Forest Practices Habitat Conservation Plan

July 1, 2014- June 30, 2015

Annual Report

Washington State Department of Natural Resources
Forest Practices Program, Forest Practices Division
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On behalf of Washington State, this report was prepared by the Washington State Department of Natural Resources, Peter Goldmark, Commissioner of Public Lands.
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Successful implementation of the Forest Practices Habitat Conservation Plan involves the efforts of all of our partners in resource protection.
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Executive Summary

In 2006, Washington State completed the Forest Practices Habitat Conservation Plan (Forest Practices HCP) (DNR 2005) with the goal of obtaining Incidental Take Permits from the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA Fisheries) (collectively, "the Services"). The Forest Practices HCP addressed the habitat needs of all covered aquatic species, including certain fish species that are federally designated as "threatened" or "endangered". The Forest Practices HCP is a programmatic HCP that reflects the State's forest practices program and is the basis for federal permits to the State for implementing the State's forest practices program. The Services accepted the Forest Practices HCP and issued Incidental Take Permits to Washington State under the authority of the Endangered Species Act. The Forest Practices HCP protects aquatic and riparian-dependent species on more than 9 million acres of state and private forestlands.

As a part of the Forest Practices HCP implementing agreement, the State submits to the Services an annual report describing implementation activities. This year's annual report covers the period from July 1, 2014, to June 30, 2015.

July 2014 – June 2015 Activities and Accomplishments

Family Forest Fish Passage Program

The Family Forest Fish Passage Program completed the removal of 52 fish passage barrier projects opening 108 miles of upstream fish habitat. Since the beginning of the program in 2003, 393 barriers to fish passage have been removed, opening up approximately 903 miles of fish habitat.

Road Maintenance and Abandonment Plans

- Since 2001, 24,282 miles of forest road have been improved to meet state forest practices standards and 5,730 fish passage barriers – about 76% of those identified – have been eliminated, opening up 3,419 miles of fish habitat.
- During the reporting period, WDFW biologists reviewed 1,399 Forest Practices Hydraulic Projects (FPHPs), which included 252 concurrence-required project reviews (some of the 144 FPAs requiring WDFW concurrence had multiple hydraulic projects) and 1,147 standard FPHPs (30-day review only).

Forest Practices Hydraulic Projects (FPHP) –

- In 2013, the Forest Practices Board (Board) adopted rules in accordance with Second Engrossed Substitute Senate Bill 6406, Chapter 1, Laws of 2012. The rules require all hydraulic projects associated with forest practices activities to be conducted as forest practices hydraulic projects (FPHP) under an approved Forest Practices Application (FPA). The legislation directed the Board to adopt rules granting Washington State Department of Natural Resources (DNR) jurisdictional authority of FPHPs through the integration of the fish protection standards found in the Washington Department of Fish

and Wildlife (WDFW) hydraulic code rules, chapter 220-110 WAC, into the forest practices rules. The legislative purpose for this change in state agency jurisdiction was to simplify government application processes for the citizens of Washington State.

- To ensure full implementation of the FPHP rules, the forest practices program developed and implemented statewide FPHP training during this 2015 reporting period. The three day training module was delivered to forest practices program staff in three different locations. The training included one day of classroom presentations and two days of field exercises to practice reviewing and evaluating various hydraulic projects. Essentially all forest practices staff attended the training.

Unstable slopes

- To ensure the DNR has the required information to classify a Forest Practices Application in an assumed potentially unstable slopes area, the Board adopted an unstable slopes rule which affirms DNR's ability to establish the form and content of a Forest Practices Application.

- DNR Staff, per Board direction, implemented a two-phase approach to amend Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms.* The first phase of the amendments was completed and approved in November 2014. The goal is to have the second phase of the amendments completed and available for approval by the Board at its November 2015 meeting. The first phase added guidance and methods to assist Qualified Experts in the identification of groundwater recharge areas associated with glacial deep-seated landslides. The second phase will reorder the presentation of guidance to assist landowners, practitioners and Qualified Experts to determine if unstable slopes or landforms exist in or around proposed forest practices activities; and will add additional guidance and methods to help practitioners and Qualified Experts estimate runout distances of potentially shallow rapid unstable slopes and landforms.

Adaptive Management Program

The Forest Practices Adaptive Management Program completed two research projects and one draft report. The Cooperative Monitoring, Evaluation, and Research Committee (CMER) initiated the Eastside Type N Riparian Effectiveness project.

Compliance Monitoring Program

DNR's Compliance Monitoring Program published the 2014 interim report in August 2015. No conclusions are drawn from this report because it covers only the first year of the two year data collection cycle. See chapter 9 – Compliance Monitoring Program for more information.

Forest Practices Applications

The forest practices program processed 4,876 new Forest Practices Applications in FY2015. Also that year, 15,234 previously approved applications were in active harvest status receiving

on-the-ground compliance checks, continuing a trend of processing and enforcing an increasing number of applications.

1. Introduction to Forest Practices Habitat Conservation Plan 2015 Annual Report

1.1 Introduction

In 2006, Washington State submitted the Forest Practices Habitat Conservation Plan (Forest Practices HCP) with the goal of obtaining Incidental Take Permits from the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA Fisheries) (collectively, the Services). Implementation of the Forest Practices HCP protects public resources including aquatic and riparian-dependent species. The Forest Practices HCP covers more than 9 million acres of non-federal and non-tribal forestlands. This multi-stakeholder effort addressed the habitat needs of all covered aquatic species, including certain fish species that are federally designated as 'threatened' or 'endangered'. In 2006, the Services accepted Washington's Forest Practices HCP and under the authority of the Endangered Species Act, the Services issued Incidental Take Permits to Washington State. The implementation of the Forest Practices HCP is a partnership between the Services and Washington State.

Three state agencies—the Washington State Department of Natural Resources (DNR), the Washington Department of Fish and Wildlife (WDFW), and the Washington Department of Ecology (Ecology)—work together to ensure implementation of the Forest Practices HCP. DNR provides the majority of staff positions that oversee implementation of this HCP due to the authority given the department in the Forest Practices Act (chapter 76.09 Revised Code of Washington (RCW)) and Rules (Title 222 Washington Administrative Code (WAC)). However, both WDFW and Ecology through Interagency Agreements 16-44 and 16-149 respectively, have dedicated office and field staff time to support the various functions of the Forest Practices Program and the implementation of the Forest Practices HCP. Their support includes participation in the following:

- The Adaptive Management Program (AMP)
- The Compliance Monitoring Program (CMP)
- The Family Forest Fish Passage Program (FFFPP)
- The review of Road Maintenance and Abandonment Plans (RMAPs)
- Consultation on Forest Practices Hydraulic Project Approvals (FPHPs)
- The development of chapters in the Forest Practices Board Manual (Board Manual)
- The evaluation of water type change proposals
- The review of Forest Practices Applications
- Interdisciplinary Teams

Under the Forest Practices HCP, the state has a commitment to submit an annual report to the Services describing the implementation activities. This year's annual report covers the period from July 1, 2014, to June 30, 2015. The report describes the efforts of the state Department of Natural Resources' Forest Practices Program, and its partners to implement the Forest Practices HCP.

1.2 2015 Report Highlights

Highlights of the Forest Practices HCP implementation from July 1, 2014, through June 30, 2015 include:

Forest Practices Board

- The Board affirmed DNR's ability to establish the form and content of the FPA through the adoption of rule amendments regarding unstable slopes information on FPAs. A new subsection (9) was added to WAC 222-20-010. It informs prospective applicants that DNR may require additional information, including geologic information prepared by a qualified expert, when reviewing FPAs proposing harvest or construction where potentially unstable slopes or landforms exist in or around the area of the proposed forest practices activity.
- The Board approved revisions to Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*. This fulfilled the Board's direction to amend guidance specific to the identification and delineation of groundwater recharge areas associated with glacial deep-seated landslides.

Adaptive Management Program

- The Forest Practices Adaptive Management Program completed 2 research projects and 1 draft report.
    - Research project - Effectiveness of Riparian Management Zones in Providing Habitat for Wildlife
    - Research project - Effects of Forest Roads and Tree Removal In or Near Wetlands of Pacific Northwest
    - Report - Eastside Forest Hydrology Study
- CMER initiated the Eastside Type N Riparian Effectiveness project.

Forest Practices Operations

- The Forest Practices Program developed several guidance documents for forest practices staff including guidance on requesting additional information for adequate review of potentially unstable features; guidance on reviewing alternate plans; and the development of the FPHP Compliance Field Guide to assist the field staff when reviewing and complying hydraulic projects.

Small Forest Landowner Office

- Twenty-five new applications were received under the Forest Riparian Easement Program (FREP) and 16 conservation easements were acquired. As of June 30, 2015, the backlog of unfunded, eligible FREP applications is 127.
- The Family Forest Fish Passage Program completed the removal of 52 fish passage barrier projects opening 108 miles of upstream fish habitat. Since the beginning of the program in 2003, 393 barriers to fish passage have been removed, opening up approximately 903 miles of fish habitat.

- In 2015, DNR developed and implemented a statewide outreach project to gain more knowledge of small forest landowner road conditions and potential for their roads to meet the Forest Practices Rules.

20-acre Exempt Riparian Forestland

- Forest Practices Applications utilizing the small forest landowner 20-acre exempt rule (non-conversion FPAs) along fish-bearing water comprised about 1.6 percent of all approved applications submitted during the 2014-2015 reporting period.
- Of the 846 Watershed Administrative Units (WAUs) in the state, 193 have possible reduction in the potential recruitment of large woody debris (LWD) resulting from the cumulative total of non- conversion FPAs utilizing the 20-acre exempt rule. Of these, all but three, have the potential of less than one percent cumulative reduction in function as measured by potential recruitable LWD.
- There were no Forest Practices Applications associated with 20-acre exempt parcels in the bull trout areas of concern.

Enforcement

- There was a total of 15,234 active (non-expired) Forest Practices applications during the reporting period. During this time, DNR issued 106 Notices to Comply and 39 Stop Work Orders. Of these enforcement actions, 102 were for violations of the Forest Practices Rules.
- There were six civil penalties that became a Final Order (all appeal processes have concluded) during the reporting period and no Notices of Intent to Disapprove.

Compliance Monitoring

- The *2014 Interim Forest Practices Compliance Monitoring Report* was published in July 2015 and is available on DNR's website or via the link in chapter 9. No conclusions are drawn from this report because it covers only the first year of the two year data collection cycle.

Training, Information, Education

- A new training curriculum was developed to build on the initial Forest Practices Hydraulic Project (FPHP) overview training. The new training focused predominantly on compliance of FPHP projects and was provided to DNR Region field and office staff. The training covered required elements for a complete FPA, office review of design plans, field review of design plans, and field compliance of an installation or removal project. A field guide was developed and provided to the participants.

- Two Unstable Slopes trainings were provided for Forest Practices Program staff, landowners, agency stakeholders, and consultants.

- Two Wetland Identification trainings were provided for Forest Practices Program staff, landowners, agency stakeholders and consultants.

- DNR forest practices and Department of Ecology staff in partnership with the Department of Health's Office of Drinking Water and University of Washington School of Public Health participated in a one-day training session in December 2014. The training included presentations addressing the protection of streams and other water bodies within the forested watershed.

Road Maintenance and Abandonment Planning (RMAP) for Large Forest Landowners

- Since 2001, 24,282 miles of forest road have been improved to meet state forest practices standards and 5,730 fish passage barriers – about 76% of those identified – have been eliminated, opening up 3,419 miles of fish habitat.
- During the reporting period, WDFW biologists reviewed 1,399 Forest Practices Hydraulic Projects (FPHPs), which included 252 concurrence-required project reviews (some of the 144 FPAs requiring WDFW concurrence had multiple hydraulic projects) and 1,147 standard FPHPs (30-day review only).

Tribal Relations

- During this reporting period there were 36 Forest Practices Applications requiring a landowner/Tribe meeting and all 36 fulfilled the meeting requirement.

Washington State Legislature

- Each year, DNR monitors legislative action for laws that could impact the Forest Practices Program. During the 2015 Legislative session, no new laws were passed that would result in a change in protection of habitat for the species covered in the Forest Practices HCP. One bill, Senate Bill 5088 (geologic hazards assessment), was passed that has a positive effect on the Forest Practices Program. It establishes an efficient and cost-effective process for acquiring and analyzing LiDAR data to be made publically available by amending Geological Survey RCW 43.92.025. When the LiDAR becomes available it will provide better data for unstable slopes review for forest practices applications. Senate Bill 5088 resulted in 7 new positions in the DNR geology program.

Information Technology

- 4,876 FPAs were received or renewed and entered into Forest Practices Application Review System (FPARS). Currently there are 1,194 reviewers receiving email notification.
- The Forest Practices Division and the Information Technology Division replaced the Forest Practices Risk Assessment Tool (FPRAT) with the Forest Practices Risk Assessment Mapping (FPRAM) application. This new interactive mapping and reporting tool gives DNR Forest Practices Program staff (division and region) access to review GIS data related to the implementation of the Forest Practices Rules.
- Staff entered approximately 6,000 updates into the Hydrography data set based on 720 Water Type Modification Forms. As of June 2015, the Water Type Modification Forms backlog was 365.

2. Forest Practices Board

2.1 Introduction

The Forest Practices Board's (Board) activities during the July 2014 - June 2015 reporting period are explained in this section. They include:

- Adoption of rules regarding geologic information on Forest Practices Applications (FPAs); and
- Approval of changes to the Forest Practices Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*.

2.2 Forest Practices Board Overview

The Board sets the public resource protection standards that are the basis for the Forest Practices Program. The state's Forest Practices Act established the Board's authority in 1974 as an independent state agency responsible for the adoption of rules for forest practices on non-federal and non-tribal forestlands. The legislature directed the Forest Practices Board to protect public resources while maintaining a viable forest products industry. "Public resources" are defined as water, fish and wildlife, and capital improvements of the state or its political subdivisions.

The Forest Practices Board consists of 13 members: the Commissioner of Public Lands or the Commissioner's designee; four additional state agency directors or their designees; and eight members appointed by the governor. The represented agencies are the state departments of Natural Resources, Commerce, Ecology, Agriculture, and Fish and Wildlife. The governor-appointed members include a member representing a timber products union, a forest landowner who actively manages his or her land, an independent logging contractor, an elected county commissioner or council member, and four general public members whose affiliations are not specified in the Forest Practices Act. The membership of the Board as of June 30, 2015, was:

- Stephen Bernath, Commissioner of Public Lands Designee, Chair
- Heather Ballash, Department of Commerce
- Tom Laurie, Department of Ecology
- Patrick Capper, Department of Agriculture
- Joe Stohr, Department of Fish and Wildlife
- Dave Somers, Snohomish County Commissioner
- Bill Little, timber products union representative
- Bob Guenther, general public member and small forest landowner
- Carmen Smith, general public member and independent logging contractor
- Paula Swedeen, general public member
- Court Stanley, general public member
- David Herrera, general public member
- Brent Davies, general public member

In addition to adopting rules, the Board provides guidance through the Forest Practices Board Manual (Board Manual), an advisory technical supplement to the rules. The Board Manual guides field practitioners and DNR regulatory staff when implementing certain rule provisions. The forest practices rules and Board Manual are used collectively for implementing protection measures for public resources related to forest lands.

The Board also directs and approves funding for the implementation of the Adaptive Management Program. This program is intended to provide science-based recommendations and technical information to assist the Board in determining if and when it is necessary or advisable to adjust rules and guidance in order to achieve established goals and objectives. The Board empowers four entities to participate in the Adaptive Management Program:

- Cooperative Monitoring, Evaluation and Research Committee (CMER)
- Timber/Fish/Wildlife Policy Committee (TFW Policy Committee)
- Adaptive Management Program Administrator
- Independent Scientific Review Process

CMER is the research component of the program. CMER is comprised of scientists from forest landowners, environmentalists, state agencies, county governments, federal agencies, and/or tribal governments. The Board approves voting CMER members.

The TFW Policy Committee considers scientific findings from CMER and makes recommendations to the Board related to Forest Practices Board Rule amendments and guidance changes. The committee consists of one caucus principal, or their designee, from environmental interests, industrial private timber landowners, nonindustrial private timber landowners, western Washington tribal governments, eastern Washington tribal governments, county governments, DNR, state departments of Fish and Wildlife, and Ecology, and federal agencies.

The Adaptive Management Program Administrator is a full-time employee of DNR and is responsible for overseeing the program, supporting CMER and reporting to the TFW Policy Committee and the Board.

The Independent Scientific Review Process involves independent peer review of some CMER work to ensure that it is scientifically sound and technically reliable. The Scientific Review Process may also review non-CMER work, however it does not do so frequently.

2.3 Forest Practices Board Rule Making Activity (July 1, 2014 – June 30, 2015)

Geologic Information on Forest Practices Applications

On February 10, 2015, the Board adopted rule amendments regarding unstable slopes information in FPAs. These amendments are in WAC 222-20-010 *Application and Notification* and WAC 222-10-030 *State Environmental Policy Act Guidelines.* The changes are as follows:

- Added a new subsection (9) to WAC 222-20-010. It informs prospective applicants that DNR may require additional information, including geologic information prepared by a qualified expert, when reviewing FPAs proposing harvest or construction where potentially unstable slopes or landforms exist in or around the area of the FPA.
- Added a reference to the new subsection in WAC 222-10-030(5).
- Made minor corrections in WAC 222-20-010.

See section 2.6 Unstable Slopes and Landforms for more information.

2.4 Forest Practices Board Manual

The Board Manual is an advisory technical supplement to the forest practices rules. It provides technical background and guidance for DNR staff, forest landowners, and cooperating agencies and organizations when they implement certain rules. WAC 222-12-090 directs DNR to prepare revisions to the Board Manual in cooperation with the state Departments of Fish and Wildlife, Agriculture, Ecology and other agencies, affected tribes, and interested parties with appropriate expertise.

Board Manual revisions typically begin with a working group that identifies key elements to be addressed, followed by drafting language with DNR in the lead. For sections that provide guidance for rules protecting aquatic resources, a final draft is presented to the TFW Policy Committee for review and approval, after which the Board considers the final approval. At times it may be necessary for DNR to present a final product to the Board that represents agreement by a majority of the TFW Policy Committee, rather than by consensus. In these cases, DNR staff informs the Board of the lack of consensus and provides a briefing on the outstanding issues prior to the Board taking action.

Forest Practices Board Manual Activity (July 1, 2014 – June 30, 2015)

On November 12, 2014, the Board approved revisions to Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*. This fulfilled the Board's May 13, 2014, direction to amend guidance specific to the identification and delineation of groundwater recharge areas associated with glacial deep-seated landslides.

See section 2.6 Unstable Slopes and Landforms for more information.

2.5 Anticipated Forest Practices Board Direction

Anticipated Rule Making Activity

Forest Road Maintenance

In 2014, the Board considered adding rule language authorizing landowners to schedule road maintenance according to a site's relative potential for public resource damage. This would apply to roads with completed road work under existing road maintenance and abandonment plans (RMAPs), or roads that were never covered under an RMAP. In November 2014, the Board postponed this rule making project because it was necessary to complete certain other high-priority projects in the near term. The Board may resume this work in 2016.

Riparian Management Zones (RMZs)
The Board may consider riparian management zone rules to:

- Clarify outer zone leave tree clumping and dispersal options; and
- Clarify methods and processes of collecting stand data for determining stand requirements to meet desired future conditions.

State Environmental Policy Act Requirements for Landscape Management Plans
The Board may determine a rule revision in WAC 222-16-080(6) is necessary to clarify whether State Environmental Policy Act (SEPA) analysis is required for state-approved landscape management plans for threatened and endangered species conservation.

Anticipated Board Manual Revision Activity
Board Manual Section 7 *Guidelines for Riparian Management Zones (RMZ)*
Along with the above-mentioned RMZ rule making activity, guidance may be needed on clumping and dispersing outer zone leave trees, collecting and evaluating stand information, and marking RMZ boundaries and outer zone leave trees so they are easily identified and retained.

Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*
In fulfillment of the Board's November 12, 2014, direction, DNR assembled a stakeholder group to develop guidance for estimating runout distances of potentially unstable slopes and landforms. To date, the group has made good progress on this guidance, as well as editing the existing Board Manual section to make the guidance more user-friendly. November 2015 is the target date for completing the guidance.
See section 2.6 Unstable Slopes and Landforms for more information.

Board Manual Section 23 *Guidelines for Field Protocol to Locate Mapped Divisions between Stream Types and Perennial Stream Identification*
DNR will complete this new section of the Board Manual after the Board receives and approves a recommendation from the TFW Policy Committee on a wet season method to locate the uppermost point of perennial flow in Type N Waters.

Adaptive Management Program Priorities
The Adaptive Management Program's work in several subject areas could result in recommendations to the Board during the 2015-2016 reporting period:

- Defining a wet season default method for locating the uppermost point of perennial flow in Type N Waters;
- Determining how to locate the Type F/Np Water break (water typing);
- Establishing an unstable slopes research strategy, including glacial deep-seated landslides and groundwater recharge areas (see section 2.6 Unstable Slopes and Landforms for more information); and

- Developing a small forest landowner alternate plan template in Board Manual Section 21 *Guidelines for Alternate Plans* for harvest in riparian management zones.

2.6 Unstable Slopes and Landforms

As noted above, there have been changes to the Forest Practices Rules and amendments to Board Manual guidance related to unstable slopes and landforms. In addition, unstable slopes rules and their implementation processes have been an ongoing focus for the TFW Policy Committee, CMER, DNR, and the Board.

Rule Making Related to Unstable Slopes

In February 2015, the FPB adopted rule amendments regarding unstable slopes information in FPAs. These amendments are in WAC 222-20-010 *Application and Notification - Policy* and WAC 222-10-030 *State Environmental Policy Act policies for potentially unstable slopes and landforms*. The changes are as follows:

A new subsection (9) was added to WAC 222-20-010 (see language below). It informs prospective applicants that DNR may require specific geologic information, including information prepared by a qualified expert. This applies to FPAs that include proposals where potentially unstable slopes or landforms are on or around the area of an FPA. A qualified expert means a person licensed under chapter 18.220 RCW as either an engineering geologist or as a hydrogeologist with at least three years of field experience in the evaluation of relevant problems in forested lands.

