuges and Wildlife, Fisheries and Federal Aid, and Law Enforcement. In Oregon, the USFWS manages 18 National Wildlife Refuges and 2 National Fish Hatcheries.

A major function of the USFWS is the identification and recovery of endangered species. With respect to salmonids, the USFWS is responsible for resident fishes (such as bull trout), while NMFS is responsible for anadromous species (such as coho salmon).

Several USFWS initiatives help provide funding for habitat restoration on private lands. These include the Jobs-in-the-Woods Program, the Partners for Wildlife Program, and the Greenspaces Program. USFWS also provides limited funds to support watershed council coordinators. The USFWS provides technical assistance for restoration planning; watershed groups; local, regional and state planning activities; and for floods such as the one in February 1996.

Contact person for additional information about the agency role or activities of the USFWS: Willa Nehlsen (503-231-6915).

**Phase 1 Activities**

The USFWS has identified 20 Phase 1 activities that support the OCSRI.

**USFWS1 - Jobs-In-The-Woods Program**

Continue as cooperating partner in the Jobs-in-the-Woods Program with U.S. Forest Service, National Marine Fisheries Service, Oregon Department of Fish and Wildlife, Oregon Department of Forestry, Governor’s Watershed Enhancement Board, Economic Development Department, Lane Council of Governments, Rogue Institute, Illinois Valley Soil and Water Conservation District, South Slough National Estuarine Research Reserve, seven Watershed Councils, two confederated tribes, and many individual private landowners. USFWS funding is used to hire displaced workers from timber-dependent communities to implement watershed enhancement projects on non-federal lands to benefit species of Federal significance and their habitats. During FY-97, funding for Jobs-in-the-Woods is expected to be between $1.0 million and $1.2 million.
USFWS2 - Habitat Conservation Plan Development

Work with non-federal applicants, under section 10(a)(1)(B) of the Endangered Species Act, to develop habitat conservation plans (HCPs) to minimize and mitigate for the impacts of land and water management activities on listed species and their ecosystems. Often, these plans also address the needs of affected non-listed species. HCPs are required for proposed non-federal actions having potential to harm or harass species that are federally listed as endangered or threatened. USFWS is currently working with the Oregon Department of Forestry to develop an HCP in the Coast Range in northwest Oregon. USFWS is also seeking to develop HCPs with private timber companies throughout Oregon.

USFWS3 - Aquatic Habitat Conservation Agreement Development and Conservation Activities

Establish Conservation Agreements with cooperating private landowners and agencies to conserve endangered, threatened, candidate, and special concern species. This voluntary process allows conservation of species and their habitats in conjunction with a proposed action by a private landowner or agency. Conservation Agreements may conserve enough of a candidate species population or habitat as to reduce or remove threats to a species and possibly preclude the need to list a species. The estimated FY-97 budget for this activity is $40,000.

USFWS4 - 1996 Technical Assistance on the Floods

Provide technical assistance in response to the 1996 Floods to Federal and state agencies in three areas: (1) site-specific damage repairs to minimize habitat and species impacts, often with nonstructural or bio-engineering designs; (2) longer-term rehabilitation efforts that emphasize measures that restore resource values of floodplains and reduce potential for future flood damage; and (3) planning efforts that address floodplain restoration at the watershed level by identifying areas where natural floodplain responses can be a part of habitat recovery.

USFWS5 - Partners for Wildlife (PFW) Program

Through the PFW Program, provide financial and technical assistance to private (primary focus) and non-federal landowners to restore and enhance wetland, riparian, instream, and associated upland habitats in partnership with local watershed councils, SWCDs, COGs, Tribes, NRCS, ODFW, OPRD, or any non-profit or governmental entity willing and fiscally able to participate. Estimated technical assistance and funding is $100,000.

USFWS6 - Greenspaces Program

The USFWS and Metro Regional Center (Metro) developed an Interagency Agreement in 1991 to jointly develop programs to restore and protect natural areas within the Portland/Vancouver metropolitan area. Demonstration projects, education and restoration challenge grants, public outreach, natural resources inventories and mapping, regional planning, and educational activities
make up a large portion of the program. Since 1991, the USFWS has continued to provide financial support and technical assistance to develop and carry out these regional efforts. The FY-97 budget for the Greenspaces Program is expected to be $300,000.

**USFWS7 - Assistance to Coastal Watershed Councils**

Provide technical assistance to local watershed councils to assist in the development of watershed assessments, regulatory requirements, identification of restoration needs, development of restoration projects, and support for watershed coordinators. Also provide funding to support watershed coordinators whenever the budget allows. The estimated FY-97 budget allocation for this activity is $70,000.

**USFWS8 - Northwest Forest Plan Implementation Assistance**

Coordinate closely with USFS and BLM staff on all aspects of planning and analysis related to the implementation of the Northwest Forest Plan (NFP). This includes assisting and advising watershed analysis teams, working on adaptive management area planning, advising and reviewing late successional reserve assessments, and providing early input on project-level planning.

The Aquatic Conservation Strategy of the NFP offers opportunities to improve water quality parameters such as water temperatures, turbidity, and sedimentation by assisting in implementation of standards and guidelines that will improve road design, road densities, and fish passage problems related to culverts and road crossings.

**USFWS9 - Biological Opinions to Prevent or Reduce Impacts to Listed Species.**

Provide consultation technical assistance to Federal agencies trying to meet their obligations under section 7(a)(2) of the Endangered Species Act. Continue to review all Federal agency actions that will have effects on listed species. Through the consultation process, the USFWS can recommend or require minor modifications to projects that reduce impacts to listed species and their habitat.

**USFWS10 - Fish and Wildlife Coordination Act Reports on Federal Projects**

Provide input under authority of the Fish and Wildlife Coordination Act into the water development programs of the Army Corps of Engineers, Bureau of Reclamation, and Natural Resources Conservation Service. The Fish and Wildlife Coordination Act report provides recommendations to ensure equal consideration of fish and wildlife resources as part of these projects.
USFWS11 - Comments and Prescriptions on Federal Energy Regulatory Commission Hydropower Projects

Provide comments and prescriptions under the Federal Power Act (FPA), in coordination with other Federal and state natural resource agencies. The USFWS objective is to reduce existing and proposed projects impacts to many natural resources, including anadromous fish.

USFWS12 - Acquisition and Restoration of Coastal Wetlands for National Wildlife Refuges (NWR)

Through USFWS realty program, identify and seek purchase of important and biologically valuable coastal wetlands. These habitats are then incorporated into the USFWS NWR system, where careful management to meet ecosystem needs is supported. Implementation of measures to restore wetland values will be beneficial for enhancing habitat for anadromous fish. For example, the Oregon Coastal Refuges is acquiring and restoring coastal wetland habitat in Siletz Bay NWR. The FY-97 budget expectations for this activity are approximately $500,000.

USFWS13 - Review of Dredge and Fill Projects

Review U.S. Army Corps of Engineers 404 permits and provide comments and recommendations under authority of the Fish and Wildlife Coordination Act. Projects include road construction and maintenance, construction of homes and businesses, navigational dredging, and gravel dredging. The USFWS objective is to reduce and mitigate the impacts of these actions on aquatic resources, water quality, and physical habitat for anadromous fish. The USFWS also recommends studies, mitigation measures, and alterations to project design or timing to reduce resource impacts.

USFWS14 - Response to Oil and Hazardous Substances Spills

Respond to spills of oil and hazardous substances in order to reduce threats to aquatic resources and protect water quality. Spill response issues are coordinated with various Federal, state, and local agencies, tribes, responsible parties, and clean-up contractors. Efforts by the USFWS and other agencies can reduce the injury to aquatic resources, including anadromous fish, by reducing the amount of material that gets into a waterway and recommending clean-up measures.

