Surface Runoff from Forest Lands (Draft, September 26, 2011)

The Challenge

Approximately 60-65% of the Puget Sound basin is forested land. A significant amount of this area is being actively managed for timber production. Improperly managed runoff from forestry, particularly forest roads, has the potential to deliver excess sediment to streams. Forest harvesting also can affect the hydrology of a watershed, with the potential to adversely affect streams through physical disturbances (e.g., crossings, delivery of water from road ditches, and capturing of retention seeps and springs on cut banks), equipment use within stream corridors, and placement of slash or other debris in streams.

In Washington State, Forest Practices are regulated by means of the Forest Practices Act, established by the legislature, and by the rules established by the Washington Forest Practices Board (the Board). The current rules were adopted in July 2001, informed by the Forest and Fish Report, the result a multi-stakeholder effort to improve forest practices and the protection of aquatic and riparian habitat and water quality on forestlands.

The Forest Practices Habitat Conservation Plan (FPHCP) asserts that the rules and the program are a means of meeting the requirements of the ESA, as well as state and Federal Clean Water Act (CWA) requirements, for species included in the plan. Through the FPHCP and Clean Water Act Assurances, the State of Washington seeks to provide long-term conservation of covered species, support an economically viable timber industry and create regulatory stability for landowners.

Relationship to Recovery Targets

[Placeholder for relationship to recovery targets]

C9. Surface Runoff from Forest Lands

C9.1 Demonstrate achievement of water quality standards through implementation of the Forest and Fish Report on state and privately owned working forests.

In 1999 the Forest and Fish Report included Clean Water Act assurances granted by Ecology based on collection of data demonstrating that water quality standards would be achieved. In 2009 Ecology found there was insufficient data and information to substantiate the assurance that water quality standards were being achieved in working forests. At the same time, Ecology also found that the Forest and Fish program continues to offer a viable and compelling management strategy for achieving water quality

goals. Ecology extended the water quality assurances, conditioned on achievement of twenty-one program milestones, with some scheduled to be completed by as late as 2019. These include:

- Support rules and funding to implement the Forest and Fish Report
- Support an adaptive management program to update rules and guidance
- Consistent compliance and enforcement of Forest Practices Rules
- Bring roads up to design and maintenance standards
- Research program accomplishments testing the effectiveness of the forestry rules in protection of water quality.

Recent Progress

As of August 2011, ten of the twenty one milestones have been completed. DNR, Ecology, and the Forests and Fish cooperators continue to make progress on completing key milestones towards maintaining Clean Water Act Assurances.

One of the main constraints to accomplishing the milestones on schedule is personnel capacity and funding limitations at DNR and other agencies and partners in the implementation of the Forest and Fish Report. The Forest Practices Program has experienced decreased funding in the last two biennial budgets, with an overall decrease of $4 million in FY '09-'11 and an additional $2 million in FY '11-'13 from state general funds. This represents a decrease of approximately 28% in state general fund appropriations, and has impacted DNR's ability to support the Adaptive Management Program (AMP), compliance monitoring, and enforcement of the Forest Practices rules. Compounding the decreased state funding, federal funding from the Pacific Coastal Salmon Recovery grants terminated as of 2011.

Federal funding through the Pacific Coastal Salmon Recovery Fund supported a substantial portion of the Forest Practices AMP between 2000 and 2011. Ranging between $2.4 and almost $5 million a biennium, and spanning a period of ten years, this funding is no longer being provided by the federal government. These funds supported the development of tools to aid implementation of the Forests and Fish Report, and in the last six years, went almost entirely to support AMP research and monitoring. This loss of funding has created a serious challenge for the Forest Practices program to meet AMP obligations. While those funding losses have been offset somewhat by the creation of the Forests and Fish Support Account by the Washington State Legislature, to support tribal and non-governmental participation in the implementation of the Forests and Fish Report, this minimally supports program costs associated with the AMP

Performance Objectives for Ongoing Programs

DNR is working to complete the remaining 11 milestones on schedule in order to maintain Clean Water Act Assurances from Ecology. Among those remaining, a few have been a particular challenge for DNR and its cooperators to complete due to funding and staffing resource limitations. These include obtaining an independent review of the AMP, training and certification of staff and cooperators, assessing the condition of small forest landowner roads, and completing the Cooperative Monitoring, Evaluation and Research (CMER) research that drives the science-based adaptive management process. In the coming years, DNR and the Forest and Fish Cooperators will continue to work towards these milestones. The operational and procedural milestones have completion due dates by 2013, while a schedule of CMER research studies stretches out through 2019.

Near Term Actions

C9.1 NTA 1: **Stabilize and diversify funding for the Forest Practices AMP, training and certification, compliance monitoring, and enforcement.**

Performance measures: Not identified

C9.1 NTA 2: **Obtain an independent performance review of the Forest Practices AMP to include an evaluation of the structure and function of the program, based on its performance, efficiency and accountability.**

Performance measures: Not identified

C9.2 Complete road maintenance and abandonment plans on public and privately held working forests.