WAC 222-20-010 (9) new section: Where potentially unstable slopes or landforms are in or around the area of an application, the department may require the landowner to provide additional information in order to classify the application appropriately. If necessary, the department may require additional geologic information prepared by a qualified expert. The department may request that the qualified expert explain the methods the qualified expert used to evaluate the proposed harvest or construction activities with respect to the potentially unstable slopes or landforms. Nothing in this subsection is intended to require a geotechnical report if the geologic information provided is sufficient to appropriately classify the application.

(a) "Qualified expert" is defined in WAC 222-10-030.

(b) "Potentially unstable slopes or landforms" are those listed in WAC 222-16-050(1)(d)(i)(A) through (E).

Amendments to Board Manual 16 – *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*.

In November 2014 the Board approved revisions to Board Manual Section 16 *Guidelines for Evaluating Potentially Unstable Slopes and Landforms*. This fulfilled the Board's May 2014 direction to amend guidance specific to the identification and delineation of groundwater recharge areas associated with glacial deep-seated landslides. This was done in consultation with qualified experts with expertise in ground water recharge on glacial deep-seated landslides.

Substantial amendments include:

- Clearly stating in the Introduction that the Board Manual is the technical advisory supplement to the forest practices rules,
- Emphasizing that the provided in-depth analysis tools and methodologies are recommended steps, and will depend on the specific situation,
- Assisting users in identifying landforms, and determining when a further assessment may be needed,
- Identifying what to include in the geotechnical report, if one is required.

The amended manual provides improved technical guidance to:

- Accurately identify unstable landforms and assess the influence an activity may have on a landform,
- Identify pathways for successful office review during the remote sensing and data gathering phase and during field assessments for identifying features on the ground,
- Provide users with the information needed when planning forest practice activities so public resources are protected and threats to public safety avoided.

Anticipated Amendments to Board Manual 16

The Board further directed staff to work on amendments to the Board Manual for improving runout and delivery guidance. In fulfillment of the Board's November 2014 direction, DNR assembled a stakeholder group from TFW Policy Committee representatives. To date, the group has made good progress on this guidance, as well as editing the existing Board Manual section to make the guidance more user-friendly. This cooperative effort has resulted in amendments that include information on:

- Landslides associated with rule-identified landforms;
- Factors contributing to debris flow runout; and
- Debris fan development and the inclusion of selected methods professionals can use when conducting delivery assessments.

The information for delivery guidance focuses on shallow rapid landslides, as these are by far the most common landslide type and predicative runout models have been developed by the scientific community. Guidance for deep-seated landslide runout is not discussed because the complexity of movement and triggering mechanisms don't allow for simple predictive models.

November 2015 is the target date for completing the guidance.

TFW Policy Committee Recommendations/CMER Priorities

Efforts included:

- The TFW Policy Committee provided recommendations to the Board based on results from the Mass Wasting Effectiveness Monitoring Project. Policy recognized DNR's ongoing effort of process improvement related to the review of forest practices

applications with respect to landslide potential. Policy supported DNR's recommendation to develop a documentation form for landowners to complete for all FPAs involving potentially unstable slopes or landforms.

- The TFW Policy Committee formed a technical committee to evaluate gaps in the science and information regarding glacial deep-seated landslides and ground water recharge areas and to assist the progress of the Board Manual group amending Board Manual 16.
- The TFW Policy Committee worked to complete prioritizing and scheduling projects on the CMER Master Project Schedule, with an emphasis on projects related to unstable slopes – the new schedule was presented to and approved by the Board.
- The Uplands Processes Scientific Advisory Group, an arm of CMER, is working to complete a review of the unstable slopes research strategy, including deep-seated landslides and groundwater recharge areas.
- An Adaptive Management Program effort called *The Unstable Slopes Criteria Project* will evaluate the degree to which the landforms described in the unstable slopes rules identify potentially unstable areas with a high probability of impacting public resources. The study will test the accuracy and lack of bias of the criteria for identifying unstable landforms in predicting areas with a high risk of instability.

3. Adaptive Management Program

3.1 Introduction

This chapter provides a brief background on the Forest Practices Adaptive Management Program (AMP) and accomplishments to date. In large part, those accomplishments occur through the Cooperative Monitoring, Evaluation and Research Committee (CMER) projects. The CMER Work Plan presents an integrated strategy for conducting research and monitoring to provide scientific information to support the Adaptive Management Program. Section 3.6 lists websites that give detailed information on the work plan and projects.

Section 3.7 contains information on electro-fishing activities associated with Adaptive Management Program projects. The Services specifically requested this information through the conditions that govern the Incidental Take Permits.

3.2 Adaptive Management Program

In response to water quality and aquatic endangered species issues, the Washington State Forest Practices Board adopted emergency water typing rules in 1996 and salmonid emergency rules in 1998. In addition, in 1997 the governor formed a Joint Natural Resources Cabinet and charged it with creating a salmon recovery plan for Washington State by June of 1998. A "Salmon Recovery Strategy" developed by the state called for the protection of salmon habitat through forest, agriculture and urban modules.

The Joint Natural Resources Cabinet turned to the Timber, Fish, and Wildlife (TFW) organization to develop recommendations for the forestry module. The module would result in a set of recommendations to the Forest Practices Board and the Governor's Salmon Recovery Office to respond to fish listings and water quality problems in Washington State covering about 9.3 million acres of private and state-owned forestland. This module later became the 1999 *Forests and Fish Report*.

The authors of the *Forests and Fish Report* agreed to use all reasonable efforts to support the expeditious implementation of the recommendations contained in it. The authors' commitments, however, were subject to the:

- Washington State Legislature's adoption of a statutory package providing for implementation of the report prior to July 1, 1999;
- Forest Practices Board's adoption of permanent rules implementing the recommendations of the report;
- Provision of adequate funding for the implementation of the recommendations contained in the *Forests and Fish Report*;
- Receipt of federal assurances relating to the Endangered Species Act and the Clean Water Act; and

- Continued support from the authors for the completion of the tasks and implementation of the provisions specified in the report.

The *Forests and Fish Report* recommended an Adaptive Management Program to address the effectiveness of the forest practices prescriptions in meeting resource objectives, the validity of the resource objectives for achieving the overall goals, and basic scientific uncertainties in the ecological interactions among managed forests, in-stream functions, and fish habitat. The 1999 Washington Legislature referenced the 1999 *Forests and Fish Report* in the Salmon Recovery Bill (Engrossed Substitute House Bill 2091), in which it directed the Forest Practices Board to adopt rules that were consistent with the recommendations of the report. Following that direction, the Forest Practices Board adopted the Adaptive Management Program, a formal science-based program.

The purpose of the Forest Practices Adaptive Management Program is to provide science-based recommendations and technical information to assist the Forest Practices Board in determining if and when it is necessary or advisable to adjust forest practices rules and guidance for protecting aquatic resources. The program was created to ensure that programmatic changes will occur as needed to protect resources; to ensure that there is predictability and stability in the process; and to ensure that there are quality controls applied to scientific study designs, project execution and the interpreted results.

From 2000 to 2011, more than $25 million in federal funding through the Pacific Coastal Salmon Recovery Fund was spent to help implement the 1999 Forests and Fish Report. This included funding for development of an Adaptive Management Program, a multi-landowner Forest Practices Habitat Conservation Plan (Forest Practices HCP), and information systems. Funds were primarily used to design and implement research and monitoring projects, workshops, and science conferences.

A significant outcome of the federal funding was the focusing of the Forest Practices Adaptive Management Program on aquatic resources on state and private forestlands in Washington State. The Adaptive Management Program is governed by an official state rule making body (the Forest Practices Board), and includes a policy committee and a science committee. The unique model of collaborative decision-making used in developing the program was as significant as the program itself. In addition, an independent scientific peer review process was established to ensure the rigor and integrity of the adaptive management research and monitoring projects and reports.

Another significant outcome of the federal funding was the early emphasis on developing ‘rule tools’—projects designed to develop, refine or validate tools (e.g., models, methods and protocols) used to implement the Forest Practices Rules that support the 1999 *Forests and Fish Report*. These projects have helped define, test, or refine protocols, models, and guides that allow the identification and location of rule-specified management features, such as the Last Fish/Habitat Model (a method for evaluating streams for typing), landslide screens, or the

achievement of specified stand conditions, such as the 'desired future riparian condition' basal area target. Target verification projects were designed to confirm riparian function performance targets developed during Forests and Fish Report negotiations that authors identified as having a weak scientific foundation, such as the desired future condition basal area targets for Type F streams.

A report titled *Monitoring Design for the Forestry Module* of the Governor's Salmon Recovery Plan, July 2002, was commissioned by the TFW Policy Committee to "develop a comprehensive framework for collection, analysis and interpretation of data related to effectiveness monitoring" for rules derived from the 1999 *Forests and Fish Report*. The report is a conceptual framework for a coordinated monitoring plan with examples of how specific types of monitoring could be conducted and how an effective monitoring program could be structured.
Development of the 1999 *Forests and Fish Report* and subsequent Washington State laws and Forest Practices Rules were based on the best available science at the time. Both the report and the rules were developed in a collaborative, transparent process, with many stakeholders involved. Another outcome of providing funding for establishment and support for the Forest Practices Adaptive Management Program is the continued participation by many stakeholders, including tribes and tribal organizations, state agencies, landowner groups, counties, and the conservation caucus. The collaborative process continues to be used in the Adaptive Management Program to review and suggest revisions to Forest Practices Rules and guidance on state and private forest lands based on findings from research and monitoring and other information.

The Forest Practices Adaptive Management Program research and monitoring efforts that were funded have led to revisions in the Washington State Forest Practices Rules, to guidance in the Board Manual, and in guidance for small forest landowners. For example, in past years, the rules containing the target threshold for the riparian Desired Future Condition basal area have been revised; and a small landowner fixed-width buffer template has been developed in cooperation with small landowner representatives and added to the Forest Practices Board Manual.

3.3 Cooperative Monitoring, Evaluation and Research Committee History

The Cooperative Monitoring Evaluation and Research Committee (CMER) represents the science component of the Adaptive Management Program and oversees research and monitoring. The CMER Work Plan describes the various research and monitoring programs, associated projects and work schedule. Schedule L-1 from the *Forests and Fish Report* (U.S. Fish and Wildlife Service, 1999) was revised, Board-approved, and Schedule L-1 (2001) was incorporated into the HCP to serve as the structure of the adaptive management program, and to specifically guide the development of projects described in the 2015 CMER Work Plan.

It is likely that research and monitoring priorities will change over time as adaptive management proceeds, new information becomes available, and improvements are made to forest practices based on these scientific findings. It's at the discretion of the Board that changes to resource objectives, performance targets and research and monitoring priorities are reviewed and agreed

to by the TFW Policy Committee. At the project level some reprioritization took place in 2010 to answer questions related to Clean Water Act (CWA) assurances and again in 2014 with the completion of the Settlement Agreement and a Master Schedule. These processes essentially prioritized projects when the TFW Policy Committee agreed on a schedule and a long-term budget.

While the first few years of the Adaptive Management Program focused on rule tools, in the last few years, the program has focused much of its effort on effectiveness monitoring. The effort to more-fully integrate research and monitoring across spatial and temporal scales is ongoing in Fiscal Year (FY) 2015 (July 1, 2014, to June 30, 2015). See Section 3.4 which discusses CMERs' activities.

3.4 CMER Work Plan and Activities

The 2015 CMER Work Plan contains more than 90 projects. Approximately 38 projects have been completed and multiple projects are ongoing (i.e., undergoing study design development, or being implemented or reviewed). The CMER Work Plan is updated biennially.

The projects in the work plan originally were prioritized based on the level of scientific uncertainty and resource risk as related to the priorities of Schedule L-1 in the *Forests and Fish Report* (U.S. Fish and Wildlife Service, et.al., 1999) and incorporated into the Forest Practices HCP (Washington DNR, 2005). CMER projects address the needs of higher priority subjects first to ensure that the most important questions about resource protection are answered before the questions with lower scientific uncertainty or lower resource risk. Projects were re-prioritized in 2010 to focus on CWA assurances; re-prioritized in the Master Schedule proposed in the 2012 HCP settlement agreement; and again in bringing the settlement before the TFW Policy Committee for adoption in the 2014 CMER Work Plan. The work plan is a dynamic document that is revised biennially in response to research findings, changes in the Forest Practices Board and the TFW Policy Committee objectives, and available funding.

In FY15, Policy approved the Master Project Schedule (MPS) for projects identified in the Adaptive Management Program. The goal of this MPS is to have a planning document that will help the AMP forecast when projects would be implemented, sequence projects for efficiencies, and keep the budget within projected revenue. In addition, development of the MPS provides the AMP with a tool to evaluate its progress which meets requirements of the 2012 settlement agreement.

CMER takes on many other ad hoc projects in addition to their normal course of business.

Two projects were completed, approved by CMER, considered for action by the Policy Committee, and delivered to the Forest Practices Board in FY 2015. The projects were:

- Effectiveness of Riparian Management Zones in Providing Habitat for Wildlife: Resampling at the 10-year Post-treatment Interval, re-analysis of bird data.

In this study, scientists revisited study sites (10-year post-harvest) to examine longer-term effects on bird community of riparian buffer arrangements. Using the Before-After-Control-Impact (BACI) experimental approach and temporally replicated point counts, they estimated population-and community-level avian responses while incorporating variation in the detection process across treatments and years. This project was based on RMZ rules that pre-dated the current Forest and Fish RMZ rules.

- Effects of Forest Roads and Tree Removal In or Near Wetlands of the Pacific Northwest: A Literature Synthesis.

  In the context of wetlands, the report addresses existing information on the physical, chemical, and biological effects of a host of forest practices. These effects may be the direct or indirect result of tree removal (i.e., logging, timber harvest), roads and other infrastructure created in support of logging operations, or use of silvicultural chemicals. This report addresses not only the effects of cutting trees within forested wetlands (i.e., the effects of on-site harvests), but also the effects on wetlands -- of any type -- where timber is harvested in nearby uplands (i.e., the effect of off-site harvests). In many cases the effects of both on-site and off-site harvests vary with wetland type, so known distinctions are noted.

The TFW Policy Committee and Forest Practices Board recommended no actions be taken as part of either of these two studies because the riparian birds sample indicated a generally insignificant effect of buffer size on bird communities, and the wetlands literature synthesis will inform ongoing research by CMER.

One draft report was approved by CMER to go through Independent Scientific Peer Review in FY 2015:

- Eastside Forest Hydrology Study:
  This study characterized the spatial distribution of headwater stream channels across forested lands of eastern Washington based on observations made at the end of the summer dry season (July 30 – September 20) in 2012. The study tells us that headwater channels exist in specific, identifiable parts of the landscape, and that, at the end of the summer dry season, the proportion of headwater channel length with surface water and with evidence of bedload transport varies systematically with certain landscape features. Digital elevation models and other GIS data (geology, mean annual precipitation) can resolve factors that correlate with channel location and with the proportion of channel length with surface water and with evidence of bedload transport. In this study the primary factor determining where channels are found is contributing basin area (drainage area) to the point of observation. At a given contributing area, mean annual precipitation exerts the primary influence on the observed proportion of sites with channels and on the proportion of channels with water. For a given contributing area and mean annual precipitation, locations with greater plan curvature have a higher proportion of sites with

channels. In distinguishing channel locations with and without surface water, local topography is again important, but it is gradient, rather than plan curvature, that plays the primary role. Steeper channels are more likely to be dry. The presence of surface water also appears to be related to the average steepness of the contributing area, with steeper basins tending to have fewer channels with water. Landscape position is also important: channels near the valley floor are more likely to have water than channels closer to the ridge top. Geology of a basin was also found to play an important role, but with an influence that varied with basin size and was confounded by correlations between geology and basin topography. In general, crystalline igneous and metamorphic rocks tended to contain a greater proportion of wet channels than other rock types. Also of note, is that the proportion of headwater basins with a particular type of surface-water connection to fish-bearing waters varies systematically with headwater-basin characteristics. For this study, we examined three types of surface-water connections observed at the end of summer: no channel, a dry channel, and a channel with surface water. These observations can be translated to the probability for each type of connection for any individual headwater basin. This study was a precursor to the Eastside Type N Riparian Effectiveness project (ENREP) and it provided insight on the occurrence of seasonally dry Np streams that are important for study in eastern Washington.

CMER initiated one new field project during FY 2014:

- The Eastside Type N Riparian Effectiveness project.

  The project aims to answer the following: To what extent are the prescriptions found in the Type N Riparian Prescriptions Rule Group effective in achieving performance targets and water quality standards, particularly as they apply to sediment and stream temperature in eastern Washington?

In addition to the projects listed above, the following CMER projects completed field work milestones in FY2015:

- The Type N Experimental Buffer Treatment Project in Soft Rock Lithologies has completed two years of pre-harvest data collection. Harvesting of the study sites was completed in 2015 and data collection continues to occur during post-harvest activities.
- The Westside Type N Buffer Characteristics, Integrity, and Function (BCIF) project completed fieldwork of a 10-year post harvest re-sampling. QA/QC of data set has been started by NWIFC staff and an appendix to the original report will likely be completed in early 2016.
- The Type N Experimental Buffer Treatment Project on Hard Rock Lithologies five-year post-harvest surveys was completed and the data have gone through QA/QC. The seven- and eight-year post-harvest surveys commenced in 2015 with sampling finishing in 2016.This data will be presented in an appendix to the Original Report which will likely be completed in 2017.

The Forest Practices Board directed CMER to implement a "piloted" Lean process for a limited number of new projects with the intent of increasing efficiency in the scoping and study design phase of new CMER projects. The premise of the Lean process was that smaller teams (referred to as TWIGs) of qualified scientists and technical personnel in the area of expertise specified would be assembled. The TWIGs would be in lieu of a general, larger group of technical personnel referred to as a scientific advisory group. The premise would be that this smaller team would be more effective and efficient developing scoping documents and study designs. Four projects are currently in various stages of the process. They have completed the following work in 2015

- The Eastside Type N Riparian Buffer Effectiveness Project: Policy approved TWIG developed Problem Statement, Objectives and Critical questions, and best available science alternatives analysis. The TWIG is working to finalize the study design to initiate work in the summer of 2016.
- The Unstable Slopes Criteria Project: the Initial Writing Team (IWT) is in the process of completing a best available science alternatives analysis for Policy.
- Roads Prescription-Scale Effectiveness Monitoring Project: Initial meeting of TWIG occurred in 2015 and the team will be working on identifying relevant literature and appropriate study design alternatives in the spring of 2016.
- The Westside Type F Riparian Prescription Effectiveness Project: Policy approved the TWIG developed Problem Statement, Objectives and Critical questions, and best available science literature review and has identified study design alternatives for further evaluation.

3.5 TFW Policy Committee Activity (July 1, 2014 – June 30, 2015)

General Policy Activity

The TFW Policy Committee held a budget meeting in April 2015 and reviewed the FY2016-17 CMER Work Plan and budget based on legislative appropriations. The Forest Practices Board approved the work plan and budget at its May 2015 quarterly meeting. With the exception of the new projects that will be developed through the piloted Lean process, most of the FY2015 research and monitoring projects have been in the work plan and are ongoing projects. Although completion of projects was delayed in FY2015 due to slow review processes in CMER and independent scientific peer review, it is reasonable to anticipate that CMER will complete three projects by the end of FY2016, including Hard Rock, Buffer Shade Effectiveness Study, and the Hardwood Conversion. The CMER Work Plan proposes executing the scoping and study design phases for two projects during the 2016 fiscal year.

In the beginning of FY2013, the TFW Policy Committee initiated discussions on two priority items: development of a Type N water strategy (how to tackle the issue) and development of a strategy for transitioning from the interim water typing rule (Type F/N Water break) to a permanent rule to ensure protection of fish habitat. The TFW Policy Committee approved a type

N water strategy in FY 2013. The purpose of the strategy was to examine the effectiveness of the Type N forest practices rules in protecting water quality including:

- Ranking and funding type N water studies as highest priorities for research;
- Resolving issues associated with identifying the uppermost point of perennial flow; and
- Completing a comprehensive literature review examining the effects of buffering headwater streams.

In 2015 the TFW Policy Committee is currently in discussion about implementation issues associated with the strategy.

In 2015, Policy, under Board direction, prioritized working to resolve the Type F water typing issues, with primary emphasis on evaluating off-channel habitat protection, reviewing the water typing model, and gaining a better understanding on ways to potentially reduce protocol survey electrofishing in establishing a break between fish bearing waters and those that are not occupied by fish.

The capacity of Policy and CMER participants remains limited. Although many projects were continued in 2015 and significant milestones were met on others, scarce human resources limit progress on projects, at least in the short term until solutions are found. Policy recognizes this and efforts have been made to look at the Master Schedule for AMP projects and review the Lean process at CMER.

Clean Water Act Assurances

Upon the completion of the *Forests and Fish Report* in 1999, the Washington State Department of Ecology (Ecology) and the Environmental Protection Agency agreed to provide Clean Water Act assurances to the State of Washington for a period of ten years. It was assumed ten years would be sufficient time to determine if implementation of the revised rules and Forest Practices Program—including adaptive management—were effective in meeting water quality standards, or putting impaired waters on a trajectory to meeting standards. Ecology reviewed the Forest Practices Program to determine if the Clean Water Act assurances should be retained and produced a report of their findings in July 2009. On Ecology's webpage Non-point pollution from Forestry, click on: *2009 Clean Water Act Assurances Review of Washington's Forest Practices Program* (Ecology 2009). This report was transmitted to the Forest Practices Board in October 2009. Ecology has committed to provide the Board with periodic updates on the progress being made to meet milestones established for retaining the CWA Assurances for the forest practices rules and associated programs. This current update covered the period through June 2015.