USFWS15 - Natural Resource Damage Assessment

Assess damages in dollar amounts for injury to aquatic biota and their habitats from oil and hazardous material spills, at Superfund and other contaminated sites, and for mining activities. Natural resource damage assessment activities are coordinated with our Federal, state, local, and tribal counterparts. Following receipt of damages from responsible parties, restoration actions are undertaken to restore injured resources.
USFWS16 - Technical Assistance for Planning

Provide technical assistance in state-wide, city and county planning actions to encourage use of environmentally sound methods. In providing guidance and recommendations, the USFWS considers the conservation needs of all species, including anadromous fish.

USFWS17 - Adopt-A-River and SalmonWatch Programs

Provide $10,000 annually in funding to the Oregon Adopt-A-River Program. Administered by Stop Oregon Litter and Vandalism, this program seeks to encourage and coordinate governments, businesses, states, schools, organizations, and citizens in restoration, enhancement, and protection of waterways, riparian areas, and watersheds throughout the state.

The USFWS also provides $10,000 to support SalmonWatch, an environmental education program coordinated by Oregon Trout. This program educates teachers, students, and volunteers about the importance of wild fish conservation in watershed management.

USFWS18 - Support to Ongoing Educational Programs (Outdoor School and Salmon Camp)

Provide $10,000 annually in funding and occasional staff to support Outdoor School Programs in Multnomah County ($5,000) and the Northwest Regional Educational Service District ($5,000). This program educates sixth-grade students in ecological and environmental concerns, including hands-on aquatic and salmon-related activities.

Also provide $10,000 annually to the Salmon Camp Program, an environmental education project for Native American youth coordinated by the Oregon Museum of Science and Industry. This program focuses on ecological systems and watersheds and uses the life-cycle of the salmon to teach about natural resource management.

USFWS19 - Natural Resource Education and Community Awareness of Aquatic Resources

Develop natural resource education and general information materials, e.g., student fact sheets on endangered aquatic species. Conduct teacher workshops on threatened and endangered species of Oregon, include workshops on aquatic resources and salmon issues. Regularly participate in public events, such as the Salmon Festival, to present informational materials and educational activities that promote natural resource conservation.

USFWS20 - National Estuary Program

Serve on the Science and Technical Advisory Committee for the Tillamook Bay National Estuary Project (TBNEP), and on the Science and Technical Advisory and Management committees for the Lower Columbia River Estuary Program. The priority problems for the TBNEP include fish and wildlife habitat and excessive sedimentation. Addressing these problems for the Tillamook
Bay system, identified as high priority for the OCSRI, should make a significant contribution to coho salmon recovery. USFWS has contributed $10,000 to help fund a TBNEP study of effects of oyster culture on eelgrass beds. Addressing priority problems for the Lower Columbia River, especially habitat loss and modification, also should assist anadromous and other fishes.

**Phase 2 Activities**

To date, three Phase 2 activities have been identified by the USFWS.

**USFWS21 - Avian Predator Management**

Work with ODFW to develop policy on management of avian salmonid predators. USFWS will create or serve on steering committees to oversee ongoing and proposed research, including ongoing research sponsored by BPA, the Corps and ODFW on impacts of predation by avian predators to salmon restoration and effects of predator management such as hazing. Upon completion of necessary research, USFWS will consider recommendations for avian predator management consistent with applicable treaties, statutes and regulations.

**USFWS22 - Environmental Contaminant Investigations**

Conduct investigations on the impacts of environmental contaminants on aquatic resources. Investigations address various aspects of assessment, monitoring, and research necessary to reduce impacts on resident and anadromous fish. The USFWS is seeking funds to assess the impacts of degraded water quality on anadromous fish.

**USFWS23 - Conservation Strategy for Bull Trout**

Continue working with Oregon Department of Fish and Wildlife in designing and implementing bull trout conservation plans for the Upper Willamette, Deschutes and Hood river basins. The USFWS provides funding to ODFW for support of a biologist to assess resource needs and develop a plan for protecting and restoring bull trout habitat. For Phase 2, existing conservation efforts could be expanded to include the restoration needs of anadromous salmonids.
Corps of Engineers

The Corps of Engineers (Corps) is well known for its involvement with water management and development projects. More recently, the Corps has expanded its mission to emphasize ecosystem restoration work. The extended emphasis includes efforts in improving wetland plant communities for waterfowl and other wildlife, relocating levees to increase wetland habitat, providing fish passage, and restoring riparian corridors in areas where past activities have altered habitat.

In pursuit of these restoration actions, the Corps works with local non-federal sponsors such as city, state, or local governments or districts that are capable of pursuing cost-sharing responsibilities of project development.

Programs that accomplish restoration and could contribute to the OCSRI objectives include the General Investigation Authority, the Continuing Authorities Program (CAP), the section 404 regulatory authority, and operations.

The following is a summary of the Corps programs that could contribute to the efforts presented in the coastal salmon restoration initiative:

General Investigation Authority: Projects under this authority can look at a broad and complex range of activities and have no cap on funding level. Section 206 authorizes small aquatic ecosystem restoration projects to improve the quality of the environment.

Continuing Authority Program: Projects pursued under the Continuing Authorities Program require non-Federal cost-share obligations of 25-50 percent of the total project cost.

Section 204 expands the Section 1135 program to allow for small environmental restoration projects, either at the project site or off-project site when it is found that the Corps project contributed to the degradation of the environment.

Section 205 of the 1948 Flood Control Act, as amended, provides authority to plan and construct small flood damage reduction projects that have not already, specifically been authorized by Congress. After a State or local agency requests a potential project, the Corps will conduct a feasibility study if the division commander agrees that the problem may have a Federal interest and if funds are available.

Section 107 of the Rivers and Harbor Act of 1960, as amended, is available to plan and construct navigation improvements that have not already specifically been authorized by Congress. After a State or local agency requests a potential project, the Corps conducts a feasibility study if the division commander agrees that the problem may have a Federal interest and if funds are available.

Regulatory Authority: Section 404, a federal program designed and implemented to protect aquatic resources, supports OCSRI. The program ensures a review is completed of project...
impacts before any work or filling activities occurs in the waters of the State of Oregon. Consideration of potential fishery impacts is inherent in decisions to issue permits.

The Corps initiated development of a collaborative process for addressing unresolved issues associated with regulated activities in the waters of OCSRI concern. This effort is to ensure full communication between parties and seek consensus on permit issuance or denial. Current focus is to address aggregate mining throughout the coastal basins; the initial priority is the Umpqua Basin.

For additional information about current activities involving Section 404, contact Burt Paynter at (503) 326-7146.

Operations: Various ongoing Corps projects and operations include elements designed for salmonid restoration. An example of this is the operation of the Columbia River dams.

**Phase 1 Activities**

Seven Phase 1 projects have been identified by the Corps of Engineers.

**COE1 - Larson Slough Restoration (near North Bend, Oregon)**

Remove sediment and sand from the lower 1.5 miles of Larson Slough and modify the existing tide gate to restore channel morphology and increase water volume in the lower slough. This area is degraded due to infilling from upstream sedimentation, which has reduced average water depth to one to four inches during low flow periods. As a result, the degraded water quality has negatively impacted holding and rearing habitat for juvenile salmonids.

**Status:** Preliminary Restoration Plan completed, and construction scheduled for 1998.  
**Contact Person:** Tyrae Mahan (503-326-6435)

**COE2 - Chetco River (Port of Brookings, Oregon)**

Place a culvert in the existing Corps breakwater to augment flows in the basin, reduce flushing time, and improve water quality for salmonids, northern anchovy, smelt, and other organisms inhabiting the estuary.

**Status:** Preliminary Restoration Plan submitted, and construction scheduled for 1998.  
**Contact Person:** Tyrae Mahan (503-326-6435)
COE3 - Elk Creek Lake (Tributary to Rogue River)

Redesign the partially completed Elk Creek Dam, located on a Rogue River tributary, to permit passage of coho salmon and steelhead.