Forest Practices Rules include road maintenance and abandonment provisions to prevent sediment and hydrology-related impacts to public resources such as fish and fish habitat. The rules require large forest landowners to develop and implement a Road Maintenance and Abandonment Plan (RMAP) for roads within their ownership. Large forest landowners were required by July 1, 2006, to have all roads within their ownership covered under a DNR-approved RMAP (WAC 222-24-051) and to bring all roads into compliance with forest practices standards by October 1, 2016 (or with approved extension by 2021). This includes all roads that were constructed or used for forest practices after 1974. An inventory and assessment of orphaned roads (i.e., forest roads and railroad grades not used for forest practices since 1974) also must be included in the RMAP.

In an effort to minimize the economic hardship on small forest landowners (also known as family forest landowners), the 2003 Washington Legislature passed a Road Maintenance and Abandonment Plan bill (HB1095) that modified the definition of "small forest landowner" and clarified how the road requirements applied to small forest landowners. Small forest landowners have the option to submit a "checklist" RMAP with each forest practices application or notification, rather than to provide a plan for their entire ownership. The RMAP checklist is a brief assessment of certain characteristics on roads currently being used for forest practice activities only, and does not provide a complete inventory of the landowner's roads.

To assist small forest landowners in achieving road maintenance requirements, the legislature created the Family Forest Fish Passage Program (FFFPP) in 2003. FFFPP is a cost-share program that provides 75-to-100 percent of the cost of correcting fish barriers. The program is managed by three Washington State Agencies (Department of Natural Resources, Department of Fish and Wildlife, and the Recreation and Conservation Office).

Recent Progress

State and private forest landowners have made a significant capital commitment to protecting public resources and listed species through the RMAP requirement, as detailed in the 2010 HCP Annual Report. As of December 2009, approximately 16,195 miles have been improved out of 22,900 miles identified as needing improvement, a 71% accomplishment rate. Since 2001, 126 large landowners have submitted

RMAPs and over 8,800 RMAP checklists have been submitted by small forest landowners. Between 2001 and 2009, over 3,100 fish passage barriers were removed or replaced, which is about 56% of known fish barriers identified in RMAPs. As a result, over 1,500 miles of fish habitat were opened in streams on forestlands.

The FFFPP program has been successful at completing, as of 2010, 232 projects and opening up 499 miles of stream habitat previously inaccessible to fish. Over that same time period, the state of Washington has invested more than $17 million in the program. In 2010, of 56 eligible sites for FFFPP funding, 36 were funded at a total cost of $2.5 million. Once completed, the 2010 funded sites will open a total of 54 miles of fish habitat.

Performance Objectives for Ongoing Programs

Large landowners must bring all roads into compliance with forest practices standards by October 31, 2016 (or with approved extension by 2021)

DNR will continue to assure that all small forest landowner roads are brought up to forest practices standards as part of forest practices application process. In addition, Forest Practices will continue to track RMAPs and checklist RMAPs submitted by small landowners, reporting progress in its annual published HCP report. DNR will report to the legislature in December 2013 on the progress of checklist RMAP implementation.

The FFFPP program has 428 qualified landowner-proposed repair projects that are not funded. Several hundred more barriers are known to exist on these smaller forest ownerships, in addition to those already waiting for funding. Every year 50-to-100 new landowners enroll in the program. The major factor limiting progress is funding. More than 30 local community conservation organizations around the state provide project oversight and accountability, and work with the small forestland owners to insure projects are installed according to plan. Minimal state agencies staff provide the program structure, accounting, coordination and consistency. In terms of stream habitat opened up per dollar spent, FFFPP has proven to be one of the soundest investments in salmon recovery being made in Washington State.

For the 2011 construction season, 39 barriers are planned for correction, opening up 62 miles of habitat at a cost of approximately $3.2 million. Due to reduced funding levels from $5 million in FY 2009-2011 to $2 million in FY 2011-2013 biennium, only 9 projects are planned to be completed in the 2012 construction season.

Near Term Actions

C9.2 NTA 1: **Clear the current backlog of Family Forest Fish Passage Program projects within the Puget Sound Basin. As of September 2011, there are 148 projects that would open about 90 miles of habitat at an estimated cost of $15 million.**

Performance measure: Not identified

C9.2 NTA 2: **Complete a resource risk assessment of small forest landowner roads for the delivery of sediment to waters of the state and begin restoration on small forestlands in key watersheds in the Puget Sound Basin. Watersheds could be prioritized based on Ecology sediment gauging station data or Watershed Characterization analysis to identify the three highest priority**

watersheds for restoration based on SFL road systems. Conduct physical road condition risk assessments and fish passage barrier inventories for selected watersheds, focusing on high-risk, willing landowners.