One CWA milestone was completed during this reporting period and work has occurred to move other CMER research milestones forward. The Alternate Plan guidance memo was developed and accepted by Ecology in December 2014 which completed the alternate plan milestone. All caucuses are involved with the CMER Master Schedule and the capacity of Policy and CMER

participants is limited. Both of these efforts have been noted to be responsible for slowing down work towards meeting the CWA milestones, at least in the short term. Ecology noted in a report to the Board that changes in priorities or project planning made in response to new science-based insights or overwhelming events can be accommodated in the milestones when these changes are an expression of adaptive management and they are not in conflict with the underlying purpose of the CWA milestones.

TFW Policy Committee Priorities for Fiscal Year 2016
To meet directives by the Forest Practices Board, several 2015 priorities were postponed and, therefore, work will continue into 2016; these include:

- Revisited research strategy for mass-wasting research into the CMER work plan and budget;
- Initial steps toward achieving a permanent Type F water rule includes the Policy Committee addressing electrofishing and off-channel habitat, and scoping and initiating a pilot project using LIDAR for hydrologic modeling; and
- TFW Policy Committee decisions on whether or not to take action, including recommendations on changes to rules or board guidance as CMER reports are completed.

The work list that TFW Policy will forward to the Board for FY 2016 will likely include all work items listed above.

3.6 Adaptive Management Program Websites

Refer to the following websites (underlined) for more information about the Adaptive Management Program.

Adaptive Management Program:
http://www.dnr.wa.gov/programs-and-services/forest-practices/adaptive-management

CMER:
http://www.dnr.wa.gov/about/boards-and-councils/forest-practices-board/cooperative-monitoring-evaluation-and-research

3.7 Electrofishing Report

One of the conditions of the Incidental Take Permits relates to electrofishing. United State Fish and Wildlife Service and NOAA Fisheries asked for an accounting of any electrofishing related to Adaptive Management Program research.

Electro-fishing Activity
Research:
Electrofishing conducted for research by the Adaptive Management Program is covered by the Services' incidental take permits. No electrofishing surveys were conducted between July 1, 2014, and June 30, 2015 as part of the Adaptive Management Program's research.

4. Forest Practices Operations

4.1 Introduction

Forest Practices Operations is responsible for administering and enforcing the Forest Practices Rules on approximately 9.3 million acres of private, state, and other non-federal public forestlands. These rules provide protection for public resources defined as: water, fish, wildlife, and capital improvements of the state or its political subdivisions. These rules provide some of the highest standards for resource protection on forestlands in the nation. They give direction on how to implement Washington's Forest Practices Act and are part of the foundation of the Forest Pracatices HCP.

4.2 Forest Practices Activities

Forest Practices Operations section consists of both office and field staff. Statewide there are about 93 full-time positions. Of the 93 positions, 61 are assigned in the field and are directly responsible for reviewing, complying, and enforcing the Forest Practices Act and Rules. This is a slight FTE change from that reported in the 2014 annual report primarily due to the actual alignment of the work connected to new funding that accompanied new forest practices hydraulic project (FPHP) responsibilities. Forest Practices Regional Operations calibrated the FPHP funding with existing staff and expanded office technical assistance for reviewing and processing of the FPHP Forest Practices Application (FPAs). Overall, this accounts for the overall decrease of one FTE and the field position differences between the two years.

For the reporting period of July 1, 2014, through June 30, 2015, Forest Practices Operations staff processed 4,876 applications/notifications. The table below provides a breakdown of this information, by DNR region.

Decisions for Applications Received/Renewed During Fiscal Year 2015

Region	Approved	Closed	Disapproved	Renewed	Total by Region
Northeast	949	13	37	9	1,008
Northwest	510	38	12	13	573
Olympic	604	39	7	15	665
Pacific Cascade	1,450	53	7	31	1,541
South Puget Sound	768	33	39	13	853
Southeast	218	12	2	4	236
Total by Decision	4,499	188	104	85	**4,876**

Closed means the application/notification was withdrawn by the applicant.

During this same reporting period there were a total of 15,234 active approved and renewed applications/notifications statewide (not yet expired).

4.3 Priorities

Forest Practices Operations has three primary functional areas: processing applications, compliance, and enforcement of forest practices activities. This chapter will concentrate on the priorities that have had the greatest impact on Operations during this reporting period.

Forest Practices Hydraulic Projects

Starting in October 2014 a new training curriculum was developed to build on the initial FPHP training. This new training was specifically designed and directed for DNR field and office staff. It covered required elements for a complete FPA, office review of design plans, field review of design plans and field compliance of an installation/removal project. For more information, see the Training/Education/Information chapter.

DNR and WDFW continue to work together on reviewing applications that include forest practices hydraulic projects. From July 1, 2014, to June 30, 2015, there were 2,192 FPAs processed that included activities in or over any typed water (FPHPs). Of the 2,192 FPAs that included activities in or over water, 144 of the FPAs required concurrence review by WDFW (some with multiple hydraulic projects within a single FPA). Concurrence review is required for three specific types of projects as defined in WAC 222-20-017(4)(b). Although concurrence projects are the most complex to design and review, they are a small percentage (7%) of all hydraulic projects submitted.

DNR's Strategic Plan 2014-- 2017: Update to *the Goldmark Agenda* (DNR June, 2014) – *Goal 3 Deliver Exemplary Public Resource Protection through the Forest Practices Program*
The Strategic Plan has identified two major initiatives to be achieved by Operations:

- Support DNR staff with Improved Tools and Resources to Consistently Implement, Ensure Compliance with, and Enforce the Forest Practices Rules.
- Achieve a compliance rate of 90 percent or greater for all riparian, unstable slopes, and road prescriptions.

Each of the 2014-2017 Strategic Plan initiatives is associated with numerous action strategies that will need to be achieved in order to be successful. The following action strategies must be completed:

- Increase the use of technology to achieve improved accuracy, productivity, and efficiency in application submittal, review, and documentation, and compliance tracking – This year, several mobile technology field tests were completed.
- Continue developing new curriculum for the training program for DNR staff and external stakeholders - To this end, this year, DNR provided additional training on FPHP.

- Ensure Road Maintenance and Abandonment Plan deadlines are met and, where applicable, process timely extensions. The objective of processing timely extensions was met.

Forest Practices Program Guidance

Forest practices guidance supplements the Forest Practices Rules and Board Manual. The complexity of the rules, details of program administration and variability in the forested environment pose unique challenges for landowners and DNR staff in implementing the rules across the landscape. Situations arise in which neither the rules nor the Board Manual provide enough specificity to resolve a particular implementation issue. Therefore, DNR develops internal guidance that provides direction consistent with established program goals, resource protection objectives and performance targets. New guidance or changes to existing guidance are communicated to region forest practices staff in writing. Any guidance that affects cooperating agencies, organizations, and landowners is shared outside of the agency.

DNR created several internal guidance documents between July 1, 2014, and June 30, 2015. The following is a summary description of the written guidance that has been shared with the forest practices staff to help them better implement the rules and improve statewide consistency:

Summary of Written Guidance Issued to DNR Staff July 1, 2014 – June 30, 2015

Date	Reason for guidance	Accomplishment
07/24/2014	Northern Spotted Owl Critical Habitat Delineation and Mapping Update	A memo that provides guidance on Northern Spotted Owl (NSO) habitat mapping within spotted owl special emphasis areas (SOSEAs)
07/24/2014	Determination of Erosion Hazard Areas in the Delineation of Channel Migration Zones	Guidance to assist the regions in properly delineating Channel Migration Zones with Erosion Hazard Zones.
10/17/2014	Process for Requests for Additional Slope Stability Information	A memo that provides guidance on requesting additional information for adequate review of potentially unstable features.
11/17/2014	Forest Practices Application/Notification Fees	Updated application/notification fee information to clarify fee schedule for the different types of applications/notifications.
12/24/2014	Alternate Plan Process	Guidance for regions on expectation for review of alternate plans.
2/13/2015	Fish Survey Season – Water Level and Streamflow	Guidance for regions and landowners planning on submitting Water Type Modification Forms.

Date	Reason for guidance	Accomplishment
3/29/2015	Unstable Slopes Rule Adoption	Memo explaining recent rule adoption by Forest Practices Board.
3/30/2015	DNR-ECY-DFW Joint Drought Advisory	Guidance on use of field surveys for water typing during drought conditions.
Spring 2015	FPHP Compliance Field Guide	Resource developed as part of the 2015 FPHP training to help the field staff when reviewing and complying hydraulic projects.

WDFW contribution to Forest Practices Operations

WDFW provides a crucial role in forest practices operational issues. WDFW biologists play an important role in reviewing hydraulic projects and providing assistance to DNR and the applicant. WDFW is legislatively required to review and provide concurrence recommendations to DNR on three specific categories of forest practices hydraulic projects (FPHPs). For all other FPHPs pertaining to Type S and F streams, WDFW is required to review and provide comments to DNR or document that the review has occurred without the need for comment.

WDFW's goal, pertaining to FPHPs, is to review all FPAs containing FPHPs. It is important to note that each FPA may have multiple FPHP projects, which may be a combination of concurrence-required reviews and standard 30-day DNR reviews. Therefore, WDFW has tracked numbers of projects rather than numbers of FPAs. From July 1, 2014, through June 30, 2015, WDFW biologists reviewed 1,399 FPHPs, which included 252 concurrence-required project reviews and 1,147 standard FPHPs. Each FPHP was reviewed for consistency with fish protection standards. WDFW biologists also provided assistance to forest landowners and DNR to help ensure that project plans and designs would be successful for the landowner, while meeting fish protection standards. WDFW encourages landowners to engage in pre-application consultation and on-site technical assistance as often as the opportunities arise.

Other forest practices operational work conducted by WDFW biologists included: review of over 1,000 Water Type Modification Forms and participation in field reviews to validate those proposed water types; participation on ID teams for multiple forest practices issues, road maintenance and abandonment plan (RMAP) review; review and technical assistance on alternate plans for both large and small forest landowners; and technical assistance on other aquatic resource protection issues.

5. Small Forest Landowner Office

5.1 Introduction

The Small Forest Landowner Office (SFLO) serves as a resource and focal point for small forest landowner concerns and policies. Its mission is to promote the economic and ecological viability of small forest landowners while protecting public resources. The office was created as a result of the 1999 Salmon Recovery Act, when the Forests and Fish Rules were passed. These new Forest Practices Rules resulted in increased size of riparian buffers and created further measures to protect water quality and restore salmon habitat in the forests of Washington State. The State Legislature recognized that the Forests and Fish Rules would have a disproportionate economic effect on small, family-owned forests. To help small landowners retain their forestland and not convert the land to other land uses, the legislature authorized the creation of a Small Forest Landowner Office within DNR.

It is estimated that more than 215,000 small forest landowners manage 3.2 million acres of forestland in Washington—approximately half of the private forestland acreage in the state. Their forests tend to be concentrated in the lower elevation habitats along lakes and streams, which are key locations for providing ecosystem functions. Their forests also tend to be subject to development pressures, making it especially important to support them in their efforts to maintain their land in forestry. Due to population growth and a shrinking commercial forest land base, these landowners are absorbing heavy impacts on their forests from increasing demands for timber; fish, wildlife, and water protection; recreational uses; and aesthetics.

This chapter describes the accomplishments, opportunities and challenges of the Small Forest Landowner Office's landowner assistance programs: the Forestry Riparian Easement Program (FREP); the Family Forest Fish Passage Program (FFFPP), and the Forest Stewardship Program. Another program now administered by the office, which assists both small and large forest landowners, is the Rivers and Habitat Open Space Program (RHOSP), which is described in chapter 7 of this report.

5.2 Forestry Riparian Easement Program

Provisions included in the 1999 Salmon Recovery Act established the Forestry Riparian Easement Program (FREP). This easement program acknowledges the importance of small forest landowners and the potential for a disproportionate financial effect of Forest Practices riparian protection rules on them.

The Forestry Riparian Easement Program compensates eligible small forest landowners for "Qualifying timber" within the riparian management zones in exchange for a 50-year conservation easement. "Qualifying timber" includes those trees that the landowner is required to leave unharvested in the riparian zone as a result of Forest Practices Rules protecting Washington's aquatic resources. Landowners cannot cut or remove any Qualifying timber during the life of the easement. The landowner still owns the property and retains full access, but has

"leased" the trees and their associated riparian function to the state. Funding for the program has been allocated by the Washington State Legislature since 2002.

Applications and Acquisitions

Since FREP began, funding has not kept up with demand. There remains a backlog of eligible applications waiting funding for the cost of acquiring the easements. During the 2015 fiscal year, 25 new applications were received and 16 conservation easements were acquired. As a result, as of July 1, 2015, the backlog of unfunded FREP applications now totals 127.

In the 2013 legislative session, DNR requested $13 million to complete the acquisition of the entire FREP backlog. The legislature funded FREP at $2 million for FY13-15. With the $2 million allotted to the program, FREP purchased 25 conservation easements encompassing 288 acres.

The Table on the following page summarizes the Forestry Riparian Easement Program's Capital budget.

Easement and Application Numbers by Fiscal Year

	FY 2002-2009 7/1/02-6/30/09	FY 2010 7/1/09-6/30/10	FY 2011 7/1/10-6/30/11	FY 2012 7/1/11-6/30/12	FY 2013 7/1/12 – 6/30/13	FY 2014 7/1/13 – 6/30/14	FY 2015 7/1/14 – 6/30/15	Totals
Queue Balance at Beginning of FY		83	93	90	104	114	130	
Complete Applications Received	391	12	18	17	25	32	25	520
Number of Easements Purchased	278	0	12	0	13	9	16	328
Applications Ineligible / Rejected	30	2	9	3	2	7	12	65
Queue Balance at End of FY	83	93	90	104	114	130	127	
Acres Purchased	4,793	0	148	0	110	122	166	5,339

5.3 Family Forest Fish Passage Program

The Washington State Legislature established the Family Forest Fish Passage Program (FFFPP) in 2003 (RCW 76.13.150) to provide regulatory and monetary relief for small forest landowners to comply with the Forests and Fish Rule requirement for the removal of fish passage barriers. The voluntary program allows these landowners to sign up for assistance to correct fish passage barriers on their forest road stream crossings. The program is a continuing success, recognized as a model for interagency cooperation and for assisting landowners.

In general, the 2003 law required:

- Washington State to create a cost-share program that would provide from 75-to-100 percent of the cost of removing fish barriers on small forest landowner lands.
- Annual prioritization of barriers and repairs conducted on a "worst-first" basis.
- Relieving landowners who sign up for the program of any forest practices obligations to fix a fish passage barrier until funding is made available to complete the project.

Three state agencies and a stakeholder group cooperate to manage and fund the program:

- Washington State Department of Natural Resources (DNR) Small Forest Landowner Office is the main point of contact for program information, assisting landowners, providing outreach, and coordinating additional funding sources.
- Washington State Department of Fish and Wildlife (WDFW) is responsible for evaluating the barrier, assessing habitat quality of the stream, and ranking barriers for correction.
- The Washington State Recreation and Conservation Office (RCO) administers program funding and provides information on program contracts, billing, and reimbursement.
- Washington Farm Forestry Association (WFFA) represents the small forest landowner community on the steering committee; providing program oversight and assisting with project approval.

WDFW Ranking of Fish Passage Barriers for the Family Forest Fish Passage Program

Program legislation (RCW 77.12.755) directs the repair of worst barriers first starting with barriers lowest in the watersheds. To identify and prioritize the worst barriers, WDFW rates the barriers enrolled in the Family FFFPP on the following criteria:

- Number of fish species that benefit;
- Amount and quality of habitat opened;
- Degree of fish barrier—degree to which fish are prevented from moving up- and down-stream;
- Number and location of other barriers and the degree of those barriers;
- Concurrence from lead entity watershed groups (groups that take the lead on salmon habitat recovery plans in the watershed); and
- Cost effectiveness.

Projects are scored to provide an initial list that is evaluated by the three state agencies; DNR, RCO, and WDFW. This information, along with project cost estimates, is provided to the FFFPP Steering Committee for final funding decisions.

Information on the fish passage barriers obtained during site visits is placed in the WDFW Fish Passage Barrier Inventory. The inventory includes those stream crossings that have been identified through Washington State Department of Transportation inventories, local government inventories, barriers identified in FFFPP stream surveys, and local inventories funded by the Salmon Recovery Funding Board.

When a landowner signs up for the FFFPP, they are then relieved of any responsibility to correct that fish passage barrier until it becomes a high priority for correction under FFFPP, or if the barrier becomes a threat to public resources. If a landowner does not sign up for the FFFPP, it is the landowner's responsibility to correct the fish passage barrier.

In addition to providing adequate funding, the two greatest challenges for the FFFPP are filling data gaps in the fish passage barrier inventory information and getting the word out to landowners who would benefit from the program. DNR and cooperating partners continue to pursue funding for inventory related work.

In the 2015 field season, the FFFPP completed 52 fish barrier removal projects opening 108 miles of upstream fish habitat. Below is a table showing the FFFPP accomplishments since its creation in 2003.

Family Forest Fish Passage Program Accomplishments Since 2003

Numbers and Costs	FY 2015	Cumulative Since 2003
Eligible Small Forest Landowner Applications	111	855
Eligible Barriers	150	1,205
Barriers Corrected	52	393
Stream Miles Opened Up	108	903
Cost of Completed Projects	$5.75 million	$31 million

5.4 Forest Stewardship Program

DNR's Forest Stewardship Program provides professional natural resource advice and assistance to help family forest landowners manage their lands. In addition to a staff of landowner assistance foresters, the program also employs a full-time statewide landowner assistance wildlife biologist. The biologist advises landowners directly and also provides professional consultation to the program's foresters.

In the past year, DNR's landowner assistance foresters /wildlife biologists conducted almost

3,000 landowner technical assistance site visits. These site visits included technical assistance to help landowners meet their land management objectives or to create a Forest Stewardship Plan. These visits also included assistance implementing the federal cost share program for eastside landowners to implement practices to improve the health of their forest and reduce threats like wildfire and insect and pests. These landowner assistance foresters also worked with over 10,000 landowners who contacted them with technical questions via, email or phone calls.

DNR is currently able to support only two landowner assistance foresters in western Washington. These foresters helped landowners complete a total of 121 new Forest Stewardship Plans covering over 12,000 acres in the past year. Because of such a high demand for technical assistance, there remains a backlog of landowners waiting for site visits from the landowner assistance foresters in western Washington. DNR's Forest Stewardship Program is part of the USDA Forest Service's nationwide Forest Stewardship Program and is supported primarily by federal funds from that agency.

In 2011, the Washington State Department of Ecology requested from the Washington State Department of Natural Resources (DNR) a report on the progress of small forest landowners in meeting the Clean Water Act requirements of the Forest Practices Act specific to road maintenance and abandonment requirements. Rather than simply reviewing landowner's Checklist Road Maintenance and Abandonment Plans for the information, in 2015, the SFLO developed and implemented a statewide outreach project to gain more knowledge of small forest landowner road conditions and potential for their roads to meet the Forest Practices Rules and Regulations. The project was implemented statewide to provide supplemental information from the small forest landowner checklist RMAPs in all counties with small forest landownerships.

The goal of the statewide project was to provide information to address the following issues:

- The statewide extent, location and condition of roads on small forest landowner parcels.
- The landowner's understanding of the condition of their road system, their roads' potential for protecting public resources, and what, if any, RMAP requirements apply to the road/s.
- The lack of funding to provide resources to small forest landowners to ensure that compliance with WAC 222-24-0511 is met.

Three sources of data were used to complete this project. One was an online survey that landowners could complete providing information on the condition of their forest roads. Second was completing a survey that was either mailed to them or provided at an outreach event soliciting road information. The last source was data collected during site visits made by a Landowner Assistance Forester.

A total of 2,332 letters were mailed and 6,913 online surveys were sent enlisting landowner participation. This resulted in 32 participants completing and returning the landowner self-assessment survey with 1 percent of the landowners approached responding. A total of 139 participants completed the online survey with 2 percent of the landowners who were sent emails responding. This project reached nearly 10,000 landowners (9,296) with only a total of 222

landowners providing feedback (2%). The results of this outreach effort and the road assessments are still in draft form and will be available for public review shortly.

5.5 Long-Term Applications

Washington's forest practices rules allow a landowner to apply for a forest practices permit to engage in forest practices, which is valid for three years, and in certain cases up to five years. Permits are renewable under certain conditions. The three-year permit works well for those who frequently conduct forest practices such as timber harvesting and road building. Landowners who harvest small volumes of timber and harvest infrequently often find that the application process can be complex, time consuming, and challenging.

To ease the paperwork burden and allow more flexibility in timing harvests, small forest landowners may apply for a Long-Term permit that is valid for up to 15 years. To prepare for a longer time period, landowners need to plan further ahead than the typical permit requires, while the flexibility will allow landowners to react quickly to changing markets and unforeseen events such as forest health problems or weather related disturbance.

The Long-Term Application permit process was implemented in 2007, and DNR has seen a steady increase in Long-Term Applications since that time. As of June 2015, DNR's Forest Practices Activity Review database reported 195 approved Long Term Applications for small forest landowners. This is an increase of 27 Long-Term Applications approved during this reporting period.

5.6 Small Forest Landowner Office Outreach

The Small Forest Landowner Office communicates with agencies and the public to foster a mutual understanding, promote public involvement, and influence actions with the goal of serving as a resource and focal point for small forest landowners concerns and policies.

One of the challenges of the Small Forest Landowner Office is reaching small forest landowners to make them aware of technical, educational, and cost-share assistance programs to protect water quality, fish and wildlife habitat, improve forest health, reduce the risk of wildfire, and help small forest landowners retain their forestland.