**Status:** The Corps has obtained funding in FY-97 to remove part of the partially built dam.

**Contact Person:** Doug Clarke (503-326-7162)

COE4 - Participation in Pacific Northwest Forest Plan Case Study

Evaluate, plan, design, and complete restoration or demonstration projects; also develop coordinated directives for management of aquatic and terrestrial ecosystems. The case study area includes the range of the Northern Spotted Owl. The study enables the Corps to coordinate with other federal agencies to restore, sustain, and develop coordinated watershed ecosystem management strategies on all public lands.

**Status:** In third year of participation. Technical assistance and information has been provided to other agencies in support of watershed analysis, conducting ecosystem management workshops, establishing a remote sensing pilot project on forested wetlands, and preparing GIS maps and databases of known sites of critical species. Participation anticipated to continue through FY-1998.

**Contact Person:** Patricia Obradovich (503-326-5268)
National Marine Fisheries Service

The National Oceanic and Atmospheric Administration (NOAA) is located within the U.S. Department of Commerce. Its mission is to conserve and wisely manage the Nation’s coastal and marine resources.

The NOAA line office most directly involved in the OCSRI is the National Marine Fisheries Service (NMFS), which is charged with stewardship of living marine resources through conservation, management, and promotion of the health of their environment. The principal authorities under which NMFS operates are the Magnuson Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, the Fish and Wildlife Coordination Act. Under the Magnuson Act, NMFS regulates fisheries within the U.S. exclusive economic zone. Under the Endangered Species Act, NMFS is responsible for the conservation of most marine mammals and marine and certain anadromous fish species. Management and conservation plans for the resources under NMFS’ authority are developed through extensive discussions with state, tribal, and other Federal government agencies, as well as with fishers, processors, marketers, public interest groups, universities, and international science and management organizations.

The National Ocean Service (NOS), which has contributed some NOAA measures for the OCSRI, is the NOAA office charged with protection, conservation, and restoration of coastal habitats, protection of coastal waters, and for encouraging well-planned and revitalized coastal communities that provide access to coastal resources public use and enjoyment. Major authorities under which NOS operates are the Coastal Zone Management Act; the Fish and Wildlife Coordination Act; and the Marine Protection, Restoration, and Sanctuaries Act. In Oregon, NOS oversees the Oregon Coastal Management Program and the South Slough National Estuarine Research Reserve.

Phase 1 Activities

NOAA-NMFS1- Hire the Fisher Habitat Restoration Program (Same as NRCS9)

Under the Northwest Emergency Assistance Plan (NEAP), the "Hire the Fisher" Program has enabled Pacific states to hire fishers to collect data on salmon and complete priority habitat restoration projects to benefit coastal salmon. Program funds are for Phases 1 and 2. In 1995, in Phase 1, Oregon hired 151 fishers to conduct data collection and habitat restoration projects. Oregon expects to hire an additional 109 fishers in Phase 2.

A total of $2.2 million was spent on habitat projects in Phase 1, and a total of $2.8 million will be spent in Phase 1 and 2 for data collection in Oregon. Oregon will likely be able to hire more fishers before the project funds expire in 1998.
Cooperative arrangements with NMFS, NRCS, and the ODA are used to complete project selection and oversight. NMFS reviews grant applications in coordination with USFWS, EPA, NRCS, DEQ, ODFW and ODA.

**NOAA-NMFS2 - Watershed Councils**

NMFS biologists will continue working with and providing technical information to local watershed councils. In the Southwest Oregon Province, NMFS will continue working with the Rogue Valley Council of Governments on Rogue Basin restoration.

NMFS has also formed a cooperative agreement with For the Sake of the Salmon (FSOS) to provide funding for scientific, technical, and public involvement assistance to local watershed councils in support of salmon restoration efforts. FY-97 funding has been allocated as follows:

- **California/Oregon ESU ($75,000):** FSOS will contract scientific, GIS, and other technical services in support of watershed/local salmon restoration activities. $50,000 will provide for scientific and technical assistance for the shared coho ESU. $25,000 will provide support for outreach and coordination of watershed and community organizations involved in restoration efforts for the shared ESU.

- **Umpqua Cutthroat ESU ($75,000):** FSOS will provide coordination and technical assistance for restoration of Umpqua River sea run cutthroat trout; restoration will also improve habitat conditions for salmon.

- **Training Workshops ($50,000):** FSOS will support 15 technical training workshops (five each in Washington, Oregon, and California) for representatives of at least 75 local watershed councils in the three-state region.

**NOAA-NMFS3 - Habitat Conservation Plan**

The Endangered Species Act, section 10(a)(1)(b), provides state and local governments and private landowners some assurance that their activities will not be subject to changing requirements if they are issued an incidental take permit under the act. Section 10 (a)(2) of the ESA requires applicants for an incidental take permit to submit to NMFS and/or the USFWS a Habitat Conservation Plan (HCP) that specifies (1) the likely impacts from such taking; (2) the steps the applicant will take to minimize and mitigate the impacts; (3) the alternatives considered and why they were rejected; and (4) other measures that NMFS may require as necessary for purposes of the Habitat Conservation Plan.

HCPs can include conservation measures for currently unlisted species, including Federal candidate and proposed species (e.g., coho salmon).

Since the proposed listing of coho salmon on July 25, 1995, NMFS and USFWS have been and will continue to assist county and state agencies and private landowners in preparing HCPs.
associated with salmon habitats. In the process of approving a Habitat Conservation Plan and issuing an incidental take permit, NMFS ensures that each HCP adequately addresses the needs of anadromous fish.

At present, NMFS and the USFWS are working with the Oregon Department of Forestry on a multiple-species Habitat Conservation Plan for approximately 600,000 acres in the Santiam, Clatsop, and Tillamook state forests. NMFS and the USFWS are also working with a private landowner on a multiple-species Habitat Conservation Plan to cover approximately 400,000 acres of forest land in the western Cascades and eastern Coast Range.

HCP implementation will improve conditions for anadromous salmonids and give a high assurance of attaining properly functioning riparian areas within 40 to 80 years.

**NOAA-NMFS4 - Habitat Matrix**

Provide habitat matrix developed by NMFS for use in identifying the environmental baseline of watersheds and to evaluate the potential adverse effects of proposed actions. The matrix evaluates effects through the following six pathways: water quality, habitat access, habitat elements, channel condition and dynamics, flow/hydrology, and watershed conditions. The matrix summarizes recommended conditions and levels of function for these environmental parameters.

The NMFS habitat matrix is designed for use by Federal and state agencies, local governments, watershed councils, and other non-Federal parties to evaluate the potential impact of proposed actions.

NMFS will use the matrix indices to facilitate and standardize effects determinations for ESA consultations and permits. Similarly, the state and local governments may find the matrix useful in evaluating effects on salmonids of proposed actions.

**NOAA-NMFS5 - Northwest Forest Plan (NFP)**

The Northwest Forest Plan (NFP) was designed to produce predictable and sustainable levels of timber harvest and nontimber resources and to restore and maintain the ecological health of watersheds and aquatic ecosystems on lands managed by the US Forest Service (USFS) and Bureau of Land Management (BLM) within the range of the northern spotted owl. The Aquatic Conservation Strategy (ACS), a cornerstone of the Northwest Forest Plan, was designed to protect salmon and steelhead habitat. Projects proposed by USFS and BLM are evaluated against the four primary ACS components—riparian reserves, key watersheds, watershed analysis, and watershed restoration—and the nine ACS objectives. Successful implementation of these components is essential to attaining long-term goals of protection and restoration of aquatic habitats.