Performance measure: Not identified

C9.2 NTA 3: **Maintain adequate financial support for the Family Forest Fish Passage Program based on the resource risk assessment and prioritization. This should build on strong existing partnerships with federal agencies such as USDA Natural Resource Conservation Service, US Fish & Wildlife Service, NOAA Fisheries, EPA, and Bonneville Power Administration, as well as outreach to private sector and nonprofit sector funding sources.**

Performance measure: Not identified

C9.3 Ensure federal forest managers implement the same substantive requirements for maintenance and abandonment of forest road systems as are required for state and privately owned forests under the Washington Forest Practices rules.

The Federal northwest forest plan has been in place since the mid 1990s and has dramatically lowered rates of timber harvest on federal lands within the range of the northern spotted owl. This has resulted in less timber revenue to support maintenance of federal forest roads. In 2000, the U.S. Forest Service Region 6 and the Washington Department of Ecology signed a Memorandum of Agreement in which the Forest Service agreed to develop road maintenance and abandonment plans for all federal forest roads within five years (2005) and fully implement those plans within 15 years (by 2015). Yet, continued reductions in federal funding has created an estimated $300 million shortfall in the funds needed to upgrade roads to current standards, repair fish passage barriers, and decommission roads no longer needed or supportable.

In November 2010, as part of implementation guidance on national regulations for Travel Management Planning the Deputy Chief for the US Forest System set a target for each National Forest to complete plans that would "right size" the federal forest road system by 2015. Each unit of the National Forest System (NFS) is to: (1) identify the minimum road system needed for travel and the protection, management and use of NFS lands, and (2) identify roads that are no longer needed to meet forest management objectives, and therefore scheduled for decommissioning. The Forest Service expects to identify an appropriately sized and environmentally sustainable road system that is responsive to ecological, economic, and social concerns, which will include water quality effects from forest runoff. Forest Service staff is expected to engage the public in the process, involving a broad spectrum of interested and effected citizens, other state and federal agencies, and tribal governments.

Recent Progress

According to the FY 2010 Legacy Roads and Trails Accomplishment Report, $7.3 million was spent on Washington's federal forest roads and trails. With this funding, 42 miles of roads were decommissioned, and 788 miles of road storm proofing and maintenance were conducted. In addition, five fish passage barriers were restored, opening a total of 12.2 miles of fish habitat. This is the greatest commitment of legacy roads and trails funding for the Pacific Northwest Region in more than a decade. Unfortunately, this level of effort is insufficient to address the backlog of NFS roads system repairs.

Given that more than 80 percent of the current NFS roads system was built before 1980, and there are over 90,000 miles of forest roads just in the Pacific Northwest region, it seems unlikely this restoration effort will meet its commitment with the State of Washington to implement all necessary road maintenance and abandonment by 2015. It was estimated in the 2000 MOA that Congress (at that time) allocated less than 20 percent of the funding necessary for the USFS to adequately maintain their roads. More recent estimates in 2005 suggest a $300 million backlog of work on forest roads in Washington alone. With 2010 marking the greatest commitment of funding in a decade, it appears that Congress will have to substantially increase funding in order to ensure road systems on federal lands do not contribute to poor water quality for salmon and people in the Puget Sound Basin.

The effort to appropriately size the NFS road network has begun, with nine of seventeen National Forests in the Pacific Northwest Region having begun the process of conducting a "Travel Analysis" to identify an appropriate road system.

Performance Objectives for Ongoing Programs

When US Forest Service received $20 million of 2010 funding for the Legacy Roads and Trails program in the Pacific Northwest region, they planned three years of projects, assuming maintenance of that budget. In fiscal year 2011, however, that budget was reduced to $8.5 million. The fiscal year 2012 budget is uncertain, but unlikely to result in greater program funding given federal budget shortfalls. In short, a significantly more modest restoration effort can be expected in Washington in 2011 and 2012.

All NFS units in the region are preparing plans for completion of the travel analysis by 2015. They will each identify a road network that can be reasonably maintained under current budget constraints, given management objectives, and responsive to ecological, economic and social concerns. In addition, each unit has been asked to identify capital budget needed to bring that appropriately sized road network up to a level that can be maintained under the current budget. This will include road maintenance and abandonment needs, and fish passage issues needing correction. This capital budget needs assessment will provide an updated estimate of the true backlog of road maintenance needs on federal forestlands.

Near Term Actions

C9.3 NTA 1: **Secure executive-level participation from U.S. Forest Service in annual RMAP coordination meetings with landowners, WDFW, Ecology, affected tribes, NOAA-Fisheries, USFWS, affected counties, watershed councils and other interested parties within each watershed (per WAC 222-24-051(9)). Participants will discuss opportunities to provide a coordinated approach within each watershed resource inventory area by (1) prioritizing road maintenance and abandonment planning and (2) exchanging information on road maintenance and stream restoration projects.**

Performance measure: Not identified

C9.3 NTA 2: **Pursue increased funding to the US Forest Service for the repair of failing legacy roads on federal forestlands in collaboration with the Washington Watershed Restoration Initiative and Washington's congressional delegation.**

Performance measures: Not identified