To guide the Small Forest Landowner Office work, staff relies on demographic data gathered through a voluntary on-line survey. Information gathered includes size of ownership, length of tenure, primary management objectives, whether water is present on the property, and organizations in which the landowner is involved. To date, the survey indicates that:

- Almost half of the respondents (44%) manage parcels smaller than 20 acres in size.
- Fifty-five percent have land ownership tenure of less than 20 years, with intergenerational ownerships (51^{+} years) comprising less than a fifth of the respondents.
- Over half of the ownerships (58%) have streams, with 18% having more than one type of water body (stream, wetland, lake, or pond). Twenty-seven percent of landowners reported no water body present.

- Over half (56%) of the respondents manage the land for non-timber uses, with wildlife habitat (23%), aesthetics (13%) and recreation (12%) chosen most often. Length of ownership also seems to be a factor in the respondent's primary management objective. Ownerships of 11 to 20 years are the least likely to be used for timber harvest, perhaps reflecting harvest rotation cycles and the age of the timber when the parcels were purchased.
- Responses to the open ended question for organizational involvement indicate that only 21% of landowners are involved in forestry groups, with 67% reporting no organizational affiliation.

Staff continue to utilize demographic tools from the Sustaining Family Forests Initiative Tools for Engaging Landowners Effectively (TELE) in support of outreach efforts. In addition to developing a targeted marketing campaign for the Family Forest Fish Passage Program, staff developed and implemented survey methodology for assessing road condition on small forest holdings.

The Small Forest Landowner office now has a growing list of subscribers to the Small Forest Landowner Newsletter which totals over 4,000 subscribers. The newsletter is distributed every other month. Landowners can subscribe on the website or request by email to sflo@dnr.wa.gov. Readers can catch up on Archived Small Forest Landowner News editions.

The Small Forest Landowner Office currently has a vacancy for the Outreach Specialist/Grant Writer position. We are currently reviewing the duties of this position and the needs of the Office and will fill this position as soon as possible.

DNR conducted collaborative outreach efforts with Washington State University Extension to host three Forest Owners Field Days across Washington State. WSU extension and DNR worked together on promotional materials for the event and work together to facilitate each event.

Small Forest Landowner Office Grant Proposals

The Small Forest Landowner Office continues to seek grant opportunities to support all of the small forest landowner programs. In the past year, five proposals were submitted. The table on the following page summarizes these grant applications.

Grant Applications

Funding Source	Proposal (request)	Status
Natural Resources Conservation Service - Regional Conservation Partnership Program (RCPP)	Eastern Washington Forest Health/Wildfire Hazard Reduction/Forest Habitat Improvement Initiative ($1,860,000)	Not funded

Funding Source	Proposal (request)	Status
	Eastern Washington Fish Passage Blockage Assessment ($540,469)	Not Funded
	Chehalis Basin Landscape Scale Forest Stewardship Planning Initiative ($1,027,000), 11/2014	Not Funded
Forest Service - Landscape Scale Competitive Process (Western Competitive Grant)	Sustaining Family Forestlands: Using a new and effective practical set of tools to target forest landowners in priority landscapes ($1,171,070)	Not Funded
	Chehalis Basin Landscape Scale Forest Stewardship Planning Initiative ($1,078,000), 09/2014	Not Funded

The Small Forest Landowner Office goal is to continue to provide the highest quality of outreach to small forest landowners. The office will continue to pursue the use of media and social media to inform the public about the program and the resources offered. The office continues to search for external funding and grants as they become available to provide more assistance to small forest landowners. An important component of this outreach is to solicit feedback from users and track Small Forest Landowner Office outreach activities to ensure effectiveness.

6. 20-Acre Exempt Riparian Forestland

6.1 Introduction

The 1999 Washington State Legislature exempted certain forestland parcels from some riparian protection measures in the Forest Practices Rules derived from the 1999 Forests and Fish Report. Exempt parcels include those that are 20 contiguous acres or less and are owned by individuals whose total ownership is less than 80 forested acres statewide. These parcels are commonly referred to as "exempt 20-acre parcels." While not subject to some forest practices riparian protection rules, exempt 20-acre parcels must still provide protection for public resources in accordance with the Forest Practices Act.

In arriving at their permitting decisions, the federal Services concluded that they would condition the Incidental Take Permits regarding 20-acre exempt forest practices. Conditions include:

- Requiring leave trees be left along Type Np (non-fish-bearing, perennial) waters for riparian function;
- Providing eligibility criteria for coverage of 20-acre exempt parcels under the Incidental Take Permits;
- Defining coverage thresholds for 20-acre exempt parcels in each watershed administrative unit and water resource inventory area; and
- Identifying certain spawning and rearing habitat of bull trout (also known as "Bull Trout Areas of Concern") where Incidental Take Permit coverage may not apply.

6.2 Type Np Water Leave Tree Requirement

By Washington State Regulation, DNR requires trees to be left on Np (non-fish-bearing, perennial) waters on 20-acre exempt parcels where needed to protect public resources, defined as water, fish, and wildlife. The Services concluded that leaving trees along Np waters is necessary in most situations. The Forest Practices HCP Incidental Take Permits say that "permittee (Washington State) shall require trees to be left along Type Np waters under the 20-acre exemption unless such leave trees are not necessary to protect covered species and their habitats." In order to implement this permit condition, a guidance memo was written September 26, 2006 and delivered to DNR region forest practices staff clarifying that "henceforth Forest Practices Applications (FPA/s) should be conditioned to require leave trees along Type Np waters within exempt 20-acre parcels unless DNR determines this is not necessary". See the 2007 Forest Practices HCP Annual Report for a copy of the guidance memo. Leave tree requirements are detailed in WAC 222-30-023(3): "…leave at least 29 conifer or deciduous trees, 6 inches in diameter or larger, on each side of every 1000 feet of stream length within 29 feet of the stream. The leave trees may be arranged to accommodate the operation."

There were thirteen Forest Practices Applications associated with 20-acre exempt parcels that had Type Np waters during FY 2015 (July 1, 2014, to June 30, 2015). Eleven of the applications were either conditioned according to the Np guidance memo (which reflects WAC 222-30-

023(3)) or did not propose harvest within 29 feet of the Np water. One describes how leave trees are marked but does not have the requirements statement on the FPA and the other did not mention leave trees on the FPA.

6.3 Watershed Administrative Unit and Water Resource Inventory Area Thresholds

In the Incidental Take Permits, the Services defined permit coverage limits for watershed administrative units (WAU) and water resource inventory areas (WRIA). The Services placed a 10 percent limit on cumulative reduction in riparian function (as measured by the amount of recruitable large woody debris such as snags and tall trees that could fall across a stream or other water body) on streams on FPHCP covered land within a watershed administrative unit for 20-acre exempt parcels. Additionally, the Services placed a 15 percent stream length limit within water resource inventory areas. The 15 percent limit is based on the cumulative stream length of the affected streams on FPHCP covered land within each WAU in the WRIA that has reached the 10 percent limit. When a limit within a watershed administrative unit or water resource inventory area is reached, subsequent FPAs on 20-acre exempt parcels within those units or inventory areas will not be covered by the Incidental Take Permits unless the landowner chooses to follow standard Riparian Management Zone (RMZ) rules. Washington State has adopted a method, approved by the Services, to estimate cumulative percent reduction of potential large woody debris recruitment function, by watershed administrative unit, and percent cumulative stream length affected, by water resource inventory area.

6.4 Cumulative Reduction in Function Calculation Methodology

A formula called the Equivalent Area Buffer Index (Buffer Index) is used to estimate the percent reduction in function, as measured by potential large woody debris that could be recruited along fish-bearing streams. The Buffer Index was developed for the Forest Practices HCP Environmental Impact Statement (EIS) (USFWS et. al 2006) as a tool for comparing management alternatives in terms of the level of ecological function conserved through various management practices. The Buffer Index for large woody debris recruitment potential is a quantitative measure that evaluates the potential of a riparian forest to provide trees and other woody debris across and into streams originating from tree mortality, windthrow and bank undercutting. The Buffer Index is expressed as a function of slope distance from the stream channel in relationship to tree height. The methodology takes into account management activities within the buffer zone. The Buffer Index value is determined based upon the ‘mature conifer curve of large woody debris recruitment potential’ by McDade et al (1990). It relates the cumulative percent of large woody debris recruitment with the distance from the stream bank in terms of tree height. The Environmental Impact Statement (EIS) for the Forest Practices HCP provides average Buffer Indexes for western and eastern Washington. These averages are used each year to estimate the potential cumulative reduction in large woody debris recruitment function from 20-acre exempt Forest Practices Applications submitted to DNR during the fiscal year.

Example explaining Buffer Index formula for fish-bearing stream in western Washington

- **Step 1 — Consider a fish-bearing stream (Type F).**
  The assumptions for this stream's Riparian Management Zone include a Channel Migration Zone (CMZ) that is 10-feet wide, followed by a 50-foot core zone of forest along the stream, followed by a 60-foot inner forest zone in which a light selection harvest is assumed (30 percent volume removal), followed by a 45-foot outer zone in which a moderately heavy selection harvest is assumed (70 percent volume removal). This gives a total RMZ width of 155 feet including the 10-foot CMZ. The total RMZ width of 155 feet is based on an average of Site Class II and III areas [(140+170)/2], which represent the most common site classes on forestland covered by the Incidental Take Permits.
- **Step 2 — Refer to the McDade (1990) mature conifer curve.**
  The McDade curve has been standardized for 155 feet, as the buffer distance that assumes full protection for the 100-year Site Potential Tree Height. This curve shows the cumulative percentage of large woody debris contribution in relation to the distance from the stream. In our example, we need to determine the percent of the total large woody debris contributed by the different RMZ zones (e.g., 0-10 feet, 10-60 feet, 60-120 feet and 120-165 feet). The values from McDade are 17 percent for the 0-10 foot zone, 62 percent for the 10-60 foot zone, 18 percent for the 60-120 foot zone, and 3 percent for the 120-165 foot zone.
- **Step 3 — Multiply the contribution percentage by the tree retention percentage for each RMZ zone, and sum them up.**
  (0.17 1.0) + (0.62 x 1.0) + (0.18 x 0 .7) + (0.03 x 0.3) = 0.925
- **Step 4 — Results**
  Therefore, the RMZ on Type F streams in western Washington would provide for an estimated 92.5 percent of large woody debris recruitment potential, given the assumption that full recruitment potential is achieved at a buffer width equal to the 100-year Site Potential Tree Height.

Annual in-office calculations of reduction in function based on proposed harvests

An estimate of potential reduction in function by watershed administrative unit is calculated annually and reported in the Forest Practices HCP annual report. The impact is "potential" because the calculations are based on "proposed" harvests, not "completed" harvests and estimates of stream impact are made in-office from information supplied on the FPA, not on-the-ground measurements. Average Buffer Index values are used to calculate the overall possible reduction in function by WAU. The average Buffer Index values used for the annual report calculations are taken from the Final EIS (Appendix B page B-28) for the Forest Practices HCP. These average Buffer Index values were obtained through modeling harvests based on both Forests and Fish Rules, and pre-Forests and Fish Rules. Many assumptions went into the modeling effort including degree of harvest, width of riparian area, stream width, etc. An end result of the harvest modeling was the development of average values for an overall Buffer Index for eastern and western Washington for harvests complying with Forests and Fish Rules, as well as with pre-Forests and Fish Rules.

The EIS average Buffer Index values for Forests and Fish Rules are used in our calculations without modification; however, an additional 15 percent was added to the EIS average Buffer Index values for pre-Forests and Fish Rules because the 1999 Salmon Recovery Act required 20-acre exempt landowners to protect an additional 15 percent of riparian trees above pre-Forests and Fish Rules. The average reduction in function value was calculated by subtracting the pre-Forests and Fish Rules Buffer Index values from the Forests and Fish Rules Buffer Index values for a percent reduction in function.

Below are the Buffer Index values and reduction in function factors used for the Forest Practices HCP Annual Report.

Buffer Indexes for Western Washington:
Buffer Index average for Forests and Fish Rules = 0.93
Buffer Index average for Rules prior to Forests and Fish = 0.60
Buffer Index average for 20-acre exempt rules = 0.60 x 1.15 = 0.69
Average Reduction in function factor = 0.93 – 0.69 = 0.24

Buffer Indexes for Eastern Washington:
Buffer Index average for Forests and Fish Rules = 0.91
Buffer Index average for Rules prior to Forests and Fish = 0.67
Buffer Index average for 20-acre exempt rules = 0.67 x 1.15 = 0.77
Average Reduction in function factor = 0.91– 0.77 = 0.14

The estimated number of feet of fish bearing stream potentially affected by harvests through Forest Practices Applications is tracked throughout the year. The total number of feet of stream length in each watershed administrative unit is calculated for the fiscal year and then multiplied by 0.24 in western Washington and 0.14 in eastern Washington to derive the total stream distance over which large woody debris recruitment functions are reduced in function. These numbers are summed over the years and then divided by the GIS calculated total fish bearing stream length on lands regulated by forest practices in the watershed administrative unit to determine potential percent cumulative reduction in function

The following table contains the cumulative in-office estimates of reduction in function by watershed administrative unit for the time period of June 5, 2006, to June 30, 2015. A visual representation of the 20-acre Exempt Forest Practices Applications accounted for in the following table can be found in Appendices #2a and #2b. The two maps in these appendices show the location of the 20-acre exempt applications for FY 2015 and the location of all 20-acre exempt applications since June 2006. Maps showing 20-acre exempt Forest Practices Applications in previous fiscal years can be found in previous Forest Practices HCP annual reports. *NOTE: The reader will see that a few of the WAUs below have a lower percentage reduction in function than the previous year's (2014) report. This is because of a miscalculation*

in total stream length for the new WAUs that were new on the list last year. The miscalculation has now been corrected.

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Abernathy	0.044
Acme	0.052
Antonie Creek	0.019
Bangor-Port Gamble	0.317
Bellingham Bay	0.131
Black River	0.008
Bogachiel	0.051
Blanchard Creek	0.040
Bunker Creek	0.167
Camano Island	0.200
Carbon	0.076
Carpenter	0.144
Cathlapotl	0.195
Cedar Creek/Chelatchie Creek	0.402
Chehalis Headwaters	0.006
Chehalis Slough	0.191
Chimakum	0.049
Chinook	0.021
Church Creek	0.363
Cloquallum	0.082
Coal Creek	0.220
Columbia River/Rock Creek	0.017
Colvos Passage/Carr Inlet	0.138
Conboy	0.028
Connelly	0.166
Copper Creek	1.530
Corkindale	0.097
Cottonwood Creek	0.017
Cowlitz River/Mill Creek	0.118
Damfino	0.306
Davis Creek	0.114
Day Creek	0.247
Deadman Creek/Peone Creek	0.153
Delameter	0.046

Delezene Creek	0.099
Diobsud Creek	2.307
Discovery Bay	0.033
Dragoon Creek	0.031
Drayton	0.327
Dyes Inlet	0.185
East Creek	0.031
East Fork Hoquiam	0.141
East Fork Humptulips	0.099
EF Satsop	0.005
Electron	0.030
Elk River	0.067
Everett	0.056
Ferndale	0.179
French-Boulder	0.037
Friday Creek	0.768
Gibson Ck.	0.187
Gilligan	0.095
Grays Bay	0.034
Great Bend	0.039
Haller Creek	0.049
Hamilton Creek	0.045
Hansen Creek	0.320
Harstine Island	0.106
Hoko	0.004
Hope Creek	0.042
Horseshoe Falls	0.639
Huckleberry Creek	0.019
Hutchinson Creek	0.131
Independence Creek	0.152
Jim Creek	0.033
Johns River	0.062
Jordan	0.080
Key Peninsula	0.080
Kiona Creek	0.131
L. Pilchuck Creek	0.067
L.Snoqualmie River/Cherry Creek	0.005
Lacamas	0.106
Lacamas Lake	0.254

Lake Merwin	0.289
Lake Whatcom	0.098
Liberty Miller - Appletree	0.296
Lilliwaup	0.023
Lincoln Creek	0.036
Little Deep Creek	0.046
Little Spokane/Deer Creek	0.053
Little Washougal	0.206
Little White Salmon River	0.018
Long Beach	0.085
Lost Creek	0.905
Lower Chehalis/Elizabeth Creek	0.013
Lower Coweeman	0.167
Lower Cowlitz	0.096
Lower Deschutes	0.097
Lower Dosewllips	0.172
Lower Elochoman	0.171
Lower Humptulips River	0.039
Lower Kalama	0.070
Lower Naselle	0.023
Lower NF Stillaquamish	0.143
Lower Newaukum	0.418
Lower Pilchuck Creek	0.216
Lower Pilchuck River	0.285
Lower Quinault	0.665
Lower Riffe Lake	0.017
Lower Skokomish	0.066
Lower Snoqualmie River/Cherry Crk.	0.088
Lower Willapa	0.205
Lower Wind	0.046
Lower Wishkah	0.042
Lynch Cove	0.183
Mashel	0.039
Mason	0.116
McLane Creek	0.022
MF Satsop	0.034
Middle Humptulips	0.043
Middle Sauk	0.021
Mill Creek	0.019

Mill Creek/Clugton Creek	0.032
Mitchel	0.038
Moran Creek	0.057
Mox Chehalis	0.107
Mt Zion	0.032
Muck Creek	0.228
Naselle Headwaters	0.008
Nemah	0.038
NF Granite Creek	0.034
Nineteen Creek	0.190
Nookachamps	0.014
North Headwaters	0.049
North-Middle Forks Deer Creek	0.059
Olequa	0.273
Ostrander	0.324
Otter Creek	0.041
Packwood Lake	0.245
Patit Creek	0.052
Pend Oreille/Cedar Creek	0.040
Pilchuck Mtn.	0.013
Port Angeles	0.154
Porter Canyon	0.031
Possession Sound-N. Elliot Creek	0.139
Quilceda Creek	0.278
Quillisascut Creek	0.126
Quinault Lake	0.114
Raging River	0.026
Reese Creek	0.037
Rock Creek	0.159
S. Sinclair Inlet	0.032
Salmon Creek	0.046
Salt Creek	0.251
Samish Bay	0.090
Samish River	0.112
Sammamish River	0.038
San Juan	0.045
Satsop	0.123
Scatter Creek	0.011
Sekiu	0.022

Sequim Bay	0.087
Siebert McDonald	0.063
SF Skokomish	0.061
SF Skykomish River	0.020
SF Willapa	0.070
Silver Lake	0.163
Smith Creek	0.036
Smith Point	0.769
Sol Duc Valley	0.014
Squalicum Creek	0.071
St. Peter-Lambert	0.025
Stillaguamish Flats	0.037
Sultan River	0.042
Sumas River	0.121
Sutherland Aldwell	0.283
Tacoma Creek	0.103
Tanwax Creek	0.224
Toandos Peninsula	0.059
Toutle River	0.132
Upper Chehalis/Rock Creek	0.088
Upper Coweeman	0.033
Upper Little Pend Oreille River	1.48
Upper NF Stilly	0.071
Vancouver	0.603
Vashon Island	0.050
Vedder	0.761
Verlot	0.053
Vesta Little N.	0.005
West Fork/Mid Fork Hoquiam	0.026
West For Wasougal	0.051
Whidbey Island	0.125
White Salmon/Buck Creek	0.023
Wilkeson	0.032
Willapa Headwaters	0.008
Winston Creek	0.024
W. Kitsap	0.023
Wishkah Headwaters	0.081
Woodland Creek	0.506
Woods Creek	0.075

Wynochee River System	0.017
Yacolt	0.301
Yelm Creek	0.230

The table above shows estimated percent of loss of potential large woody debris recruitment in each watershed administrative unit containing one or more 20-acre exempt FPAs over the elapsed nine year period of the Incidental Take Permits. There are a total of 846 watershed administrative units in the state, of which 193 have had 20-acre exempt FPAs approved. Currently, in-office calculations indicate that each watershed administrative unit affected by 20-Acre Exempt applications, except for three, has less than one percent potential cumulative reduction in function relative to standard Forest Practices prescriptions. The largest potential impact is in the Diobsud Creek WAU in the Upper Skagit WRIA, which has a total of only 18,197 feet of fish-bearing stream in the entire watershed unit. In-office calculations of proposed applications show a possible 2.307 percent potential reduction of large woody debris recruitment function in the Diobsud Creek WAU. The Copper Creek WAU in the Lewis WRIA, with 17,464 feet of fish-bearing stream, shows a potential of 1.53 percent reduction of large woody debris recruitment function. And the Upper Little Pend Oreille River unit in the Colville WRIA, with 8,978 feet of fish-bearing stream, shows a possibility of 1.48 percent potential reduction of large woody debris recruitment function. Seventy-four watershed administrative units indicate a potential of reduction in function between 0.1 and 0.9 percent: and the remaining 116 watershed administrative units listed in the above table show the possibility of less than 0.1 percent reduction in function; since the 2006 issuance of the Incidental Take Permits.

6.5 Data Collection for Watershed Administrative Unit Threshold

Cumulative Stream Length for Water Resource Inventory Areas

A fish-bearing stream baseline length was calculated for all WRIAs. As in-office calculations indicate that the 10 percent threshold may be approached in a watershed administrative unit, DNR will compare the total stream length in each watershed administrative unit to determine when the 15 percent threshold might be reached for the water resource inventory area. DNR will then inform landowners that subsequent Forest Practices Applications associated with 20-Acre Exempt parcels within the area will no longer be covered by the Incidental Take Permits, unless individual landowners choose to apply standard Riparian Management Zone rules on their 20-Acre Exempt forest practice. Currently, there are no watershed administrative units approaching the 10 percent threshold for reduction in function; therefore, no areas currently are at risk for reaching the 15 percent stream threshold.

6.6 Bull Trout Areas of Concern

The USFWS placed conditions on its Incidental Take Permit regarding specific, identified spawning and rearing habitat areas for bull trout. These areas are of concern because of extremely low populations of bull trout. The condition states that a forest practice that qualifies for and uses the 20-Acre Exempt riparian rules and falls within these bull trout areas of concern will not be covered by the Incidental Take Permits unless the forest practice is shown to not

measurably diminish the level of riparian function. The function is measured by potential large woody debris recruitment and is compared to the level of function that would have been provided by the standard Forest Practices Rules. The State and USFWS together developed a process to track forest practices in these bull trout areas of concern. The process was described in the 2009 Forest Practices HCP Annual Report (DNR 2009). There were no Forest Practices Applications associated with 20-Acre Exempt parcels in the bull trout areas of concern during the reporting period from July 1, 2014, through June 30, 2015.