NMFS supports implementation of the Northwest Forest Plan at multiple levels: (1) the NMFS Regional Director serves on the Intergovernmental Advisory Committee (IAC) and the Regional...
Interagency Executive Committee (RIEC), bodies that collaboratively develop policy guidance for NFP implementation; (2) NMFS also supports the Regional Ecosystem Office (REO), a senior-level policy and technical staff group that supports the IAC and the RIEC; (3) NMFS scientific staff participate on the Research and Monitoring Committee, which develops and coordinates regional research and monitoring plans and provides science oversight for NFP implementation; (4) NMFS contributes technical staff to participate on many interagency technical work groups; and (5) NMFS staff participate on the Provincial Advisory Committees and Provincial Interagency Executive Committees (these groups--there are 5 in Oregon--coordinate NFP implementation issues at the province scale.

To ensure that Northwest Forest Plan implementation efforts are adequate to meet the requirements of the Endangered Species Act, NMFS is in the process of completing ESA section 7 consultations and conferences on the implementation of the USFS and BLM Land and Resource Management Plans, as amended by the Northwest Forest Plan. In addition to this programmatic-level consultation/conferencing, NMFS participates in the streamlined consultation process that employs biologists with local knowledge of habitat issues ("level 1 teams") to review actions and complete Endangered Species Act reviews at the project level.

NOAA-NMFS6 - Regional Ecosystem Office

The Regional Ecosystem Office (REO) provides senior-level policy and technical staff support to the IAC and the RIEC of the Northwest Forest Plan. NMFS staffs one full-time position (agency representative) in the REO and contributes an equal share ($100,000) of annual funding to the office along with seven other federal agencies.

In the process of performing analyses and developing products essential for implementing the Northwest Forest Plan, as directed by the IAC and RIEC, the Regional Ecosystem Office often convenes standing and ad hoc interagency work groups. NMFS contributes technical staff to these work groups, particularly those that address salmon habitat issues, including the Watershed Analysis Coordination Team, the Riparian Reserve Technical Team, the Fish/Hydro Data Standards Team, and the Interorganizational Resource Information Coordinating Council. Currently NMFS is participating on the Research and Monitoring Committee and the Aquatic/Riparian Effectiveness Monitoring Team.

At this time, the Regional Ecosystem Office has not been tasked by the RIEC or IAC to provide staff support on any issues directly linked to salmon conservation planning. Opportunities for such involvement do exist, however, including:

- Tailor Northwest Forest Plan implementation efforts to better achieve both NMFS and Oregon salmon conservation goals.

- Apply NFP implementation structures and fora (e.g., Province Advisory Committees) to promote coordination with state salmon conservation efforts.
NOAA-NMFS7 - Coastal Terminal Fisheries

Work with Oregon to identify Federal and private funds to build the infrastructure for coastal terminal fisheries. A NMFS/state partnership will build sustainable fisheries while providing weak stock management and protection.

Provide $50,000 in FY-97 to assist Oregon in a reconnaissance-level survey of potential terminal fishery sites in coastal waters. The survey objective is to assess locations for establishing known-stock fisheries on hatchery stocks while providing greater protection to weak, natural stocks.

Through the Mitchell Act program, NMFS continues to fund annual production of approximately 3.5 million coho salmon into Young's Bay and other lower Columbia River terminal fishery sites.

Disaster Relief funds were provided in FY-96 to support these terminal fisheries. NMFS requested FY-98 cost-share funding for additional terminal coastal fisheries.

NOAA-NMFS8 - Selective Fisheries

Selective fisheries allow sport harvest in mixed-stock waters while providing protection to wild stocks. NMFS received funding in FY 96 to support development of analytical models for selective fisheries. Congress provided $655,000 in FY-97 to fund mass-marking of coho at Columbia River hatcheries for selective fisheries.

NMFS has requested FY-98 funding to cost-share a selective fishery pilot project. However, prior to participating with Oregon in a major pilot project with coho salmon, NMFS believes that Oregon must (1) analyze the full costs of the concept relative to the potential benefits; (2) have a reasonable plan for obtaining the funds in all years of the pilot project; (3) be sure co-managers who disagree with the concept are not significantly harmed; and (4) have a high level of certainty that selective fisheries can occur with minimal harm to natural stocks.

NOAA-NMFS9 - NMFS Supplementation Process

NMFS has initiated a process with co-managers to improve understanding of hatchery policies in order to make application in particular watersheds more effective.

The results of this supplementation effort will be integrated into NMFS' Final Snake River Recovery Plan and be useful for guidance in coastal hatcheries.

NMFS has completed an ODFW Intergovernmental Personnel Assignment to be used in development of ODFW's genetic management plans for its coastal hatcheries.

NOAA-NMFS10 - Hatchery Research
NMFS' hatchery research, entitled Natures, is directly applicable to Oregon's coastal hatcheries, and is being used to improve Oregon's coastal hatchery operations. NMFS will continue to assist ODFW in the study of wild and hatchery coho interactions to improve our understanding of how to best achieve self-sustaining coho populations.

NOAA-NMFS11- Section 404/10 Actions

Conduct biological staff reviews and recommend revisions and conditions for Corps of Engineers/Division of State Lands joint 404/10 permits to alleviate adverse impacts to estuarine and wetland habitats throughout the state of Oregon.

Coordinate with USFWS, COE (Corps), EPA, and ODFW on analysis and development of a Memorandum of Understanding for state assumption of the EPA section 404 program and the COE (Corps) State Programmatic General Permit by the Division of State Lands.

Review and make recommendations for conditioning Section 404/10 permits to ease impacts to estuarine and wetland habitats which are an essential habitat component for the life cycle of anadromous fish.

NOAA-NMFS12- Highway Projects

As part of a proposed programmatic consultation with Federal Highway Administration (FHWA) on highway projects, NMFS biologists will continue to work with biologists at the Oregon Department of Transportation (ODOT) on developing impact reduction strategies. Federal agencies and the state of Oregon will continue their merger agreement of the NEPA and section 404 process for Federally funded highway projects. This agreement will expedite permitting for ODOT highway construction efforts while ensuring protection of natural resources. NMFS will continue the review of draft alternatives, environmental impact statement, and environmental assessment documents related to these projects.

NMFS' involvement in strategic planning and document review and recommendations for conditions beneficial to salmonids will reduce highway project impacts to salmonid habitats.

NOAA-NMFS13 - Hydropower Facilities

The Federal Power Act gives NMFS the authority to participate in the hydropower licensing and relicensing process directed by the Federal Energy Regulatory Commission (FERC). NMFS biological and engineering staff review activities and provide recommended prescriptions for fish passage at hydropower facilities as part of this process.

NMFS is currently reviewing the relicensing of the North Umpqua project (a system of 8 dams in the upper North Umpqua without fish passage). NMFS is working with FERC and the applicant (PacifiCorp) to ensure that fish passage and instream flows are adequately addressed in the new license.
NOAA-NMFS14 - Non-Hydropower Facilities

Under the Clean Water Act Section 404 permitting process, the COE (Corps) seeks NMFS recommendations on non-hydropower dams. NMFS is involved with state and other Federal agencies in evaluation of impacts on anadromous fishery resources at three sites at present: Elk Creek, Savage Rapids, and Milltown.

- **Elk Creek Dam**: After consideration of fish passage problems and habitat loss associated with Elk Creek Dam, NMFS has recommended removal of the project. Because Lost Creek and Applegate Dams are already being used for flood control, the removal of Elk Creek Dam will not significantly increase the risk of flooding in the Rogue River Basin. Since Rogue River coho salmon and steelhead are proposed for listing under the Endangered Species Act, NMFS will be conferencing with the Corps of Engineers to develop a plan for dam removal and a strategy for active or passive restoration.

- **Savage Rapids Dam**: NMFS offers fish passage advice and other information to the Oregon task force working on fish mortality problems associated with the Savage Rapids Dam. NMFS, USFWS, and ODFW have all made estimates of anadromous salmonid losses caused by this dam. NMFS maintains that the best economic and ecological solution to resolving fish passage problems at this Bureau of Reclamation dam is to remove the entire facility. Since improving fish ladders and screens would not eliminate fish loss, the preferred alternative in the environmental impact statement prepared by the Bureau of Reclamation in 1995 for fish passage improvements at Savage Rapids was removal of the dam and replacement with a pumping station.