6.7 20-Acre Exempt Forest Practices Application Data

Of the 4,876 Forest Practices Applications processed throughout the reporting period, 4,499 were approved, and of those, 72 were new, approved 20-Acre Exempt applications adjacent to fish-bearing streams.

Number of 20-Acre Exempt Forest Practices Applications (July 2014 – June 2015)

20-Acre Exempt Forest Practices Applications with Specific Characteristics	Number
Number of 20-Acre Exempt applications with fish-bearing water	72
Number of 20-acre Exempt applications that were conversions with fish-bearing water	1
Number of 20-Acre Exempt applications with fish-bearing water that were not conversions	71
Number of 20-Acre exempt applications that were in Bull Trout Areas of Concern	0

Twenty-acre exempt non-conversion applications along fish-bearing water comprised approximately1.6 percent of all approved applications submitted during the 2014-2015 reporting period. 20-acre exempt conversion FPAs are not included in the calculation because the Incidental Take Permits do not cover Forest Practices Applications that are conversions.

7. Alternate Plans, Rivers and Habitat Open Space Program

7.1 Introduction

This chapter provides information about two areas of interest to the Services – Alternate Plans, and the Rivers and Habitat Open Space Program. Alternate Plans are forest practices plans that deviate from standard Forest Practices Rules but provide public resource protection equal in overall effectiveness as the standard rules. The Rivers and Habitat Open Space Program acquire permanent forestland conservation easements between landowners and the State. The lands eligible for this program include timber along the area of active channel of a stream that is prone to move, also called channel migration zones. In 2009, the legislature expanded the program to allow acquisitions of conservation easements on forest land habitat for state listed species identified as threatened or endangered.

7.2 Alternate Plans

An Alternate Plan is a tool forest landowners can use to develop site-specific management plans for forest activities regulated under the Forest Practices Act. An Alternate Plan may deviate from the standard Forest Practices Rules, as long as the plan provides protection to public resources at least equal in overall effectiveness to that provided by the Forest Practices Act and rules. WAC 222-12-0401 describes the Alternate Plan process, including the review by interdisciplinary teams.

The following table shows the number and status of Forest Practices Applications submitted that included an Alternate Plan during the period from July 1, 2014, to June 30, 2015:

Forest Practices Applications with Alternate Plans during FY 2015

Landowner Type	Status of Forest Practices Applications with Alternate Plans				Total
	Approved	Disapproved	In Review	Closed Out*	
Small	103	1	5	10	**119**
Large	46	1	3	2	**52**
Total	**149**	**2**	**8**	**12**	**171**

***Closed Out** means that the applicant has asked that the FPA be withdrawn and closed.

7.3 Rivers and Habitat Open Space Program

Like the Forestry Riparian Easement Program (see chapter 5), the original Riparian Open Space Program was a product of the 1999 Forests and Fish Law. It was codified in the Forest Practices Act and adopted by the Board as a forest practices rule. The 2009 Legislature amended the Riparian Open Space Program to be broader in scope. The Forest Practices Board then amended the forest practices rules to include the revisions in statute made by the legislature and changed the name of the Program to the Rivers and Habitat Open Space Program. The effective date of the revised rules was June 19, 2011.

The Rivers and Habitat Open Space Program is available to all forest landowners, not just small forest landowners. The Program promotes long-term conservation of aquatic resources and upland habitats through the purchase of conservation easements. The program acquires conservation easements on lands and timber within a specific type of channel migration zone known as an "unconfined channel migration zone." It also acquires easements to conserve habitat of threatened and endangered species.

A channel migration zone is the area where the active channel of a stream is prone to move in the near term. Unconfined channel migration zones are generally larger water bodies, have less than 2 percent gradient and are found in a valley more than four times wider than the bank-full width of the channel. These areas typically have very high ecological value as spawning and rearing habitat for salmon and other fish species. Under the Forest Practices Rules, no timber harvesting or road construction may occur within channel migration zones due to their ecological importance and sensitivity.

The Forest Practices Rules protect critical habitat of ten upland species, two of which are the northern spotted owl and the marbled murrelet. 'Critical habitat' is a designation to protect the important habitat characteristics that will assist in the recovery of the threatened or endangered species. Landowners of forests determined to be critical habitat for these species are eligible to grant to the State a perpetual conservation easement under the Rivers and Habitat Open Space Program.

The Northern Spotted Owl Implementation Team (NSOIT), established by the Forest Practices Board in 2010, consists of stakeholders representing conservation, state government, industry, land trusts, and small forest landowner interests. The Forest Practices Board tasked the NSOIT in 2010 to develop strategic voluntary incentive mechanisms on nonfederal lands in Washington to contribute to northern spotted owl conservation. In 2010, the Forest Practices Board also directed the NSOIT to form a technical team to "assess the spatial and temporal allocation of conservation efforts on nonfederal lands using best available science." On November 8, 2013, the NSOIT sent a memo to the Washington Forest Practices Board which included consensus recommendations on habitat incentives for voluntary northern spotted owl conservation on nonfederal lands in Washington. The NSOIT found that strategic additions of northern spotted owl habitat can meaningfully contribute to the species' conservation and recommended an initial set of conservation incentive priority areas.

For the FY13-15 funding period the Rivers and Habitat Open Space Program was appropriated $500,000. One application was selected based on criteria that were responsive to the NSOIT's habitat incentives priorities for the northern spotted owl.

DNR screens applications, prioritizes qualifying applications, and acquires conservation easements based on available funding. There is $1,000,000 allocated for the Rivers and Habitat Open Space Program for the FY15-17 funding period. Applications for conservation easements for channel migration zones are prioritized separately from applications for habitat of threatened and endangered species. Applications are prioritized based on conservation benefits and landowner management options.

The following chart shows the budget allocated by the Washington State Legislature for the Rivers and Habitat Open Space Program, and the acres purchased since program's inception.

Budget, and Acres Purchased under Rivers and Habitat Open Space Program

Fiscal Year	Budget Allocated	Amount Spent	Number of Transactions	Acres Purchased
01-03	$1,000,000	$1,000,000	3	387
03-05	$1,000,000	$500,000	5	197
05-07	$2,000,000	$0	0	0
07-09	$2,200,000	$2,200,000	4	339
09-11	$500,000	$460,000	4	119
11-13	$0	$0	0	0
13-15	$500,000	$500,000	1	25
Total	7,200,000	4,660,000	17	1,067

The $500,000 left over from FY03-05 was reallocated for FY05-07. All of the $2 million from FY05-07 was reallocated for FY07-09. There were no transactions for FY05-07 because applicants withdrew due to values lower than anticipated, or the lands were not eligible. There were 11 applications for FY09-11, of which eight were eligible. DNR assembled a Technical Selection Committee that determined the priority of funding of the eligible applications for the $500,000 allocated for the FY09-11 funding period. There were no funds allocated for fiscal years 2011 to 2013. In the 2013-15 biennium one 25-acre easement was purchased with the $500,000 allocation.

8. Enforcement

8.1 Introduction

Working in conjunction with forest landowners, timber owners, and operators, the Forest Practices Program staff is responsible for ensuring forest practices activities are conducted according to the Forest Practices Act and Rules, as well as the conditions of the approved Forest Practices Application/Notification. Region Forest Practices Program staff prioritize compliance inspections relative to the potential risk to public resources posed by the proposed activity. For example, landowners who propose substantial road construction in steep terrain—where there is potential for sediment delivery to a stream—will receive a higher level of compliance inspections, than a proposal that has limited road construction on gentle slopes that have no associated risk of sediment delivery to a stream.

A classification system for forest practices applications helps rank the level of risk of the forest practices proposed in the application to a public resource and is, therefore, used as a tool for program foresters to determine the level of compliance inspections that will be conducted for a particular proposed activity. This targeted approach helps ensure the most effective and efficient use of a Forest Practices foresters' time.

Four classes of forest practices

- **Class I** – determined to have no direct potential for damaging a public resource.
- **Class II** – determined to have a less than ordinary potential to damage a public resource.
- **Class III** – determined to have an average potential to damage a public resource.
- **Class IV** – determined to have potential for a substantial impact on the environment – this is further evaluated dependent upon whether the proposal is **Class IV-General**, or **Class IV-Special** classification. Applications classified as IV-General are applications that are being converted from forestry to a different land use such as residential or agriculture.

Regardless of the classification, all forest practices activities must be performed in compliance with the Forest Practices Act and Rules. More detailed information on forest practices classifications can be found in WAC 222-16-050.

Compliance visits are an important part of the Forest Practices forester's job. The information gathered during compliance visits and through the Compliance Monitoring Program (Chapter 9) is used to improve delivery of the Forest Practices Program. Improvement may include clarifying or modifying rule language, improving forms and processes, providing guidance documents or modifying board manuals, improving the administration of the rules, and preparing specific education and training opportunities. Field compliance visits will continually inform all these efforts aimed at improving compliance with the Forest Practices Rules.

When an activity is found to be out of compliance with a forest practices rule, program staff have several enforcement options available: Notices to Comply (NTC), Stop Work Orders (SWO), civil penalties, Notice of Intent to Disapprove (NOID), and criminal penalties. The Forest Practices Act and rule encourage informal, practical, result-oriented resolution of alleged violations and actions needed to prevent damage to public resources. A progressive approach to enforcement is used that begins with consultation and voluntary efforts to achieve compliance while reserving civil penalties (monetary fines) for more serious infractions. Often informal conference notes (ICN) are used to document decisions and conversations that are not of an enforcement nature, or to inform the process when future enforcement may be necessary.

8.2 Enforcement Activity

Enforcement documents can be used for either violations or non-violations. Violations are forest practices activities that have resulted in damage to a public resource or violate a law or rule. Non-violations are situations where damage to a public resource has not occurred but the Forest Practices forester has determined that damage is imminent if the activity or condition is not altered. An example would be an operator who does not have adequate road surface drainage on a haul road for use in the rainy season. The operator could be issued a non-violation Notice to Comply requiring the road be improved and maintained so it does not pose a threat to public resources during heavy rains. The following table shows enforcement activity between July 1, 2014, and June 30, 2015.

Stop Work Orders and Notices to Comply Issued in Fiscal Year 2015

	Stop Work Orders		Notices to Comply		
DNR Region	**Non-Violation**	**Violation**	**Non-Violation**	**Violation**	**Total**
Southeast	0	0	1	11	12
Northwest	1	16	13	24	54
South Puget Sound	5	4	4	10	23
Northeast	0	2	8	12	22
Pacific Cascade	0	7	7	11	25
Olympic	1	3	3	2	9
Total	7	32	36	70	145

Fiscal Year 2015 Enforcement Data Summary

Number of active Forest Practices Application/Notifications (FPA/Ns) through June 30, 2015 (See chapter 4 for information about FPAs received or renewed during Fiscal Year 2015.)	15,234*
Number of Notice To Comply / Stop Work Orders issued for violations	102
Ratio of Notice To Comply / Stop Work Orders **violations** to total number of active FPA/Ns (102/15,234)	0.6%
Number of Notice To Comply / Stop Work Orders issued for non-violations	43
Ratio of Notice To Comply / Stop Work Orders **non-violations** to total number of active FPA/Ns (43/15,234)	0.2%
Total number of documents issued (violation & non-violation)	145
Ratio of all documents issued to total active FPA/Ns (145/15,234)	0.9%

*Approved and/or Renewed Forest Practices Applications

The table above compares the number of Notice to Comply and Stop Work Order documents issued in FY2015 to the number of active (i.e. not yet expired) Forest Practices Applications through June 30, 2015. Overall, the intent is to encourage landowners to successfully implement the rules to protect public resources.

The program has about 64 Forest Practices Program field staff statewide that enforces the Forest Practices Act and Rules and helps ensure compliance.

The majority of violations do not require additional enforcement action, such as issuance of a civil penalty or Notice of Intent to Disapprove. The majority of initial enforcement actions have proven to bring landowner behavior back into compliance with the rules without higher levels of enforcement action needing to be taken. When determining the appropriate level of enforcement a number of factors are taken into consideration, such as:

- Failure to comply with the terms or conditions of a Forest Practices Application /Notification or Stop Work Order,
- The probability of more than minor harm to the environment,
- The extent of damage to the public resource, and
- Multiple violations of the same rule or law by the same landowner or operator.

The table below shows the number of Civil Penalties and Notices of Intent to Disapprove that became a Final Order (all appeal processes have concluded) during FY2015.

Fiscal Year 2015 Civil Penalties and Notices of Intent to Disapprove

Region	Civil Penalties	Notice of Intent to Disapprove
Southeast	1	0
Northwest	2	0
South Puget Sound	1	0
Northeast	1	0
Pacific Cascade	1	0
Olympic	0	0
Total	6	0

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9. Compliance Monitoring Program

9.1 Introduction

DNR is mandated by law to conduct compliance monitoring. WAC 222-08-160(4) states "DNR shall conduct compliance monitoring that addresses the following key question: 'Are forest practices being conducted in compliance with the rules?' DNR shall provide statistically sound, biennial compliance audits and monitoring reports to the Board for consideration and support of rule and guidance analysis. Compliance monitoring shall determine whether Forest Practices Rules are being implemented on the ground. An infrastructure to support compliance will include adequate compliance monitoring, enforcement, training, education and budget."

The Compliance Monitoring Program (CMP) that was developed in response to WAC 222-08-160(4), is a key component of the Forest Practices Program. DNR's compliance monitoring program uses detailed field protocols to produce statistically reliable compliance determinations. Compliance monitoring provides feedback on how well operators and landowners are complying with the Forest Practices Rules when conducting forest practices activities. The information gained through the CMP (as well as from the daily efforts of on-site Region Forest Practices foresters) provides critical feedback to the Forest Practices Program about where to focus training efforts as well as where improvements may be needed in forest practices application review, compliance, or enforcement and where rule clarification or board manual additions are needed.

When initial funding for the CMP was allocated by the legislature in 2006, DNR, with input from other stakeholders, developed a compliance monitoring program design and implemented a pilot sampling effort. The Compliance Monitoring Program has completed annual compliance monitoring sampling every year since the 2006 pilot. The program has also produced biennial reports that provide and explain results of the field reviews.

All completed reports can be found on the compliance monitoring program website: http://www.dnr.wa.gov/programs-and-services/forest-practices/rule-implementation.

The CMP is administered within DNR by a compliance monitoring program manager and is staffed by a manager and a program specialist. Survey teams of four to five professional foresters, geologists, and biologists conduct the monitoring. The professionals come from DNR, Ecology, WDFW, and several tribes. Landowners are invited to attend the field assessments.

Input to the program is provided by the Compliance Monitoring Stakeholder Committee, which includes representatives of the DNR, Washington Department of Fish and Wildlife, Department of Ecology, Tribes and tribal organizations, the Services, Washington Farm Forestry Association, Washington Forest Protection Association, industrial landowner representatives and the conservation caucus. This group meets 1-2 times per year and provides advice on:

- Clarification of rule elements when questions arise,
- Consistent implementation of program protocols, and
- Recommendations from the committee for Compliance Monitoring Program improvement.

Compliance monitoring is limited by mandate, budget, and staffing which results in a focused program with a well-defined, yet limited, scope. Compliance monitoring does not:

- Focus on individual landowners and compliance specific to those landowners, but rather focuses on the two overall groups of small and large forest landowners.
- Focus on individual region results. All data collected informs the overall population sample for a particular activity.
- Enforce forest practices rule violations – when field reviewers encounter rule violations, the appropriate DNR regional staff is notified for further action, or
- Modify water types – field reviewers do, however, record observed differences between water type documentation on forest practices applications and on-the-ground physical features.

The Compliance Monitoring Program evaluates compliance with those rules considered to have the greatest impact on the protection of aquatic and riparian species and their habitat (riparian, wetland, road construction and maintenance, and haul route rules).

The Compliance Monitoring Program monitors by "rule prescription type". Prescription types are groupings of similar FP rules that apply to a forest practices activity. Forest practices activities are operations such as timber harvest and forest road construction that are subject to Forest Practices rules. For example, forest practices activity types such as road construction and timber harvest are evaluated based on options available for implementing a particular activity – such as the many options available for harvest in the riparian management zone (RMZ) (desired future condition (DFC) Option 1, DFC Option 2, etc.); and by function/feature being protected such as water quality and wetlands. In compliance monitoring reports, for example, DFC Option 1 is called a prescription type. The compliance monitoring program monitors and reports compliance monitoring findings by each of the prescription types.

The prescription type rule groupings allow for statistical estimation of compliance by those specific rule groups rather than an overall forest practices compliance rate. This enhances the ability to determine where additional training or education or forest practices compliance efforts might be needed to increase compliance with forest practices rules. The compliance monitoring program, with stakeholder input, determines which forest practices rule prescription types will be sampled each year and then estimates the number of samples required for statistical precision. This number of samples is then visited by the compliance monitoring field team for each of the forest practices rule prescription types.

Some forest practices rules are monitored annually and are referred to as the *standard sample*. In addition, certain rule groups (or prescription types) are monitored periodically and these are known as an *emphasis sample*. The standard sample monitors the following rules:

- Riparian protection (WAC 222-30-021 and WAC 222-30-022)
- Wetland protection (WAC 222-30-020(7) and WAC 222-24-015)
- Road construction, maintenance, and abandonment (WAC 222-24)
- Haul routes for sediment delivery (WAC 222-24)

In addition, the physical criteria of waters (i.e. stream width, stream gradient, etc.) are observed to estimate the number of occurrences where water types recorded on forest practices applications are different than what is observed on-the-ground.

9.2 History of Compliance Monitoring Program Design

2006 – A statewide working group led by DNR completed a compliance monitoring program design focusing on RMZ Forest Practices rules for all typed waters and road activities. The program design also included a detailed protocol for field assessments, field form revisions, and data collection templates. A pilot sampling effort was completed.

2008 – The Board recommended technical review of the program design. Five reviewers were selected that had operational monitoring experience and the report results were presented to the Board in February of 2008.

2008 – In response to the 2008 review, four significant changes to sampling were implemented for 2008-2009.

1. A protocol was added to capture observed differences between water type classification at the time of application approval and at the time of the compliance review.
2. Compliance with the rules as they are applied on the ground is assessed in addition to compliance with what was stated on the approved application.
3. The Forest Practices Application selection strategy was modified to sample each DNR region proportional to their representation in the entire population of applications statewide. This was to assure representation of each region in the sample.
4. DNR contracted with a professional statistician to review and approve the program design.

2011 – An annual report prior to the biennial report became a required element of the program.

2012 – The Compliance Monitoring Program made significant changes in the sample design to increase confidence in statistical estimates for each prescription type observed. Previously, the design was based on a random selection of forest practices applications stratified by the proportion of the population found in each DNR region. The sample size for each prescription type was dependent on what prescription types were observed on the selected forest practices applications. Beginning in 2012, the sample design randomly selected instances of each sampled

prescription type occurring in the population. An estimated sample size was calculated for each prescription type which met a desired confidence interval for a biennium sample. This change in selection design allowed for some control in the level of statistical confidence in results and provided a larger information set to help determine causes of deviation from the rules. It also added flexibility in the future to add or remove different prescription types from the sample as needed while still providing the desired confidence intervals for each prescription type.

This change instituted in 2012 was designed to improve the confidence of the compliance estimates for the less frequently occurring prescription types. The design included using a finite population correction factor to estimate the sample size needed to provide a $\pm$ 6% confidence interval (CI) for all prescription types assessed. The $\pm$ 6% CI was selected because it was perceived to be the best precision achievable within the program budget. As a result, the 2012-2013 biennium sample saw a modest improvement in confidence but the implementation cost was too high to sustain.

2014 - The Compliance Monitoring Program made significant analytical study design modifications to increase precision in statistical estimates for each prescription type observed. The updated study design divides the number of compliant rules by the number of total sampled rules within each prescription type, resulting in an average compliance rate by prescription. This change increases statistical precision in results and provides more information to help determine causes of noncompliance associated with rule interpretation and implementation. The modified design adds flexibility for future sampling to add or remove different prescription types from the sample as needed, while still providing the desired confidence intervals for each prescription type. Additionally, the No Inner Zone Harvest prescription, and No Outer Zone Harvest prescription have been combined into one sampled prescription.

The cluster analysis method has distinct advantages:

- The method requires a smaller sample of FPAs which allows more flexibility for possible emphasis samples or sampling upland prescriptions.
- The revised method observes the same prescriptions assessed in the 2012-2013 report, which has not resulted in substantial changes to field procedures.
- The program can use data from previous biennia and produce results using the cluster sampling ratio method which will allow a comprehensive comparison of compliance trends.
- This method benefits the program in detecting the specific rules or guidance that will require additional clarification and training. This could also inform the adaptive management program in regard to effectiveness monitoring studies that could be engaged by the Cooperative Monitoring Evaluation and Research Committee.

Each analysis method provides a different metric which are not directly comparable with each other. However, the change from binomial ratio analysis will still allow for analysis of past data using the cluster sampling ratio method because past data can be translated into the same

method. It is the intention of the Compliance Monitoring Program to analyze previous biennia data using the cluster analysis method and present the results in the 2014/ 2015 biennium compliance monitoring report.

9.3 Compliance Monitoring Program Reports and Findings

In addition to the biennial reports produced by the Compliance Monitoring Program, in 2011, the Commissioner of Public Lands requested an annual report in the intervening years. The 2012 Interim Report was the first to be written and can be found on the compliance monitoring website with all other CMP reports. The *2014 Interim Forest Practices Compliance Monitoring Report* was published in July 2015. While previous biennial reports summarized results for two-year periods in which randomly selected and approved forest practices applications were assessed for compliance with the forest practices rules, the interim reports describe compliance patterns detected during the first year of the biennial sample cycle. Because interim reports only represent one year of the required two years of data needed for precise estimates, conclusions cannot be made based on the data presented in these interim reports.

2014 Interim Report

During the 2014 field seasons, data was collected for only the standard sample prescriptions because there were no planned emphasis samples. Inferential conclusions are not drawn from the data collected for the interim report because the interim report only covers the first year of a biennial data collection process.

Riparian Prescription Standard Sample Findings

2014 Riparian Prescription Standard Sample Findings

Riparian Prescription type	Percent (%)Compliant	Number Observed
Statewide Type F or S No Outer Zone Harvest	92%	10
Statewide Type Np Activities	98%	14
Statewide Type Ns Activities	96%	14
Statewide Type A&B Wetlands	98%	14
Statewide Forested Wetlands	94%	9
Western WA Desired Future Condition 1	94%	8
Western WA Desired Future Condition 2	97%	6

Statewide Water Typing Findings

In the initial years of compliance monitoring, compliance monitoring field team observations indicated that at times water types observed on-the-ground did not match water type classifications provided on submitted and approved forest practices applications. This led to a concern regarding consistency and accuracy of water type information on forest practices

applications because the width and length of riparian buffers required under forest practices rules are directly linked to water type. Stream and wetland type classification is a fundamental aspect of determining which forest practices rules apply to forest management activities taking place adjacent to typed water.

During the 2014 season, the Compliance Monitoring Program evaluated 51 riparian related prescriptions involving typed water or wetlands. The number of typed waters and wetlands that were accurately typed was 39 or 76% of the total observed. The number of typed waters or wetlands where the compliance monitoring field team found discrepancies was 12 or 24% of the total observed. The inconsistencies occurred when typed water was under-classified on the forest practices application (i.e. the forest practices application depicts a Type Np water that is found to actually be a Type F stream); or over-classified (i.e. the forest practices application depicts a Type F water that after observation is actually a Type Np stream); or indeterminate (i.e. not enough information is available to accurately make a water type determination).

The number of waters under-classified was 4, or 7.8% of the 51 observed waters or wetlands. This means that 7.8% of the observed waters or wetlands received less protection than provided by rule due to the misclassification error. The number of waters or wetlands over-classified was 5, or 9.8% of the 51 observations. This means that 9.8 % of the observed waters or wetlands received more protection than required by rule. The number of waters or wetlands indeterminate was 3, or 5.8% of the 51 observations. This means that 5.8% of the observed waters or wetlands could not be typed by the Compliance Monitoring field team. Indeterminate observations are the result of physical impediments that preclude field staff from adequately assessing water type, or the indicated water typing break is physically located on another landowner's property.

Roads and Haul Routes Findings

In 2014, road construction and abandonment activities were assessed as compliant on 96% of the 6 FPAs where the road construction or abandonment was sampled.

The rate of compliance for haul routes was 94%, indicating that 94% of the Haul Route distance evaluated had either no observable sediment delivery, or de minimus sediment delivery to live water. Twenty haul routes were sampled.

9.4 Forest Practices Program Changes Based on Compliance Monitoring Program Feedback

One of the primary goals of the Compliance Monitoring Program is to provide feedback from compliance monitoring for the purposes of improving compliance with the forest practices rules. Following are some of the changes made in 2014 to address issues identified as a result of compliance monitoring:

Several rule and Board Manual updates are currently in process as a result of the 2012–2013 Compliance Monitoring Program biennium report. The Board Manual chapters include Chapter 7 Guidelines for RMZ and Chapter 16 Guidelines for Evaluating Potentially unstable Sloes and

Landforms. Leave tree, DFC, and RMZ length rule and Board Manual clarifications are currently under review and will be completed by 2016.

9.5 Future Plans for the Compliance Monitoring Program

With the addition of Forest Practices Hydraulic Projects to DNR Forest Practices Applications, the Compliance Monitoring Program will be developing sampling methodology to determine their compliance rate. The Compliance Monitoring Program will also develop sampling methodology for additional prescriptions and emphasis samples.

9.6 Funding

On an ongoing basis, the Forest Practices Program actively seeks state funding from the legislature and support from the program's partners to effectively implement the Compliance Monitoring Program. DNR has received funds from the Legislature since 2005 that supports at least one full-time staff each from the Department of Ecology and the Department of Fish and Wildlife to work with DNR in the Compliance Monitoring Program. This funding was continued in the 2013-2015 legislative appropriation.

10. Training/Information/Education

10.1 Introduction

Training is a key element to successful implementation of, and compliance with the Forest Practices Rules — some of the most comprehensive and function-based rules in the nation. Forest Practices Rules require DNR to "conduct a continuing program of orientation and training, relating to forest practices and rules thereof, pursuant to RCW 76.09.250" (WAC 222-08-140). DNR conducts ongoing training to educate internal agency staff, forest landowners, and staff from cooperating agencies and organizations on implementation of forest practices rules.

There are four major venues in which the Forest Practices Program provides training:

- Forest Practices Program training;
- Subject-based training;
- Region staff provided training; and
- Washington Contract Loggers Association (WCLA) training.

10.2 Status of Forest Practices Training Programs

The Forest Practices Program training manager provides oversight for forest practices specific training for staff, stakeholders, and landowners. Training included such subjects as unstable slopes, wetlands, forest practices hydraulic project compliance, and rule implementation on an as-needed basis. Training during this reporting period also focused on processing and complying forest practices hydraulic projects, a relatively new program for DNR (as of January 2014).

The training program places a heavy emphasis on developing training about new rule implementation and continuing education on current forest practices rules. Results from both field compliance and enforcement visits as part of the daily work of Forest Practices foresters, and the Compliance Monitoring Program help direct a comprehensive training program for DNR staff, landowners, and other stakeholders.

Forest Practices Program Training

A new training program (see description below in "subject based training") was developed this year addressing Forest Practices hydraulic project compliance. This major training effort was presented to DNR region staff in the spring of 2015.

Subject based training sessions are provided for complex subjects that require larger blocks of time such as this year's hydraulic project compliance training. Region staff trained during subject-based training sessions share the information from class with landowners and other stakeholders at region TFW meetings.

Forest Practices' staff continues to receive focused training sessions (forest practices program training) during scheduled program meetings. These trainings typically take place during

regularly scheduled forest practices Operations meetings. The meetings are held four times a year with the purpose of division and region staff sharing information and addressing program concerns. Training topics this year included hydraulic projects, stream typing, FPRAM (Forest Practices Application Mapping Tool) and state environmental policy act (SEPA) information. After these short duration training opportunities, the participants share the information they learn with other program staff and stakeholders as appropriate.

Subject Based Training

Forest Practices Hydraulic Project (FPHP) Compliance

The forest practices division and region staff designed and instructed a 3-day training session addressing FPHP compliance. Three trainings were presented statewide (North Bend, Chehalis, and Colville) to Forest Practices Program field and office staff. The training was designed to address both the office intake processing and the field compliance components related to culvert installation/removal and bridge installation/removal. The training focused on evaluating the structures for fish passage, suitable erosion control and structural integrity.

The 3-day training included one day of classroom presentations and 2 days of field exercises to review and evaluate various hydraulic projects. The agenda includes the following topics:

- Understanding common terminology and definitions used for evaluating FPAs with hydraulic projects,
- Purpose of the pre-FPA site visit with the landowner/operator,
- Site assessment, common designs and field evaluations of culvert and bridge installations,
- Components of a complete FPA and FPHP plan, and
- Assessing bridge and culvert removals.

In support of the training, an FPHP compliance field guide was developed as a tool for forest practices foresters who review Forest Practices hydraulic projects. The focus of the guide is to address the key information necessary to conduct proper compliance for culvert installation, bridge installation, and removal of a crossing structure.
– 90 people attended the training.

Compliance Monitoring

The Compliance Monitoring Program provides annual training for staff from DNR, Department of Ecology, WDFW and tribal field staff who participate in onsite review of completed forest practices applications. The one-day classroom session held in March 2015 focused on the protocols used to collect compliance monitoring data. Protocols, which are updated periodically to reflect design changes, are reviewed to ensure understanding of procedures and their purpose. Additional field coaching and on-the-job training is done using experienced staff to promote consistency in observations by new program participants.
– 32 people attended the training.

Information Technology
On June 30, 2015, the Forest Practices Division and the Information Technology Division replaced two ArcIMS GIS mapping tools with modern ArcServer applications. FPARS was replaced with the Forest Practices Application Mapping Tool (FPAMT) and the Forest Practices Risk Assessment Tool (FPRAT) was replaced with Forest Practices Risk Assessment Mapping (FPRAM). As part of the roll out of these new applications, an overview and demonstration of each was given at the June 2015 quarterly program meeting. FPAMT and FPRAM trainings and user support will continue throughout the fiscal year.
– 35 people attended these sessions

Unstable Slope
The demand for Unstable Slopes training was very high this year. Two Unstable Slopes trainings were provided this year in May and June, in Forks and Colville. The target audience for the course was DNR program staff, agency stakeholders, landowners, and consultants. The objectives of the two-day course is to improve the ability to recognize unstable slopes and landforms, improve consistency in recognition of these features, and identify when a specialist is needed for further consultation. Of the 33 people who attended the training this year, approximately half of the participants were WA DNR employees, the others comprised forestry consultants and stakeholders. Multiple courses are planned for South Puget Sound Region next year to help meet demand.
– 33 attended the training

Forest Practices Wetland Training
Two Wetland Identification trainings were provided this year for program staff, landowners and staff from cooperating agencies. Classes consist of identifying wetland vegetation for the specific region in which the training is conducted. Subjects covered in the classroom include wetland hydrology, soils, vegetation, and mitigation. Labs are conducted to teach how to identify soil properties and plant associations. Field exercises cover wetland identification and delineation.
– 36 people attended the training.

Small Forest Landowner Training
Small forest landowner office provided a variety of information outreach opportunities to small forest landowners around the state. Topics included Family Forest Fish Passage Program, Riparian Easement Program, wildlife habitat, forest excise tax, and forest land management information. (See Small Forest Landowner Office chapter for more information).

Forest Practices Training to Surface Water System Managers
DNR forest practices and Department of Ecology staff in partnership with Department of Health's Office of Drinking Water and the University of Washington's School of Public Health participated in a one-day training session in December 2015 that included presentations addressing the protection of streams and other water bodies within the forested watershed. Participants included Department of Health staff, and water system owners, managers, and operators. DNR provided information on the forest practices rules related to water quality (water

typing, riparian harvest, road construction and maintenance, unstable slopes, and chemical applications); an overview of the rule-making process; and a tutorial on the FPARS (Forest Practices Application Review System) – what it is, how it works, and how to become a subscriber.
– 60 people attended the training

Training by Region/Program Staff
DNR forest practices region staff generally delivers both statewide and region-specific training. In addition, each region office holds regular TFW "cooperator" meetings for program participants to communicate changes in forest practices rules, rule implementation or application processing. Participants are invited and encouraged to share information and presentations relevant to the natural resource environment. Cooperator meetings are an important mechanism to assure fair and uniform application of requirements for forest practices within DNR's six statewide regions. Region staff also organizes informal meetings where technical or scientific information is presented to keep field practitioners informed about recent research findings.

Regions completed or sponsored many training presentations and meetings during the reporting period. The topics varied widely and included, but were not limited to: compliance monitoring results, water type modifications, road maintenance plans, hydraulic projects, alternate plans, and general forest practices rule topics.

Washington Contract Logger Association Training
DNR forest practices staff taught select classes in the two sessions offered by the Washington Contract Logger Association (WCLA). WCLA conducts a four-day training course, which includes one day of Forest Practices Rules training and one day of forest silviculture and ecology for operators seeking WCLA Master Logger certification. Forest Practices program staff and staff from other agencies (WDFW and Ecology) cover water typing, riparian and wetland management zones, cultural resources, road maintenance, hydraulic projects, and general information regarding the Forest Practices Application/Notification process.
– 124 WCLA members attended the training

11. Road Maintenance and Abandonment Planning for Large Forest Landowners

11.1 Introduction

Forest Practices Rules include a Road Maintenance and Abandonment Program to help prevent sediment and hydrology-related impacts to public resources such as fish and water quality and to fix fish passage barriers. The Road Maintenance and Abandonment Plan (RMAP) rules require large forest landowners to plan and schedule all of the work needed on their lands necessary to improve and maintain their forest roads to meet new standards specified in upgraded chapter 222-24 WAC. In an effort to minimize the economic hardship on small forest landowners, the 2003 Washington State Legislature passed an RMAP bill (HB1095) that modified the definition of "small forest landowner" and clarified how the RMAP requirements applied to them. Small forest landowners have the option to submit a "checklist" RMAP with each Forest Practices Application or Notification, rather than providing a plan for their entire ownership.

Large forest landowners were required to have all roads within their ownership covered under a DNR approved RMAP (WAC 222-24-051) by July 1, 2006 and to bring all roads into compliance with forest practices standards by October 31, 2016. 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) must also be included in the plan. Forest Practices Rules require large forest landowners to prioritize road maintenance and abandonment work based on a "worst first" principle — starting with road systems where improvements would produce the greatest benefit for public resources and schedule their RMAP work to be metered throughout the time period on an "even-flow" basis so as not to wait until the last few years to complete all the work. Within each plan, maintenance and abandonment work is prioritized as follows:

- Remove blockages to fish passage;
- Prevent or limit sediment delivery;
- Correct drainage or unstable side-cast in areas with evidence of instability that could adversely affect public resources or threaten public safety;
- Disconnect the road drainage from typed waters;
- Repair or maintain roads that run adjacent to streams; and
- Minimize road interception of surface and ground water.

Board Manual Section 3 *Guidelines for Forest Roads* explains requirements and processes in the RMAPs program.

11.2 Extension of RMAP Deadline

The Forest Practices Board (Board) amended WACs 222-24-050 and 222-24-051 to allow forest landowners to extend the deadline for completing the road work scheduled in their RMAPs

beyond October 31, 2016. The rule change allows for an extension of the deadline for up to five years, or until October 31, 2021. While landowners have made substantial progress in meeting their RMAP commitments, the Board adopted this rule amendment because of the impact of the 2008 economic downturn on forest landowners.

Landowners depend on the revenue from timber harvests to accomplish road improvements. On August 9, 2011, the Board adopted the RMAP extension process. During this reporting period, nineteen RMAP extensions have been requested by forest landowners and received approval. Many landowners waited to file for an extension that was closer to the RMAP extension request deadline (September 3, 2014) in order to have the most accurate accounting of remaining work. This brings the total to fifty-eight RMAPs that have approved extensions since rule adoption. RMAP extension requests were no longer accepted after September 3, 2014 (requests were approved by October 31, 2014).

11.3 Road Maintenance and Abandonment Plan Implementation

Following are three tables:

- *Statewide Road Maintenance and Abandonment Plan Accomplishment Report 2001-2014*;
- *Statewide Cumulative Road Maintenance and Abandonment Plan Accomplishment Report*; and
- *Fish Passage Barrier Information for Large Landowners*

These tables detail the progress that has been made by forest landowners from July 2001 until December 2014. The information provided is derived from data supplied by landowners as part of their annual accomplishment review. Following the *Statewide Road Maintenance and Abandonment Plan Accomplishment Report 2001-2014* is a description of each reporting element. In addition, several of the descriptions include reasons why some reporting element numbers fluctuate as well as providing more in-depth information on why earlier accomplishment reports differ from this report.

Statewide Road Maintenance and Abandonment Plan Accomplishment Report 2001-2014										
DNR Region	**Number of approved RMAPs**	**Miles of forest road assessed**	**Miles of forest road identified needing improvement***	**Miles of road improved**	**Miles of road abandonment**	**Miles of orphaned roads**	**Number of fish passage barriers identified**	**Number of fish passage barriers corrected**	**Miles of fish habitat opened**	**Total of RMAP checklists from small forest landowners**
Northeast	89	7,625	568	5,637	303	96	836	778	389	3,730
Northwest	27	4,464	696	3,272	1,237	712	538	429	142	1,747
Olympic	34	8,560	1,878	1,318	143	247	1,522	1,008	465	999
Pacific Cascade	74	19,890	3,641	11,297	732	316	3,090	2,545	1,895	3,653
South Puget Sound	27	5,945	798	1,302	511	190	872	529	258	940
Southeast	15	6,500	230	1,456	624	498	689	441	270	785
Statewide Totals	266	52,983	7,811	24,282	3,550	2,059	7,547	5,730	3,419	11,854

The content of this table is based upon data provided by landowners who are responsible for the facts and accuracy of the information presented herein.

The numbers in columns 1 and 2 can change based on changes in land ownership.

Note:*Beginning with the 2011 RMAP reporting cycle (January 1, 2011, to December 31, 2011), landowners provided a new data element — "*miles of forest road identified needing improvement"*— based on the definition below. The data was first incorporated in the 2012 *Forest Practices HCP Annual Report.*

Reporting Elements

During FY2014, a region boundary change occurred between South Puget Sound region, Pacific Cascade region and Olympic region. This change resulted in shifting of RMAPs and associated totals between the three regions.

Number of Approved RMAPs
The number of approved RMAPs represents those plans submitted predominantly by large forest landowners. Many large landowners have more than one plan. There are 12 small forest landowners that could have opted to submit a "checklist" RMAP, but have chosen (in writing) to continue to follow their pre-2003 submitted RMAP, or have decided to submit a plan as described in 222-24-0511(2). This does not include land previously owned by a large landowner covered under an approved RMAP, which has been sold to a small forest landowner who choses not to continue or implement an RMAP.

Previously, this number was reported as either:

1) ***Number of landowners*** having an approved RMAP (for example, 11 landowners within one region would equal 11 RMAPs), or
2) ***Number of approved RMAPs*** (for example, 11 landowners within one region, each having three separate RMAPs, would equal 33 RMAPs).

Beginning with the 2010 RMAP reporting cycle (compiled and reported the next spring), and thereafter, this number is reported as '***Number of approved RMAPs***'. The program chose this reporting strategy due to the importance of monitoring and tracking the number of approved plans rather than the number of landowners.

The number of approved RMAPs is dynamic in nature and can change over time. Large landowners may have one RMAP for large land holdings or multiple RMAPs covering several blocks within the large land holding. A landowner may choose to change their strategy on the number of RMAPs they manage. Property transactions can lead to an increase or decrease in the number of approved RMAPs. Small landowners that decide to discontinue their plan and obtain a checklist would result in a decrease of RMAPs reported. Another reduction in the number may be due to a large forest landowner's decision to discontinue or reduce the amount of harvest, and submit a request to be released from the program due to qualifying as a small forest landowner (WAC 222-16-010).

Some landowners that received extensions on specific land holdings requested a new RMAP number for accurate tracking purposes.

Miles of Forest Roads Assessed
Landowners arrived at this number by conducting an inventory and assessment of all forest roads contained within a specific RMAP. This number includes roads that meet Forest Practices Rule standards as well as those that need to be improved.

Miles of Forest Road Identified Needing Improvement
Implementing the definition as described below, *Miles of Road Improvement*, the data was partially completed (dependent upon each landowners RMAP accomplishment reporting date) and first reported in the 2012 Forest Practices HCP Annual Report. All landowners have now completed two full reporting cycles for the annual RMAP accomplishment report.

Miles of Road Improvement
For Road Maintenance and Abandonment Plan purposes, an improved road or road segment is defined as locations where actions have been taken to address issues associated with:

- Fish passage;
- Delivery of sediment to Typed waters;
- Existing or potential slope instability that could adversely affect public resources;
- Roads or ditch lines that intercept ground water; and
- Roads or ditches that deliver surface water to any Typed waters.

The improvements are to meet the current Forest Practices Rule requirements and are identified in the landowner plan, or problematic road conditions are subsequently discovered and actions are identified for inclusion within the time period associated with an approved RMAP.

Once a landowner identifies that a road or road segment is brought up to current rule standards, it is captured in that year's accomplishment report. Provided the DNR RMAP specialist concurs, the road no longer will be identified as an RMAP obligation; therefore, the road or road segment would not be included in subsequent reporting years for miles of road needing improvement. Over time, the "miles of forest road identified needing improvement" will decrease as the "miles of road improved" increases. All roads not under an RMAP obligation are subject to standard Forest Practices Rules found in Chapter 222-24 WAC.

Miles of Road Abandonment
The number of road abandonment miles includes those that have been reported under an approved Road Maintenance and Abandonment Plan as abandoned per WAC 222-24-052(3). Roads are not considered 'officially abandoned' until the DNR RMAP specialist or Forest Practices forester reviews the on-the-ground abandonment to ensure it meets the requirements. Reported road abandonment miles reflect some road miles that may not have been officially abandoned at the time this report was distributed.

Miles of Orphaned Roads
The number of miles of orphaned roads includes those that have been reported under an approved RMAP as orphaned. Inventory and assessment of orphaned roads will be used to help in the evaluation of the hazard-reduction statute and to determine the need for cost-share funding (RCW 76-09-300).

This information is challenging to track precisely due to the difficulty in locating orphaned roads on the landscape; they often are obscured by brush and forest cover and do not appear on any map. Some orphaned roads have been converted to active forest roads, some abandoned, and some may be scattered throughout the landscape with present status unknown.

Number of Fish Passage Barriers Identified
The total number of fish passage barriers includes those identified as part of an approved RMAP inventory.

In 2006, the revised water-type map was used as an additional tool to identify potential fish passage barriers. The total number of fish passage barriers will fluctuate over time, depending on when landowners verify on-the-ground physical characteristics and/or perform a protocol survey or other approved methodology for verifying fish presence or absence. In cases in which a stream type has been changed from 'Type F' to 'Type N'—therefore negating the landowners' obligation to remove fish passage barriers—sizing of the culvert will be assessed to ensure that it is able to pass a 100-year flood level event plus debris. Due to limited habitat gained, barriers also may be removed from the total number, if the structure was determined in consultation with Washington Department of Fish and Wildlife to be partially fish passable and sufficient to remain until the end of its functional life. Also, a barrier may be removed from the list if the structure was determined to play an important role in maintaining pond or wetland habitats; these decisions are made with stakeholder consultation.