- **Milltown Hill Dam**: The proposed $43 million Milltown Hill Dam (funded by Bureau of Reclamation) calls for construction of a water storage dam on the headwaters of Elk Creek, a major tributary of the mainstem Umpqua River, which supports cutthroat, steelhead, and coho. The project area would inundate 11 miles of habitat without providing fish passage. NMFS is meeting with Douglas County representatives to discuss project design and the ESA section 7 consultation process that will be required for the project.

NOAA-NMFS15 - Water Supply Projects

NMFS biologists are involved in reviewing water supply activities throughout the Oregon coast. Specific projects of focus include the North Bend-Coos Bay water supply (affecting Joe Ney Slough on Coos Bay), the Lincoln County water supply (affecting Side Creek, Rock Creek, and Devils Lake), and the Southwest Lincoln County water supply project (affecting Vingie Creek).

NMFS seeks to minimize the harmful effects on anadromous fish caused by the increasing number of water supply projects and expanding urban growth on the coast.

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NOAA-NMFS16 - Oregon Heritage Stocks Program

Oregon Trout has proposed the "Oregon Heritage Stocks" program to identify and recognize healthy native salmon and steelhead stocks. The Oregon Heritage Stocks Program would be administered by the ODFW. The five components of the program include: (1) healthy stock criteria; (2) the Oregon Wild Fish Heritage Council; (3) designation of the Oregon Heritage Stocks and Rivers; (4) technical and financial support to local watershed councils and other groups to protect healthy native stocks; and (5) five-year wild stock reviews. The program will build local awareness and support for recovery and management goals for native fish.

NMFS is providing $40,000 to Oregon Trout to support program implementation in FY-97. The funds will assist program design, promotion, and management of the Heritage Stocks Advisory Committee and the Heritage Stocks Technical Team.

NOAA-NMFS17 - National Estuary Program

NMFS is a member of the policy, technical, and science committees for the Columbia River National Estuary Program (NEP). NMFS hopes to assist the Columbia NEP with development of management plans for anadromous fish resources in the Columbia River estuary. NMFS' involvement with the NEP is important for conservation efforts since a component of salmonid life history is spent in estuarine habitats.

NOAA-NOS18 - Coastal Change Analysis Program

NOAA's Coastal Change Analysis Program (C-CAP) is managed out of NMFS' Beaufort, North Carolina lab. This satellite imagery program is designed to monitor the extent and change in location and acreage of coastal wetlands and adjacent uplands on a 1- to 5-year cycle. The imagery, aerial photos, and field data can be analyzed and integrated with other digital data in a GIS. C-CAP is a monitoring tool that NMFS or the state could use to detect coastal landscape change and the relative impact of habitat alterations on anadromous fish over relatively long periods of time.

NOAA-NOS19 - Coastal Management and Nonpoint Source Programs

Through NOAA, two programs assist Oregon in managing coastal resources:

- Oregon's Department of Land Conservation and Development receives funding through NOAA's Office of Ocean and Coastal Resource Management, under the federal Coastal Zone Management Act, to implement the Oregon Coastal Management Program (OCMP). The program is funded on a 50 percent state match level. FY-97 federal allocations will be about $1 million. This funding supports implementation of the statewide land use planning program, including the four coastal goals, within the Oregon coastal zone, and contributes to special projects. Major functions of the OCMP are local comprehensive...
plan development and implementation and review of state and Federal agency activities for consistency with the enforceable policies of the OCMP. These activities are important in identifying and balancing natural resource values with land use and development pressures and have the potential to contribute significantly to the OCSRI.

- The Coastal Zone Act Reauthorization Amendments of 1990 established the Section 6217 Coastal Nonpoint Source Pollution Control Program. State water quality and coastal management agencies jointly developed coastal nonpoint programs, with federal approval authority vested with NOAA and EPA. NOAA provided $106,000 in FY 94 and $131,000 in FY 95 under section 6217 of the Coastal Zone Amendment Reauthorization Act to support development of the Oregon Coastal Nonpoint Source Program. Oregon's program was submitted for approval in July 1995. While no funds were authorized for program implementation in FY 96 or FY 97, significant groundwork has been laid and significant coordination accomplished that will facilitate further development of program elements crucial to the OCSRI. In FY 97, NOAA and EPA will attempt to fund at least one staff position in Oregon for continued development of the state's coastal nonpoint source program.

**NOAA-NOS20 - South Slough National Estuarine Research Reserve**

South Slough National Estuarine Research Reserve (NERR) is one of a system of federally designated and supported, state-owned and managed, coastal protected areas. Goals of the NERR system include mobilizing partnerships of federal, state, and community resources, improving scientific understanding through research, and improving public understanding through education. The South Slough site includes uplands of coniferous forest and shrub draining to freshwater and saltwater tidal wetlands, and subtidal habitats. The site has ongoing educational and research activities, including monitoring, inventory, restoration and rehabilitation, and study of ecological relationships and physical and biotic functions of estuarine habitats.

Several prior and ongoing activities carried out by the South Slough NERR can contribute to the OCSRI. These include contributions to all four primary focus areas of the OCSRI: habitat restoration (including numerous restoration, mitigation, reconstruction and reforestation projects that are part of ongoing, cooperative multi-agency programs); assessment, monitoring, and research (e.g., a habitat monitoring program, research related to estuarine and anadromous fish, and coastal nonpoint source pollution abatement); leadership and institutional change (e.g., active participation in the Coos Watershed Association, Port of Coos Bay Technical Advisory Committee, and Tillamook Bay National Estuary Program); and outreach and education (e.g., publications and technical reports, school programs, and other public presentations).
NOAA-NOS21 - Charleston Coastal Service Center

The NOAA Coastal Service Center (Charleston, South Carolina) has provided funding to DLCD for an intern for 20 months. The intern will develop a pilot GIS project for the Coos Bay estuary. The system is being designed for use by local and state planners and permit reviewers. The steering committee for the project includes representatives from USFWS, COE, South Slough NERR, DLCD, DEQ, ODA, and various local planning groups.

NOAA-OAR22 - Oregon Sea Grant Program

The national Sea Grant College Program provides funds to the Oregon State Sea Grant program to fund research, education, outreach, including local extension agents and technical specialists. The Oregon Sea Grant program operates from Oregon State University.

Public education activities include the Restoration Newsletter, published quarterly, watershed fact sheets, videos (The Return of the Salmon: Restoring the Fish to Rivers and Watersheds), and books (The Northwest Salmon Crisis: A Documentary History, published by Oregon State University Press).

Oregon Sea Grant also provides funding for extension agents and technical specialists. In Oregon, the equivalent of approximately 3 full-time employees are devoted to watershed planning and management. The work of these personnel is concentrated in the South Coast, with more limited assistance in the Midcoast and North Coast regions. Their efforts focus on facilitating the development and operation of local watershed councils, developing watershed council projects, and securing project funding.

NOAA-COP23 - Pacific Northwest Coastal Ecosystem Regional Study

The Pacific Northwest Coastal Ecosystem Regional Study (PNCERS) is a joint effort of the NMFS Northwest Fisheries Science Center, the Oregon Coastal Management Program, and the Oregon and Washington Sea Grant Programs. NMFS holds one position on the program management team to provide research guidance.

NOAA's Coastal Ocean Program is providing the funding and program oversight for PNCERS. $225,000 has been awarded to the Oregon Department of Land Conservation and Development to design and coordinate PNCERS. The study is projected to receive funding of $5 million over the next five years.

PNCERS is sponsoring research that will provide the public, users of coastal resources, and management agencies with an improved understanding of how natural and anthropogenic change in coastal ecosystems affects salmon and other natural resources. Special focus will be directed to factors affecting the estuarine survival of salmon. The study will coordinate with other scientific programs in the region to maximize the use of funds, minimize duplication efforts, focus on problems or issues that are not being adequately addressed, and leverage other research funds.
The PNCERS study seeks to answer the following questions regarding salmon: (1) How are salmon stocks in the Pacific Northwest affected by oceanic and atmospheric variability? (2) How do land-use, harvest, or management practices contribute to the success or failure of salmon stocks? Results from PNCERS will be made available to the public, policy, and management decision makers in a variety of formats.
The Environmental Protection Agency has broad responsibilities to address the full range of air and water quality. The Clean Water Act (CWA) is the principal law governing pollution of the Nation's waterways. The key objective of this law is the protection and restoration of the chemical, physical and biological integrity of the Nation's waters. In the realm of aquatic resources, these include broad mandates to promote and track ecosystem protection through specific programs designed to address:

- Wetlands protection.
- Point source effluent discharge permitting (through the National Pollution Discharge Elimination System or NPDES).
- Protection of groundwater from pollution sources.
- Public water supply system protection and monitoring.
- Development and approval of State water quality criteria.
- Tracking non-source pollution factors (such as land use effects on aquatic resources, including salmon and trout).
- Co-development with the States and approval of lists of water bodies that do not meet established water quality indicators (303d list) and water resource recovery programs [referred to as total maximum daily loads (TMDLs)].
- Proper management of contaminated sediments.
- Approval of pesticides and their appropriate application.

A number of these responsibilities, and partial funding to fulfill it, is delegated to the States through its water quality management agency. The States are responsible for establishing water quality indicators, which consist of designated uses being defined (such as recreation, water supply, and cold water fish habitat) and numeric or narrative indicators. The later indicators, once developed and refined, should allow for a consistent and objective basis to judge the relative condition of aquatic resources.

Possibly the biggest challenge facing water quality management is in the nonpoint source arena, which accounts for over 50 percent of the loss in the potential capacity of the water body to support a given beneficial use such as cold water fishes and their habitats. In recognition of this fact, Congress in the 1987 amendments to the CWA established Section 319, which required states to prepare and submit to EPA a management plan and schedule for implementing best management practices (BMPs) to control polluted runoff or other factors that lead to deterioration of water resource integrity, especially those associated with land use practices.

The imperative to prevent further deterioration, termed antidegradation, by application of effective land management practices is another responsibility of the State. For those water bodies listed on the 303d list of impaired sites, the states are also in the lead for development of proactive, water resource recovery plans (called TMDLs). EPA has the responsibility to review and approve (or disapprove) of these plans. If such plans are not approved, EPA is required to develop on that the states will then implement. EPA has funded two additional positions at
Oregon Department of Environmental Quality to help address TMDL development needs in the areas associated with the OCSRI.

Contact persons for additional information about agency role or activities: Steve Ralph (206-553-4497) and Mike Rylko (206-553-4014).

**EPA1 - Alignment of Water Quality Recovery Priorities with Salmon Recovery**

Work with Department of Environmental Quality and others to identify and develop water quality recovery priorities that closely support salmon recovery efforts. Both the selection and sequencing of geographic priorities and the clustering of water quality parameters into a watershed-based approach will better support coastal salmon life history needs. The recently completed EPA Performance Partnership Agreement with Oregon will provide a sound framework to more fully integrate water quality and salmon recovery efforts.

**EPA2 - Development of Water Quality Standards That More Closely Match Salmon Life History Needs**

Work with National Marine Fisheries Service and Department of Environmental Quality to develop instream habitat guidelines for eventual inclusion in Clean Water Act water quality standards. This effort will help to ensure that the water quality standards fully protect beneficial uses, specifically including salmon life history needs. Resulting measures will provide a basis to judge both existing conditions and trends over time and the landscape.

**EPA3 - Monitoring and Evaluation of Best Management Practices**

Work with Oregon Department of Environmental Quality to track implementation and effectiveness of the current water quality standards in protecting aquatic resources and beneficial uses. Monitoring is needed specifically to support the assumption that Best Management Practices are effective in preventing incremental loss of aquatic resource integrity, such as that resulting from altered stream temperature and sedimentation regimes. EPA will work with the Oregon Department of Environmental Quality on strategies to provide the monitoring output needed to evaluate the effectiveness of the best management practices in maintaining and recovering water quality and the associated beneficial uses of Oregon's waters. EPA will also work with NMFS and USFWS to assist in designing Habitat Conservation Plan monitoring and implementation tracking strategies so that they concurrently address requirements of both the Endangered Species Act and the Clean Water Act.

**EPA4 - Technical Assistance**

Work with Federal, state, and local groups to provide greater technical assistance to the OCSRI in the following ways:
• Continue to work with local watershed groups to use multi-scale assessments for aligning and sequencing both geographic and risk-based priorities across selected coastal basins and across land ownership patterns. This approach should advance collective ability to address the large number of impaired waters in coastal Oregon. In addition, EPA will make available recently acquired remote temperature data for selected coastal sub-basins to help in understanding the distribution of water temperature problems.

• Work with other agencies and local watershed groups to provide Geographic Information Services support in the form of maps with data relevant to salmon recovery for Oregon coastal basins.

• Work with Oregon to identify programmatic and geographic areas where more effective methods and approaches are needed to control nonpoint source pollution and begin development of those methods and approaches.

• Provide experienced fisheries biologist to participate on the OCSRI’s Science Team.

• Provide two new full-time staff to work in Oregon Department of Environmental Quality to help develop technical elements of TMDL water quality recovery plans for selected coastal basins such as the Umpqua, Rogue, and Tillamook.

• Provide part-time staff to work with the Natural Resource Conservation Service, Soil and Water Conservation District staff, and/or private landowners to identify wetland restoration and nonpoint source pollution control opportunities that would support salmon life history needs over the mid-term and long term.

• Provide outreach and education assistance through the Seattle Office Outreach Unit.

• Commit Northwest Forest Plan Oregon Coastal Province representatives to facilitate involvement of the Provincial Advisory Committees to support the OCSRI more specifically. This effort will help integrate strategies for federal and private lands.

**EPA5 - Funding Assistance**

Continue to support and develop funding opportunities, including the following:

• Work with the Department of Environmental Quality and Oregon Department of Agriculture in utilizing annual EPA grant funding to better align and implement state water quality and agricultural programs to support salmon recovery priorities.
• Work with both NOAA and the state to identify and develop funding strategies for implementation of Oregon's Coastal Nonpoint Source Pollution Control Program.

• Provide support to the Tillamook Bay National Estuary Project (TBNEP). Through the TBNEP, promote both on-the-ground projects relating to salmon habitat and development of appropriate management measures to be implemented in the future.

• Work with Oregon to prepare a nomination package for designation of priority coastal areas as an EPA Regional Geographic Initiative in FY-97. Such designation would provide financial assistance beyond the traditional EPA grants to the Department of Environmental Quality and the Oregon Department of Agriculture.

• Provide approximately $333,000 of federal funding to For the Sake of the Salmon (FSOS) in FY-97 to fund local scientific, technical, and public involvement coordinators who will directly support watershed management forums working to restore the functions and productive capacity of Oregon's coastal watersheds.
Bureau of Indian Affairs

Contact person for additional information about activities of the Bureau of Indian Affairs: To be identified.

**Phase 1 Activities**

**BIA1 - Co-Manager Consultation**

Respond to requests for consultation on plans and policies that may affect tribal resources. This would include habitat protection and restoration projects, as well as development of terminal and selective fishing sites. The BIA can act as liaison between Oregon, local watershed councils, private landowners, and individual tribes regarding issues that affect tribal resources.
Background

The Bureau of Reclamation (BOR) does not have organic legislation that gives it general authority. Congress has authorized each Reclamation project under a project-specific law. Each law specifies authorized project functions (irrigation, municipal and industrial water, domestic water, flood control, hydroelectric power, recreation, fish and wildlife), sets spending caps, and may give other directions regarding the project.