Number of Fish Passage Barriers Corrected
The corrected number of fish passage barriers includes the total number that have been permanently removed or fixed with a fish-passable structure. Previously, this number included some streams that had been downgraded from a 'Type F' to a 'Type N', which did not meet the intent of this reporting element. Since the 2010 RMAP reporting cycle this number is reported as the number of actual fish passage barriers corrected.

Miles of Fish Habitat Opened
The 'miles of fish habitat opened' refers to stream habitat opened for fish use after the fish passage barrier has been removed or replaced. This number is an estimate, due to the inability to always measure stream length on the ground. The measurement often is based upon aerial photos or maps.

This number of miles of fish habitat opened may fluctuate depending on when, or whether or not, a stream type verification survey occurs. If there are no protocol surveys to pinpoint exact

breakpoints, this number is reflected by large forest landowner data or topographical information. It also is difficult for landowners to determine this number if the stream enters another ownership.

Number of Checklists Submitted by Small Landowners
The 'number of checklists' is the total submitted to the DNR regions by small forest landowners since the 2003 rule change. Small forest landowners may submit more than one RMAP Checklist.

Beginning in the 2007 RMAP reporting cycle and thereafter, checklists have been separated from the 'Number of Approved RMAPs' and tracked separately.

The following table, *Statewide Cumulative Road Maintenance and Abandonment Plan Accomplishment Report* displays the data cumulatively by year, rather than by DNR region.

Statewide Cumulative Road Maintenance and Abandonment Plan Accomplishment Report

Year	Number of Approved RMAPs & Submitted Checklists	**Total # of RMAP Checklists from Small Forest Land-owners	***Miles of Forest Road Identified Needing Improvement	Miles of Road Improved	Miles of Road Abandoned	Miles of Orphaned Roads	Miles of Habitat Opened	# of Fish Passage Barriers Corrected
2001-2002	4,066	---	---		645	502	52	46
2001-2003	5,530	---	---		1,007 / *362	1,246	175/ *123	355 / *309
2001-2004	7,401	---	---		1,587 / *580	1,944	647 / *472	1,217 / *908
2001-2005	8,419	---	---		1,856 / *269	2,107	775 / *128	1,363 / *146
2001-2006	9,950	---	---		2,068 / *212	2,313	982 / *207	1,819 / *456
****2001-2007**	107	8,121	---	13,140	2,153 / *85	2,293	1,221/*239	2,248 / *429
2001- 2008	130	8,628 / *506	---	15,019/ *1,879	2,431 / *278	2,305	1,448/*227	2,871 / *623
2001-2009	126	8,804 / *176	---	16,195/ *1,176	2,621/ *190	2,305	1,569/*121	3,141/ *270
2001-2010	262	9,187 / *383	---	18,475/ *2,280	2,915/ *294	2,333	1,772/*203	3,769/ *628
2001-2011	247	9,696/*509	7,413	18,738/ *263	3,090/*175	2,393	2,189/*417	4,258/*489
2001-2012	254	10,268/*572	7,568	20,026/*1,288	3,275/*185	2162	2659/*470	4,846/*588
2001-2013	263	10,971/*703	8,886	22,793/*2,767	3,417/*142	2,356	3,130/*471	5,298/*452
2001-2014	266	11,854/*883	7,811	24,282/*1,489	3,550/*134	2,059	3,419/*290	5,730/*432

***** Number represents the increase from the previous year's report.

****** Beginning in reporting year 2007 and thereafter, checklists have been separated from the 'Number of Approved RMAPs' and tracked separately.

*** This was a new reporting element beginning with the 2011 RMAP reporting cycle.

Note: Miles of Road Abandoned for 2001-2012 was changed to 3,275 miles (from 5,002 miles previously reported in the 2013 FPHCP Annual Report) due to an error in the 2012 data for NW Region. The number of miles of road abandoned in NW Region for 2001-2012 was 1,075 miles (not 2,801 miles as previously reported in the 2013 FPHCP Annual Report.

Fish Passage Barriers

In addition to the fish barrier information in the above tables, the following table, "*Fish Passage Barrier Information for Large Landowner*s" displays how many barriers have been repaired cumulatively since 2001; the total repaired in calendar year 2014, and the percent of total repaired as of December 31, 2014.

Fish Passage Barrier Information for Large Forest Landowners

DNR Region	Number of fish passage barriers identified*	Number of fish passage barriers corrected from 2001-2014	Number of fish passage barriers corrected in 2014	% of total fish passage barriers corrected as of 12/31/2014
Northeast	836	778	41	93%
Northwest	538	429	24	80%
Olympic	1,522	1,008	167	66%
Pacific Cascade	3,090	2,545	153	82%
South Puget Sound	872	529	35	61%
Southeast	689	441	12	64%
Totals	**7,547**	**5,730**	**432**	**76%**

*This number may fluctuate annually as water types are confirmed and/or modified.

11.4 Washington Department of Fish and Wildlife Efforts

Biologists from the Washington State Department of Fish and Wildlife (WDFW) provide an essential role in the review and implementation of RMAPs. WDFW biologists reviewed RMAPs and the associated forest practices hydraulic projects, and provided assistance to landowners and DNR to assure that project plans and designs would be successful and meet fish protection standards. Since integration of WDFW's hydraulic code into forest practices rules, WDFW is no longer able to track which FPHPs are specifically associated with RMAPs. However, most of the FPHPs pertaining to fish-bearing streams are related to roads. Therefore, the numbers of FPHPs reviewed in Chapter 4 should be a close estimate. From July 1, 2014, through June 30, 2015, WDFW biologists reviewed 1,399 FPHPs, which included 252 concurrence-required project reviews (some of the 144 FPAs requiring WDFW concurrence had multiple hydraulic projects) and 1,147 standard FPHPs.

12. Tribal Relations

12.1 Introduction

The federally recognized Indian Tribes in Washington State are key cooperators in the Forest Practices Program. The sovereign status of Tribal governments requires a government-to-government relationship between DNR and the Tribes. The Commissioner's Order on Tribal Relations serves as the department's overall tribal relations policy and commits the department to conduct relations with the Tribes as one government to another. DNR's Tribal Relations Liaison assists the department in maintaining good communications and collaborative efforts, building stronger working relationships with the Tribes.

The Forest Practices Board (Board), under the authority of Forest Practices Act chapter 76.09 RCW, adopts forest practices rules that foster cooperative relationships and agreements with affected Tribes. These rules direct DNR Forest Practices staff to notify and consult with affected Indian Tribes when developing and implementing many parts of the Forest Practices Program. (RCW 76.09.010, WAC 222-12-010). In the forest practices rules, "*affected Indian tribe means any federally recognized Indian tribe that requests in writing information from the department on forest practices applications and notification filed on specified areas*" (WAC 222-16-010).

Tribes in Washington—as well as some Tribes in Oregon and Idaho—currently participate in forest practices to varying degrees. Tribes are members of the Forest Practices Adaptive Management Program's Timber/Fish/Wildlife Policy Committee and Cooperative Monitoring, Evaluation, and Research (CMER) Committee. Tribes and tribal organizations participate side-by-side with landowners and natural resource agencies on the Timber/Fish/Wildlife Cultural Resources Roundtable. Tribes are members of DNR's Small Forest Landowner Advisory Committee.

Additionally, tribal members and their representatives work with staff from DNR's Forest Practices Program and other agencies and organizations to draft Forest Practices Rules and Board Manuals, review Forest Practices Applications, Notifications, and Alternate Plans, and provide technical expertise in DNR's interdisciplinary team reviews, water typing, and wetland typing. Tribes also work with those landowners who are interested in pre-application planning of their forest practices activities.

Chapter 12 provides information on two areas of Forest Practices work specific to Tribal relations.

- Section 12.2 provides an annual summary specific to landowner-Tribe meetings and process improvements regarding implementing and tracking of the forest practices rule in WAC 222-20-120, a Forest Practices HCP required reporting element.
- Section 12.3 provides an annual update on the work being conducted by the Board's Timber/Fish/Wildlife Cultural Resources Roundtable.

12.2 Landowner/Tribe Meetings and WAC 222-20-120 Updates

Background

This Forest Practices HCP reporting element reads "*landowner/tribal meetings and process improvements pursuant to WAC 222-20-120*". See Table 1.1 FPHCP Reporting Elements, "Administrative and Regulatory Program Updates" (open the link, scroll to page 11 (Introduction page 9)).

Forest Practices rule WAC 222-20-120 titled "*Notice of forest practices that may contain cultural resources to affected Indian tribes"* requires:

- DNR to notify Tribes of all proposed applications within the Tribe's designated area of interest and;
- The landowner to contact affected tribes who will determine if a meeting is required. When a meeting is required, landowners meet with the affected Tribe(s) when the forest practice activity area involves a cultural resource. In the rule's definitions, "*cultural resources means archaeological and historic sites and artifacts, and traditional religious, ceremonial and social uses and activities of affected Indian tribes."* (WAC 222-16-010).

Currently, all but one of the federally recognized Tribes in Washington has chosen and is signed-up to review Forest Practices Applications and Notifications, Multi-Year Permits, and Small Forest Landowner Long Term Applications. Several tribal organizations, the Northwest Indian Fisheries Commission, Skagit River Cooperative, and Upper Columbia United Tribes in Washington are also signed up to review Forest Practices Applications and Notifications.

Process

The Forest Practices Program continues to utilize its Forest Practices Risk Assessment Mapping tool (FPRAM) (previously Risk Assessment Tool) to review and appropriately classify proposed forest practices and implement WAC 222-20-120. FPRAM is the GIS-based interactive mapping and reporting tool that allows forest practices staff to see the geographic relationships between known environmental features and the location of proposed forest practices. FPRAM includes:

- Data from the Washington State Department of Archaeology and Historic Preservation;
- The 1893-1950 US Geological Service and Army Mapping Service maps for Washington State;
- Bureau of Land Management Government Land Office historical maps; and
- Tribal Cultural Resources Contacts (each Tribe's/Tribal organization's designated geographic area of interest for cultural resources and the name and contact information of their designated cultural resources contact).

The Forest Practices Program also continues to assist the state Department of Archaeology and Historic Preservation (DAHP) in maintaining an archaeological and historic sites database. Through an interagency agreement, DNR has provided specific funding to help DAHP retain a

staff position for database administration and Forest Practices Application and Notification review. For FY2015, DNR provided $35,000 for half of this DAHP staff position.

Landowner/Tribe Meetings
During this reporting period (July 1, 2014, to June 30, 2015), there were 36 Forest Practices Applications that required a landowner-Tribe meeting. All 36 successfully fulfilled the meeting requirement.

WAC 222-20-120 Updates
During FY2015, WAC 222-20-120 interpretations and DNR FPA conditioning authority was the key topic worked on by the T/F/W Cultural Resources Roundtable (Roundtable).

As reported last fiscal year, the Yakama Nation had voiced concerns about their requests to DNR to condition FPAs to follow the Yakama-landowner agreed to protection plans. As a result ongoing dialog has been established at the TFW Cultural Resources Roundtable to understand DNR's legal authority to condition FPAs and the communication between DNR and the Roundtable.

In Section 12.3 below, see **Priority Issue Work** for a summary of the Roundtable's work on this priority issue.

12.3 Update on Timber/Fish/Wildlife Cultural Resources Roundtable

Background – Origin, Charter, and Participants
The Timber/Fish/Wildlife Cultural Resources Roundtable originated as the Timber/Fish/Wildlife Cultural Committee (Committee) of the 1987 Timber/Fish/Wildlife collaboration. The Cultural Committee continued to be active in various cultural resources endeavors. In 2001, the Board reconvened the Committee to work on the cultural resources commitments in the Forests and Fish Report (see below). Then in 2011, the Forest Practices Board formally accepted the Roundtable's charter which formally changed the committee's name to Timber/Fish/Wildlife Cultural Resources Roundtable (Roundtable).

The Roundtable's purpose, as stated in its charter, is to:

- "foster cooperative protection and management of cultural resources as envisioned in the *Cultural Resources Protection and Management Plan*, and
- "facilitate the identification, protection, and management of cultural resources that are significant to the history and cultures of the people of Washington State, and which are located on the state's non-federal forest lands".

The Roundtable serves the Board's needs by providing insight on cultural resources issues affecting forest practices, providing consensus rule making recommendations for the Board's consideration, and as required by WAC 222-08-160, annually reporting on behalf of the department on how implementation of the *Cultural Resources Protection and Management Plan*

is working. This plan is described below. Accordingly, the Board's website includes a TFW Cultural Resources Roundtable web page. Web page materials include meeting agendas and meeting notes, the *Cultural Resources Protection and Management Plan*, the Roundtable's charter, and cultural resources educational information.

Roundtable active participants vary depending on the topics being addressed. Roundtable participants have included the following Tribes, landowners, and state natural resource agencies:

- Puyallup Tribe of Indians
- Confederated Tribes and Bands of the Yakama Nation
- Quinault Indian Nation
- Cowlitz Indian Tribe
- Jamestown S'Klallam Tribe
- Spokane Tribe of Indians
- Squaxin Island Tribe
- Upper Columbia United Tribes
- Washington Forest Protection Association
- Hancock Resource Management
- Green Diamond Resource Company
- Washington Farm Forestry Association
- Department of Archaeology and Historic Preservation
- DNR Forest Practices Division
- DNR Forest Resources Division

Other interested Tribes, organizations, and persons are kept informed of the Roundtable's work through meeting agendas and meeting notes sent by the Roundtable via email. About 60 Tribal, landowner, and state agency representatives participate in the Roundtable or receive ongoing mailings from the Roundtable.

Background – Cultural Resources Protection and Management Plan

The *Cultural Resources Protection and Management Plan* is a voluntary cooperative approach towards the protection of cultural resources on non-federal forest land in Washington. This approach is based on mutual respect and an appreciation of tribal and non-tribal culture and history.

The *Cultural Resources Protection and Management Plan* was born of the two commitments in the *Forests and Fish Report* specific to cultural resources. Appendix G of the report specifically commits to cooperatively developing a watershed analysis cultural resources module. Appendix O of the report commits to completing a cultural resources plan to enhance cooperative relationships between landowners and Tribes. In 2001, the Forest Practices Board asked the Roundtable (then Committee) to collaboratively develop a multi-caucus proposal to address these Forests and Fish commitments.

The Roundtable (then Committee) presented its consensus *Cultural Resources Protection and Management Plan* to the Board in 2003. The Board accepted the plan as fulfillment of both *Forests and Fish Report* commitments, as the plan's appendices included the proposed watershed analysis cultural resources module. The appendices also included proposed rules to implement the module, a proposed cultural resources question and instructions for Forest Practices Applications and Notifications, and a suggested process for implementing WAC 222-20-120. In May 2005, after completing the rule making process, the Board formally approved the watershed analysis cultural resources module for inclusion in Board Manual Section 11, *Standard Methodology for Conducting Watershed Analysis* as Appendix J, and adopted the rules in chapter 222-22 WAC implementing the module. The Forest Practices HCP (Washington DNR, 2005) incorporates the *Cultural Resources Protection and Management Plan* as Appendix I.

The *Cultural Resources Protection and Management Plan* is a "living" document. This means the plan is open to updates and changes to reflect progress and completion of tasks, as well as changes in priorities and direction of the plan. Therefore, updates are added occasionally by the Roundtable.

Priority Issue Work: WAC 222-20-120 Interpretations and DNR Forest Practices Application Conditioning Authority

The key topic worked on by the T/F/W Cultural Resources Roundtable (Roundtable) during FY2015 was WAC 222-20-120 interpretations and DNR Forest Practices Application (FPA) conditioning authority.

As reported in the Cultural Resources Roundtable report to the Board dated September 4, 2014, "at the March 2014 Roundtable meeting, the Yakama Nation had voiced concerns about recent DNR responses to their requests to condition FPAs to follow the Yakama-landowner agreed to protection plans, stating DNR no longer conditions FPAs according to WAC 222-20-120(4). DNR's FPA conditioning practices raised questions about the scope of DNR's legal authority to condition FPAs and communication between DNR and the Roundtable". During FY2015 this situation significantly affected working relationships within the Roundtable and consumed most of the Roundtable's time.

In early 2015, the Roundtable resumed monthly meetings to fully concentrate on this issue. The major activities/events are summarized. From March to the Board's May 2015 meeting, the following occurred:

- Correspondence between the Confederated Tribes and Bands of the Yakama Nation, the Department of Natural Resources (in link below to Roundtable's annual report under "Ongoing Responsibilities Work", first bullet").
- Exchange of letters between the Confederated Tribes of the Umatilla Indian Reservation and the Commissioner of Public Lands (Chair of the Forest Practices Board) (in link

below to Roundtable's annual report under "Ongoing Responsibilities Work", first bullet").

- Presentation of flow charts by DNR and DAHP staff, at the May 2015 Roundtable meeting, describing the regulatory processes related to forest practices applications and cultural resources in each agency (in link below to Roundtable's annual report under "Ongoing Responsibilities Work", first bullet").
- Request by the co-chairs at the Board's May 2015 meeting for the Forest Practices Board to fund a facilitator and note-taker. This request was made to assist the Roundtable to restore discussions.

On May 12, 2015, the Board unanimously adopted the following motion:
Aaron Everett moved the Forest Practices Board recommend and request DNR to allocate funding from the Forests & Fish Support Account to retain professional facilitation and note taking services at TFW Cultural Resources Roundtable meetings.
He further moved the Forest Practice Board direct the TFW Cultural Resources Roundtable to:

- *Continue work to resolve the FPA conditioning issues identified in the "draft discussion strategy" dated April 21, 2015; by*
  - *Understanding the extent of DNR's conditioning authority, and the role of the Department of Archaeology and Historic Preservation in the FPA approval process;*
  - *Expanding the scope of the annual survey to collect more complete information on how the current system of cultural resource protection is working;*
  - *Reporting to the Board on its progress in a standing agenda item at each quarterly meeting; and*
- *At the August 2015 meeting, the report will include a strategy and a timeline for reaching resolution*

He further moved the Board request a short public memo from the Board's counsel on the extent and nature of DNR conditioning authority for cultural resource protection.

At the June Roundtable meeting, the Senior Council for the Natural Resources Division of the Office of the Attorney General presented information to the Roundtable related to the Forest Practices Application conditioning authorities of the Board and DNR (*Open Primer on Forest Practices Act Conditioning Authority, June 10, 2015*) (in link below to Roundtable's annual report under "Ongoing Responsibilities Work", first bullet").

The Roundtable's work on this priority issue continues into fiscal year 2016.

Ongoing Responsibilities Work
The Roundtable continues to implement commitments in the *Cultural Resources Protection and Management Plan*. For FY2015, the Roundtable fulfilled the following ongoing responsibilities:

- On behalf of DNR, the Roundtable annually reported to the Forest Practices Board on implementation of the *Cultural Resources Protection and Management Plan*. The report provides the Board with continued evaluation of how this voluntary cooperative approach

is working, per WAC 222-08-160 (1), including the results of annual surveys distributed to Tribes, forest landowners, and state agency staff involved in forest practices. The Roundtable's annual reports to the Board are in August so the Board can utilize this information for their November planning meetings. See the Roundtable's FY2015 report at August 2015 Board Meeting Materials (scroll to pages 197-228 for the July 22, 2015, "FY 2015 Annual Report of the Timber/Fish/Wildlife Cultural Resources Roundtable"). Attachments of the annual report are the:

1. Roundtable's quarterly Action Items list,
2. March 23, 2015, letter from the Confederated Tribes and Bands of the Yakama Nation to the Board,
3. August 29, 2014, letter from the Confederated Tribes of the Umatilla Indian Reservation to the Board,
4. October 23, 2014, response from the Commissioner of Public Lands to the Confederated Tribes of the Umatilla Reservation,
5. DNR's and DAHP's flowcharts on the FPA process as presented at Roundtable's May 2015 meeting, and
6. June 10, 2015, "Open Primer on Forest Practices Act Conditioning Authority" from the Office of the Attorney General to the Board.

- As a part of the staff reports the Board receives at each of its regular quarterly meetings, the Roundtable provided its four quarterly reports in the form of its work plan, titled "*T/F/W Cultural Resources Roundtable Action Items*". See Board meeting materials for November 2014, February 2015, and May 2015. The August 2015 quarterly report was combined with the FY 2015 annual report (see above, first bullet).
- The Roundtable's cultural resources educational efforts for the state's small forest landowners—also a commitment in the *Cultural Resources Protection and Management Plan*—continues through the assistance of the Washington State University Extension Service. Numerous workshops were conducted around the state, some drawing a hundred or more attendees.

13. Washington State Legislature

In 1974, the Washington State Legislature passed the Forest Practices Act declaring that:

> "forest land resources are among the most valuable of all resources in the state; that a viable forest products industry is of prime importance to the state's economy; that it is in the public interest for public and private commercial forestlands to be managed consistent with sound policies of natural resource protection; that coincident with maintenance of a viable forest products industry, it is important to afford protection to forest soils, fisheries, wildlife, water quantity and quality, air quality, recreation, and scenic beauty" (RCW 76.09.010).

The Act was the State's first comprehensive law addressing the impacts of forest practices on the environment. The Act also created the Forest Practices Board, which sets the specific standards that are the basis for the Forest Practices Program.

Each year, DNR monitors laws being passed by the Legislature for those that could impact the Forest Practices Program. There were no new laws that would result in a change in protection of habitat for the species covered in the Forest Practices HCP. However, there was one bill passed into law that has a positive effect on the Forest Practices Program. Senate Bill 5088 (geological hazards assessment) was passed into law which establishes an efficient and cost-effective process for acquiring and analyzing LiDAR data to be made publically available by amending RCW 43.92.025. Having a state agency program for LiDAR will help improve accessibility to critical information, reduce acquisition costs, and make the state eligible for federal grants that will further assist with identifying hazardous areas. When the LiDAR becomes available it will provide more data for unstable slopes review for forest practices applications. Senate Bill 5088 resulted in 7 new positions in the DNR geology program.