Other federal legislation supplements project authorization. These laws include, but are not limited to the National Environmental Policy Act, Endangered Species Act, Fish and Wildlife Coordination, and Reclamation Reform Act. Some of these other laws clearly direct Reclamation actions. Some of these other laws may give Reclamation authority to take actions off its projects.

BOR Programs -- Phase I Activities

BOR1 -- General Investigation Program

The General Investigation Program provides for study activity. Facilities cannot be constructed from it.

Under this program BOR has:

- helped fund the Illinois River Watershed Coordinator for the past seven years by passing funding through the Rogue Valley Council of Governments.
- provided funding for the South Coast Technical Team (through fiscal year 1997) through the Rogue Valley Council of Governments. The Technical Team is preparing a habitat restoration guidance document for the Rogue and South Coast region.
- developed a hydrologic model of the Bear Creek watershed, and are working on one for the Illinois watershed. These models will help decision makers assess the consequences of proposed actions that would change water use or timing of runoff.
- funded the installation of four stream gages and a precipitation gage in the New River area to supplement data from a precipitation gage and evaporation pan BOR has near Bandon. BOR is also funding the county to maintain the gages and develop the records. Information will be used for the surface and ground water studies.

BOR is currently:

- providing technical assistance to prepare a water budget for the Illinois River in a cooperative effort with the Natural Resources Conservation Service and others.
• preparing a surface water budget for the New River area. This is a cooperative effort with the Bandon Cranberry Water Conservancy District, State, county, Bureau of Land Management, and others. The Conservancy District is contracting for a ground water study with which BOR is working to integrate its work. The purpose is to assess ground water resources for multiple purposes to include regulatory control by the Oregon Department of Water Resources, protection of natural resources, and assessment for potential water resource development.

• beginning a feasibility study of water conservation opportunities in the Bear Creek drainage. The purpose of these studies is to improve streamflows in Bear Creek, improve water quality in Bear Creek, and improve the reliability of irrigation water supplies.

• providing technical assistance to Douglas County for updating the county’s Umpqua River Basin Water Management Program.

BOR2 — Water Management and Conservation Program

The Water Management and Conservation Program is part of the Operation and Maintenance appropriation. This program allows BOR to provide both technical and financial assistance to BOR projects for preparing water conservation plans and implementing conservation actions. The Talent, Medford, and Rogue River Valley Irrigation Districts are eligible for assistance under this program.

Under this program BOR is:

• providing funds to purchase water measuring devices at diversions from coastal streams. Bear Creek is a basin where we have installed a number of measuring devices.

• able to provide technical assistance to irrigation districts on federal projects to prepare water conservation plans. This is required by federal law for nearly all of these districts. Those plans will meet state criteria.

BOR3 — Endangered Species Implementation Program

The Endangered Species Implementation Program is part of the Construction appropriation. BOR can construct facilities on its projects and do certain other actions such as design and some investigative work. This program is intended to help BOR deal with the effects of listings of species on federal Reclamation projects.

Specifically, BOR has:

• helped design an off-channel rearing pond for coho salmon along the Illinois River. This was a project identified by the Illinois River Watershed Council.
BOR4 -- General Investigation Program

- BOR has proposed to initiate a program in fiscal year 1999 that would provide funding for watershed council coordinators in other basins.
- BOR has requested funding to place a full-time watershed engineer in southern Oregon to assist in the design of alternatives to push-up dams and other watershed restoration measures. BOR is seeking partners for this position from the Bureau of Land Management, the U.S. Forest Service, and the U.S. Fish and Wildlife Service. This position would need to be cost-shared with state or local entities. Watershed councils will provide guidance for this person, and their work will be integrated with federal and state agencies.

BOR5 -- Water Management and Conservation Program

- BOR has requested federal funding to implement a water quality survey of drainage from the federal project in Bear Creek. This should help to identify the quality of water leaving the federal project, and how that water affects Bear Creek.
- BOR is working with state agencies on fish kill remediation what would result in permanent habitat improvement.

BOR is proposing to provide some financial assistance to irrigation districts on the federal project to implement water conservation measures. Such measures should result in improved stream flows or improved water quality or both. This program will likely be fairly small in terms of available funding.
Bonneville Power Administration

Contact person for additional information about activities of the Bonneville Power Administration: To be identified.

Phase 1 Activities

BPA1- Access to Computer and GIS Data Bases

Provide state and private parties with access to the Bonneville-funded Computer Information System (CIS) and Geographic Information System (GIS) resources. Access to the CIS and the GIS resources will be through the Pacific States Marine Fisheries Commission based in Portland.
Federal Highway Administration

Contact person for additional information about activities of the Federal Highway Administration: Elton Chang (503-399-5749).

Phase 1 Activities

FHWA1- Culvert Repair and Modification

Work with Oregon Department of Transportation (ODOT) according to their mutual agreement regarding the repair, replacement, and modification of culverts that restrict fish passage. Allocate funds directly to ODOT for culvert repair or replacement, and these funds can only be applied to roads qualifying for Federal funds. Culvert repair or replacement will greatly improve upstream and downstream fish passage on streams supporting coastal salmonids.
III. Long-Term Commitments of Federal Agencies to OCSRI

Federal agencies will play a significant role in the successful implementation of the OCSRI. The federal family role is presently defined by ongoing actions implemented as part of existing agency missions. Increased participation will enhance overall effectiveness of the plan, but will require agency executives to define and commit to specific actions that affect each agencies' priorities.

This commitment will be demonstrated through meetings of the Pacific Salmon Coordinating Committee (PSCC) to discuss and agree upon broad program areas on which to focus future specific actions. Details of each program area will be defined by staff assigned to work with the OCSRI. An initial meeting of the PSCC to launch this federal component is planned for March 1997. Staff members will meet regularly after that meeting to coordinate and refine details of each agency's proposed actions so that a comprehensive, coordinated approach to OCSRI implementation is maintained.

To date, several federal agencies have pledged technical staff support to the OCSRI. The following key federal agency contacts will facilitate federal involvement by scoping for specific plan actions and bringing federal representation to the implementation, outreach, and monitoring components of the OCSRI. The individuals will continue work with the State on development of a broader initiative addressing recovery of steelhead and other aquatic-dependent species across Oregon, Washington, and northern California.

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<thead>
<tr>
<th>Agency</th>
<th>Key Staff</th>
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<tbody>
<tr>
<td>National Marine Fisheries Service</td>
<td>Garth Griffin</td>
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<td>Bureau of Land Management</td>
<td>Mike Crouse and Karl Stein</td>
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<td>U.S. Forest Service</td>
<td>Dave Heller</td>
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<td>U.S. Fish and Wildlife Service</td>
<td>Willa Nehlsen</td>
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<td>U.S. Environmental Protection Agency</td>
<td>Steve Ralph/Mike Rylko</td>
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<td>U.S. Army Corps of Engineers</td>
<td>Rosy Mazaika</td>
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<td>Natural Resources Conservation Service</td>
<td>Bill White</td>
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<td>Bureau of Indian Affairs</td>
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<td>Bureau of Reclamation</td>
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The following 12 programs have been identified as a suggested starting point for identifying specific Phase 2 actions that relate directly to the OCSRI. These programs could serve as a template for all federal agencies as a continuing reflection of commitments to the public to conserve and restore aquatic ecosystems on federal land.

- Watershed/Habitat Restoration
- Research
- Monitoring and Evaluation
- Inventories

OCSRI Conservation Plan
March 10, 1997

Federal Agency Workplans
If all agencies become more proactive partners in improving and implementing the OCSRI, there may not be a need to list the coho salmon. However, should listing occur, the work done now may allow continued uses of public and private lands.

**Other Needed Federal Funds**

In addition to the Phase II activities identified in the agencies’ workplans, the following federal funding needs will be pursued through Congress.

**Predation**

There needs to be more information and appropriate action to manage predator impact on salmon survival. The U.S. Fish and Wildlife Service proposes to work on avian predator management as a Phase II activity.

Marine mammal predation needs similar attention. NMFS will work with Oregon and other states to address the issue of growing pinniped populations and their potential effects on depressed salmonid stocks in the Northwest. Currently, Oregon is working with California and Washington, as well as NMFS, to identify areas with potentially significant impacts of pinniped predation on salmonids. NMFS has expressed a concern about potential effects of growing pinniped populations on depressed salmon populations in the Pacific Northwest. In specific areas, pinniped predation could be hindering the rebuilding of salmon populations. Additional research is necessary to determine the extent of actual impacts on salmonid populations. Where predation is determined to be a significant problem, management actions consistent with ESA can be taken to reduce salmon mortality. NMFS will seek funding to assess pinniped interactions with salmon populations at critical sites and initiate appropriate management actions to minimize predation where assessments indicate such action is needed.

**Stream Gaging**

Forty new recording gaging stations are needed on critical streams as identified by the Science Team. Federal funding is being pursued to support installation and data collection and interpretation. This data would be used by agencies in their work with watershed councils to
improve streamflow protection, water supply, conservation and water management strategies for times of the year that are critical to salmon survival.

U. S. Geological Survey appears to be the appropriate federal agency to fund this need at a level of $1.3 million ($720,000 to fund installation of 40 stations; $580,000 funds data collection and interpretation for watershed council and agency use).
Chapter 17E
Strategies and Actions Designed to Provide an Increased level of Risk Reduction to Core Areas

"Core areas" are stream reaches (including their connected sub-basins) or watersheds within individual coastal basins that currently support relatively high densities of spawning and/or rearing. Therefore, they are of critical importance to the persistence of salmon populations that inhabit the basin. These reaches, or basins have been provisionally identified on maps to provide information that can help agencies, watershed councils, soil and water conservation districts, and landowners prioritize efforts to conserve and restore habitats that support salmon.

Core area maps have been developed for all of the larger coastal basins, noting core areas for coho, chinook, chum, and steelhead. These maps represent an effort to build on previous attempts to identify areas that are especially important to salmonid production and the maps are expected to evolve as new and better information becomes available. A description of the mapping process and a schedule for revising the provisional maps are included in Chapter 15.

Maps of provisionally identified core areas are being distributed to watershed councils, soil and water conservation districts, agencies, and interested landowners. These maps provide a basis for beginning to prioritize conservation and restoration efforts, but do not dictate assignment of priority for action or investment of funds.

Core areas will be used or applied through several strategies:

- The government agencies and grassroots organizations will be asked to consider and use the core area knowledge to design effective programs that will support and sustain the life history needs of each species within the core area. Watershed councils will be explicitly requested to explain how they used the maps of provisional core areas in the development of their watershed plans.

- Core areas will be considered when assigning priorities (for development, funding and/or implementation) with regard to protection, restoration and assessment activities. While core areas will be considered, this process does not imply that conservation and restoration efforts will be limited to core areas or that funding for projects will be limited to core areas.

- Providing connectivity among core areas will be considered when assigning priorities with regard to protection, restoration and assessment activities. Under measure ODFW-IV.B.1, ODFW will apply this strategy by prioritizing restoration actions in physical proximity to core areas to assure project proximity to core areas to foster more rapid expansion into restored habitat and provide connectivity. ODFW biologists and other agencies working with watershed councils and the various initiatives will utilize this strategy whenever possible.
Core areas will be considered first when assigning priorities for watershed analysis or assessment, monitoring actions, and limiting factors determination. Data collection within a subset of core areas, particularly with regard to aquatic habitat surveys and juvenile population surveys, will be more intensive and comprehensive (see Chapter 16).

In addition to these strategies, a number of significant agency actions/measures have been either prioritized toward or specifically directed at habitat within core areas. Two key issues have been raised about physical habitat protection within core areas: riparian protection and road-sediment risks. These two issues have been specifically addressed through core area measures on forest lands.

Riparian protection and road-sediment risk on forest land are regulated through the Oregon Forest Practices Act and related administrative rules. The rules establish a desired future condition for riparian vegetation. For most fish-bearing streams, the desired future condition is to grow and maintain stands similar to “mature forest conditions” within riparian management areas of specified widths. These various widths represent approximately 70 to 95 percent of the potential source area for large woody debris recruitment, respectively. For non-fish-bearing streams, the desired future condition is to grow and retain vegetation sufficient to support the functions and processes that are important to downstream waters, which have fish, maintain the quality of domestic water, and supplement wildlife habitat across the landscape.

The prescriptions described in the rules have been designed to meet the desired future conditions on average across the landscape. However, the prescriptions are based upon some assumptions about stand condition and growth and may not ideally address all site conditions. Monitoring is in place to evaluate the adequacy of the prescriptions and the assumptions upon which they were developed. On OFIC member industrial lands in core areas and state forest lands through western Oregon, a higher level of assurance of meeting the desired future condition on a site-specific basis in the most timely manner will be provided through several voluntary measures that retain additional conifer within riparian areas along both fish-bearing and non-fish-bearing streams.

Forest roads represent a high risk for increased sediment delivery to streams. For roads and other activities that may be sediment sources, the forest practice rules include state-of-the-art practices that, when implemented, minimize sediment source and delivery. However, many roads built prior to current practices retain higher risks for sediment delivery than would be the case if the roads had been constructed under the current standards of design. The OCSRI Plan addresses the legacy of risk posed by forest roads through an aggressive program to identify and correct potential risk related to cut- and fill-slope failure, road surface drainage, stream crossings and fish passage. It is expected that approximately $130 million will be spent by industrial and state forest lands over the next ten years to address the legacy road issue. Emphasis of this effort will be given to roads within core area watersheds.

Measures related to core area protection are described briefly below. These measures are described in more detail in the agency workplans in Chapter 17C.
**Actions/Measures Specific to Core Areas**

**ODF 8:** *Riparian hardwood conversions*: Hardwood conversions allowed under the FPA will require an additional review process before implementation within core areas.

**ODF 19:** *Additional conifer retention along fish-bearing streams in core areas*: OFIC members have voluntarily agreed to harvest no more than 25 percent of the conifer that are in excess of the standard basal area target in those situations when the actual stocking in the RMA exceeds the standard target. (Note: this will also be done on state forest land, but is not exclusive to core areas.)

**ODF 20:** *Limited RMA for small type N streams in core areas*: OFIC members will establish limited RMAs of 20 feet for small type N streams for the purpose of retaining snags and downed wood.

**ODF 22:** *25 percent in-unit leave tree placement and additional voluntary retention*: This is a voluntary measure to retain up to 100 percent of the in-unit trees along Type N or F streams. OFIC members will voluntarily change the ratio of 50 percent conifer and 50 percent hardwood, to 75 percent conifer and 25 percent hardwood when requested on a site-specific basis.

**Priority Given to Implementation within Core Areas**

**DSL:** Will review scattered tracts of State Land Board lands to evaluate their coho habitat potential with priority to parcels within core areas.

**ODF 1:** *Road erosion and risk project*: Industrial forest landowners have agreed to implement a voluntary program to identify risks from roads and to address those risks.

**ODF 2:** *State forest lands road erosion and risk project*: State forest landowners have agreed to implement a voluntary program on state-owned lands to identify risks from roads and to address those risks.

**ODFW-1.B.2 and ODF 4:** *Stream habitat assessments*: For the last three years, industrial forest landowners and state forest lands have contracted with ODFW to complete stream habitat surveys following ODFW protocol.