14. Information Technology

Information Technology-Based Tools Update

Information technology-based tools provide significant support for the administration of the Forest Practices Program. These tools include information systems, such as the Forest Practices Application Review System (FPARS), Forest Practices Enforcement Tracking System (FPETS), Forest Practices Application and Mapping Tool (FPAMT) and the Forest Practices Risk Assessment Mapping (FPRAM) application, as well as discrete data sets, such as the DNR Hydrography Geographic Information System (GIS) data layer that forms the basis of the water typing system. Within DNR, the Forest Practices Division works closely with the Information Technology Division to develop and maintain these information technology tools.

Forest Practices Application Review System

The Forest Practices Application Review System streamlines the processing of Forest Practice Applications and provides the public with the ability to review proposed forest practices activities. It makes use of the internet, document imaging and management technology, interactive geographic information system (GIS) technology, and the Oracle database system to collect Forest Practices Application/Notification information, and distribute them for regulatory and public review. FPARS also supports risk assessments of proposed forest practices activities, and archiving Forest Practices Applications/Notifications.

Between July 1, 2014, and June 30, 2015, there were 4,876 FPAs received or renewed and entered into FPARS. Currently there are 1,194 reviewers receiving email notification.

On June 30, 2014, the Forest Practices Division and the Information Technology Division replaced the FPARS ArcIMS GIS mapping tool with a modern ArcServer application called Forest Practices Application Mapping Tool (FPAMT). FPAMT replaces only the mapping functionality of FPARS all other functionality, such as tabular data entry and notifications, are unchanged.

There were no formal training events this fiscal year on the FPARS system. As part of the role out of the new FPAMT mapping application an overview and demonstration of the system was given at the Forest Practices June 17, 2015, quarterly division meeting. FPAMT trainings and user support will continue throughout fiscal year 2016.

Forest Practices Enforcement Tracking System

The Forest Practices Enforcement Tracking System (FPETS) provides the ability for Region Forest Practices staff and Forest Practices Division staff to enter and report on data related to enforcement actions, civil penalties and appeals. It makes use of the internet, document imaging and management technology, and the Oracle database system to collect Forest Practices enforcement information.

By capturing enforcement data in a common database, FPETS streamlines data input by removing redundancies and enables automating reports in the enforcement tracking process. FPETS also includes a robust search tool that allows users to query on and search the FPETS database for information related to conference notes, enforcement actions, civil penalties and appeals.

Between July 1, 2014, and June 30, 2015, there were 329 Informal Conference Notes, five Notices of Conversion to Non-forestry Use and one-hundred and six Notices to Comply entered into FPETS.

Forest Practices Risk Assessment Mapping

On June 30, 2015 the Forest Practices Division and the Information Technology Division replaced the Forest Practices Risk Assessment Tool (FPRAT) with the Forest Practices Risk Assessment Mapping (FPRAM) application. FPRAM is a modern ArcServer application that replaces the GIS data viewing functionality of FPRAT. This interactive mapping and reporting tool is available on DNR's web pages. It gives DNR Forest Practices Program staff, in both the division and the region offices, access to GIS data related to the implementation of the Forest Practices Rules. It allows staff to see and review the geographic relationships between environmental features, including streams, potential landslide areas, archaeological sites, northern spotted owl habitat, and the locations of proposed forest practice activities. There currently are more than 100 map layers that can be displayed or queried. Training and user support for FPRAM will continue throughout fiscal year 2016.

The DNR Hydrography Data Layer, Water Type Updates and Transportation Data Layer

The Forest Practices GIS section updates DNR's hydrography data layer with water typing information received on Water Type Modification Forms (WTMF). These updates are based on direct observation in the field by DNR personnel, forest landowners, fish survey contractors, and others.

During the reporting year, DNR GIS staff entered approximately 6,000 updates into the Hydrography data set based on 720 Water Type Modification Forms. As of June 30, 2015, the WTMF backlog was 365.

To support the deployment and adoption of our newly developed hydrography data editing tools in December 2014 and January 2015 we conducted onsite training for all Forest Practices hydrography GIS editors. We conducted hands-on, task-oriented training using actual WTMFs. The Forest Practices GIS section continues to coordinate and support the regional hydrography editors.

In April 2015 we completed a six-month project to convert Forest Practices Transportation data from the Arc/INFO coverage model to the ArcGIS geodatabase model. In the process, we greatly improved the editing tools and the quality control process. We anticipate that these changes will decrease the time for each road abandonment update and increase the overall data integrity of the

database. In April and May 2015 we conducted onsite training for Forest Practices GIS editors who work with the Forest Practices transportation data and editing system.

Road Maintenance and Abandonment Plan Point Data Set

The Road Maintenance and Abandonment Plan Points dataset is compiled from individual RMAP Annual Accomplishment and Planning Reports and other sources into a statewide data system. This dataset is a work in progress. Not all points have been entered or updated. They represent the information that we have compiled to date. We continue to work to make the dataset as complete as possible. Revised datasets are posted periodically to the Forest Practices RMAP Program Stakeholder Review Site.

Within the previous reporting period, we revised the Forest Practices RMAP Points data set to exclude road maintenance points associated with small forest land owners, counties and federal agencies. This was an effort to improve our data set, by separating out only those points that are associated with an RMAP. These points outside of DNR Forest Practices' jurisdiction were removed from the RMAP Points dataset and moved to their own feature classes for data management and organizational purposes.

Also within this reporting period, a new GIS database was created for the Small Forest Landowner program. This database is informed by a variety of sources including the regional RMAP Specialists, the Family Forest Fish Passage Program (FFFPP), and WDFW's Fish Passage and Diversion Screening Inventory (FPDSI) database. This new database is being compiled on the same schedule as the other RMAP data.

We published the revised version of the Forest Practices RMAP Points data set in December 2014. This dataset was updated again in May 2015. The forest practices RMAPs specialists in DNR regional offices worked diligently to update this version of the data set, filling in many barrier replacement dates, and other data items that were previously missing. It is the most complete dataset to date**.**

15. Forest Practices Program Budget

15.1 Introduction

The Forest Practices program continued to provide core programs and support the scientific research to sustain the state's Forest Practices Habitat Conservation Plan and Clean Water Act (CWA) assurances in FY2015 utilizing allocated General Fund-State (GF-S) funds along with the following four funding sources:

Forest Practices Application Account (FPAA) enacted by 2ESSB 6406 to fund the implementation of hydraulic project integration, which shifted the responsibility for approving hydraulic projects on forestland to DNR;

One-time funding from the Aquatics Land Enhancement Account (ALEA) and Environment Legacy Stewardship Account (ELSA) replaced 26 percent of the GF-S appropriation for the Forest Practices programs; and

Stakeholder driven and supported strategic reinvestment funding from the fund balance in the Forests and Fish Support Account (FFSA) continued to support core programs in Operations and Small Forest Landowner assistance, while maintaining participation grants in the Adaptive Management Program.

The 2013-2015 biennial allocation for the Forest Practices Program exceeded the $22.7 million funding level minimum measured in 2005 dollars as identified in the 2012 Settlement Agreement. The Forest Practices base biennial allocation by funding source is reflected below (Table 1).

Table 1: 2013-2015 Biennium Operating Allocation

2013-2015 Base Allocation by Activity	FTEs	Total GF-S	Total FFSA	Total FPAA	Total ALEA	Total ELSA	TOTAL FUNDS
Forest Practices Act & Rules	106.30	$14,782,300	$333,100	$1,271,300	$755,400	$1,613,900	$18,756,000
Forest Practices Adaptive Management Program	4.24		$10,923,700		$459,600		$11,383,300
Small Forest Landowner	3.00		$179,800		$372,300		$552,100
Program Development	4.99				$826,000		$826,000
TOTALS	**119.03**	**$14,782,300**	**$11,436,600**	**$1,271,300**	**$2,413,300**	**$1,613,900**	**$31,517,400**

15.2 2013-2015 Biennial Allocation by Activity

The Forest Practices Program is organized into four functional activities. The following lists what is funded within each functional activity.

<table>
<tr><th>Forest Practices Act & Rules (Operations)</th><th>Adaptive Management Program</th><th>Small Forest Landowner Office</th><th>Program Development</th></tr>
<tr><td>Application Processing</td><td>Adaptive Management Staff</td><td>SFLO Program and Operations</td><td>Forest Practices Board</td></tr>
<tr><td>Compliance Monitoring</td><td>Adaptive Management Projects</td><td>Forest Stewardship and Landowner Assistance</td><td>Rule Making/ Board Manual</td></tr>
<tr><td>Enforcement</td><td rowspan="2">Forest and Fish Support Account:

Participation grants to tribes /tribal organizations</td><td rowspan="4">Forest and Fish Support Account:
One-time funding for the inventory of forest roads on small forest landowner properties</td><td rowspan="2">Forest Practices Habitat Conservation Plan</td></tr>
<tr><td>RMAPS</td></tr>
<tr><td>IT/GIS Development & Support</td><td>Participation grants to non-profits</td></tr>
<tr><td>Stakeholder Assistance Training</td><td rowspan="2">Participation grants to Ecology & Fish and Wildlife Departments</td><td></td></tr>
<tr><td>Forest and Fish Support Account:
One time funding for Forest Practices Application Review System (FPARs) GIS database update & RMAP field specialist</td><td></td><td></td><td></td></tr>
<tr><td>Forest Practices Application Account:
Forest Practices Applications with activities carried out in water, such as the construction, removal, or replacement of a culvert or bridge</td><td></td><td></td><td></td></tr>
<tr><td>Department of Fish & Wildlife Interagency agreement for concurrent consultation on forest practices hydraulic projects</td><td></td><td></td><td></td></tr>
</table>

15.3 2013-2015 Biennium Operating Expenditures by Activity

The Forest Practices Program expended a total of $14.3 million in FY2015. Approximately $228,052 of the FPAA financed an interagency agreement with Washington Department of Fish & Wildlife (WDFW) for concurrent consultation on forest practices hydraulic projects; and additional foresters in five regions. To date $184,399 of the FFSA reinvestment funded a region field specialist in Road Maintenance and Abandonment Plans (RMAP) implementation; a project GIS staff to update data allowing field staff to be more proactive and efficient when reviewing and complying FPAs; and a region small forest landowner assistance forester to assist in the CWA milestone associated with a small forest landowner road/water crossing inventory and risk evaluation. Roughly $3.1 million of the FFSA continued to support participation grants to tribal, non-profit public interest organizations and two sister state agencies in the Adaptive Management Program (AMP). The AMP research projects expended $1.5 million and the rest was spent in AMP project support of the FFSA. The AMP administration spent $208,736 of ALEA funds. The expenditures for this fiscal year are reflected in the table below (Table 2). These expenditures do not include the FTEs and budget for the federally funded portion of the stewardship grants or state capitol funding.

Table 2: FY 15 Expenditures (July 1, 2014 – June 30, 2015)

FY 2015 Expenditures by Activity	FTEs	Total GF-S	Total FFSA	Total FPAA	Total ALEA	Total ELSA	TOTAL FUNDS
Forest Practices Act & Rules	95.58	6,929,404	94,422	228,052	446,619	955,335	8,653,832
Forest Practices Adaptive Management Program	3.17		4,757,000		208,736		4,965,736
Small Forest Landowner	3.00		89,977		184,258		274,235
Program Development	4.92				409,795		409,795
TOTALS	**106.67**	**6,929,404**	**4,941,399**	**228,052**	**1,249,408**	**955,335**	**14,303,598**

15.4 Full Time Employees

The Forest Practices Program utilized 90 percent of the statewide allotted full time equivalent (FTEs) positions. Overall the program experienced a position vacancy rate of 5 percent during FY2015. The reasons for this are primarily due to promotions, retirements, transfers, and recruitment challenges. Forest Practices Program staff also participated in the statewide fire program which contributed to the differences in charging to the base program. This staffing difference accounts for approximately 5 percent during FY2015.

The following table (Table 3) reflects the actual FTEs for this fiscal year. The main factors contributing to the variance from allocated biennium FTEs is a 5 percent fire participation rate and a 5 percent vacancy savings level.

Table 3: Full-Time Equivalents (FTEs)

2013-2015 Allocation by Activity	13-15 BN* FTEs	Actual FY 15 FTEs	Difference
Forest Practices Act & Rules	106.30	95.58	10.72
Forest Practices Adaptive Management Program	4.24	3.17	1.07
Small Forest Landowner	3.00	3.00	0
Program Development	4.99	4.92	0.07
TOTALS	**118.53**	**106.67**	**11.86**

*BN = biennium

16. Washington Timber Harvest Report

16.1 Introduction

The following Washington State Timber Harvest Report[1] summary, *Timber Harvest by Owner Class and Region*, provides a historical record of timber harvest activities, by landowner class from 1990 to 2015. It includes harvest data for eastern and western Washington.

Timber Harvest [1] by Ownership and Region

Volumes in thousand board feet, Scribner

Calendar Year	State Total	FPHCP, other Aquatic HCPs						Federal/ Tribal Nat'l Forests, BLM , Others
		FPHCP, other Aquatic HCPs	Western WA[2]	Eastern WA[2]	Private[3]	Public		
						DNR[4]	Other Public[5]	
1990	6,032	5,017	4,159	859	4,330	657	30	1,015
1991	5,276	4,390	3,585	806	3,822	535	33	886
1992	5,203	4,549	3,692	858	4,030	476	43	654
1993	4,521	3,991	3,135	862	3,513	461	17	530
1994	4,355	3,952	3,116	836	3,619	323	10	403
1995	4,622	4,236	3,332	904	3,720	496	20	386
1996	4,536	4,179	3,247	931	3,544	600	35	357
1997	4,497	4,066	3,190	884	3,390	645	31	431
1998	4,297	3,901	3,067	835	3,319	546	36	396
1999	4,717	4,257	3,320	937	3,580	662	15	460
2000	4,507	4,083	3,191	893	3,507	559	17	424
2001	4,041	3,638	2,825	813	3,116	496	26	403
2002	3,901	3,497	2,685	814	3,000	457	40	404
2003	3,377	3,241	2,759	481	2,697	510	34	136*
2004	3,787	3,691	3,134	556	3,052	588	51	96*
2005	3,571	3,490	2,914	576	2,864	594	32	81*
2006	3,324	3,249	2,682	567	2,786	404	59	75*
2007	3,264	3,169	2,593	576	2,685	448	36	95*
2008	2,757	2,653	2,297	357	2,067	515	71	104*
2009	2,217	2,116	1,877	239	1,423	641	52	101*
2010	2,737	2,619	2,337	283	1,828	764	27	118*
2011	2,984	2,876	2,529	347	2,206	637	33	108*
2012	2,739	2,657	2,311	347	2,182	442	33	82*
2013	3,298	3,088	2,673	415	2,525	513	50	210
2014	3,389	3,090	2,693	396	2,457	585	48	299

*Tribal data is not included in these years

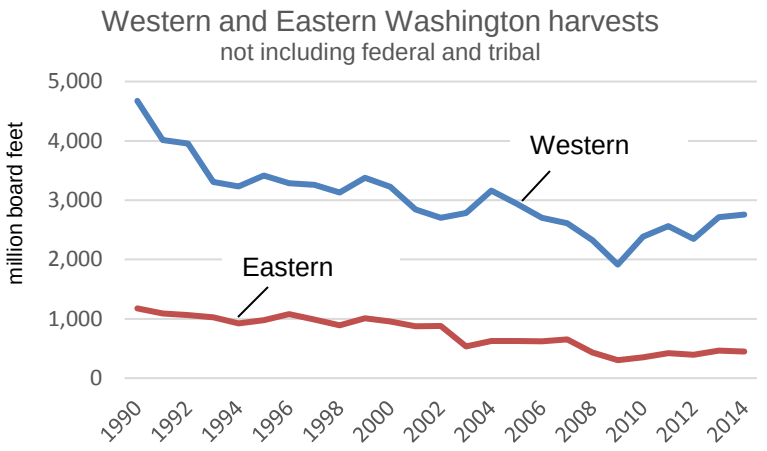
[1]Timber harvest statistics are based on data gathered by the Washington Department of Revenue.

[2]Eastern and western boundary is formed by the counties along Cascade Range crest.

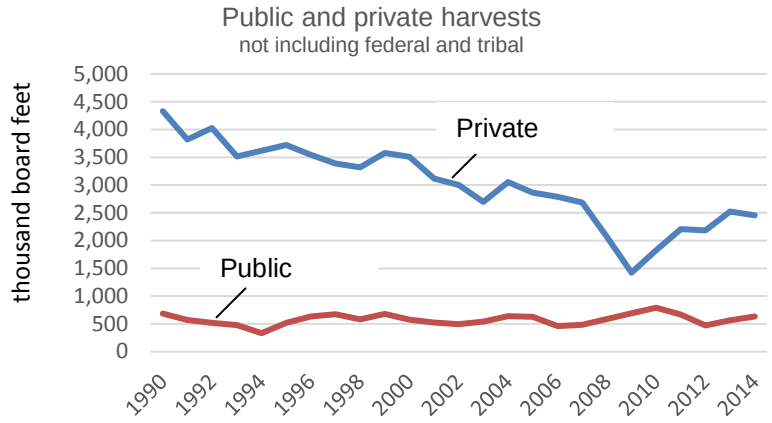
[3]Private includes large forest landowners, small forest landowners and industrial timber owners forests.

[4]Harvests from lands managed by the Washington State Department of Natural Resources (DNR).

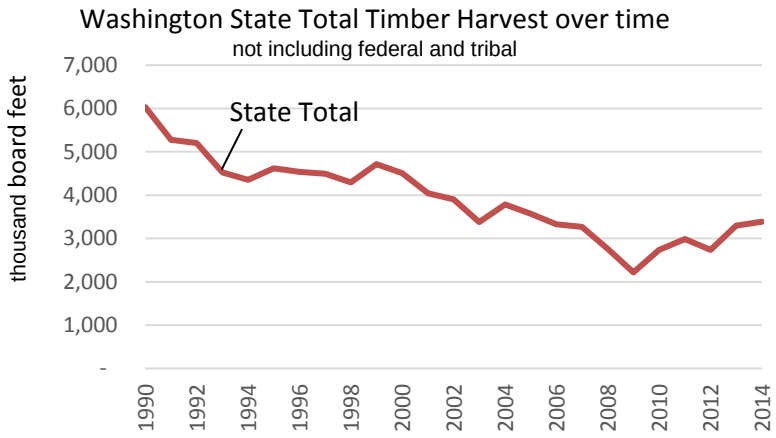
[5]Includes public lands owned by cities, counties, public utilities, and state agencies other than DNR



With near rainforest levels of rainfall, Western Washington is among the greatest producers of softwood timber in the U.S. Even arid Eastern Washington contributes up to half a billion board feet of annual timber harvest, primarily in the pine forests of northeastern Washington..



The majority of timber harvested in Washington comes from privately owned – mostly industrial – forests. The harvest levels vary. In periods of low market prices, owners prefer to wait and allow the trees to grow another year. Most trees harvested from publicly-owned lands come from state-owned forests, managed by the Department of Natural Resources. The state agency generally harvests at uniform levels (400-500 million board feet) per year.



In 2014 Washington's total timber harvest was 3.2 billion board feet, a level not reached since 2007. Harvest levels were between 5 and 8 billion board feet until 1992 when they began to drop. Compounded by the housing market collapse, harvest levels decreased to 2.2 billion board feet in 2009.

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18. List of Acronyms

Agencies and Organizations

the Board	Washington Forest Practices Board
DAHP	Department of Archaeology and Historic Preservation
DNR	Washington State Department of Natural Resources
RCO	Recreation and Conservation Office
SFLO	Small Forest Landowner Office
SRFB	Salmon Recovery Funding Board
USFWS	United States Fish and Wildlife Service
WCLA	Washington Contract Loggers Association
WDFW	Washington Department of Fish and Wildlife
WDOT	Washington Department of Transportation
WFFA	Washington Farm Forestry Association
WFPA	Washington Forest Protection Association
Ecology	Washington State Department of Ecology

Technical Terms

CMZ	Channel Migration Zone
DFC	Desired Future Condition
EBAI	Equivalent Area Buffer Index
GF-State	General Fund - State
GIS	Geographic Information System
FTE	Full Time Equivalent
FY	Fiscal Year
FPA/N	Forest Practices Application/Notification
FPRAT	Forest Practices Risk Assessment Tool
ICN	Informal Conference Note
LGE	Local Government Entity
LHZ	Landslide Hazard Zonation
LWD	Large Woody Debris
NTC	Notice to Comply
RMZ	Riparian Management Zone
SWO	Stop Work Order
Type F	Fish-bearing stream
Type Np	Non fish-bearing, perennial stream
Type Ns	Non fish-bearing, seasonal stream
WAU	Watershed Administrative Unit
WRIA	Water Resource Inventory Area

Personnel, Programs, Plans and Reports

AMP	Adaptive Management Program
AMPA	Adaptive Management Program Administrator
CMER	Cooperative Monitoring, Evaluation, and Research Committee
CMP	Compliance Monitoring Program
FFFPP	Family Forest Fish Passage Program
FFSA	Forests and Fish Support Account
FPARS	Forest Practices Application Review System
FPETS	Forest Practices Enforcement Tracking System
FPF	Forest Practices Forester
FPHCP	Forest Practices Habitat Conservation Plan
FREP	Forestry Riparian Easement Program
FFR	Forests and Fish Report
HCP	Habitat Conservation Plan
IDT	Interdisciplinary Team
ISPR	Independent Scientific Peer Review
RMAP	Road Maintenance and Abandonment Plan
ROSP	Riparian Open Space Program
RP&S	Resource Protection and Services
SRC	Scientific Review Committee
TFW	Timber/Fish /Wildlife

Regulations, Acts and Permits

CWA	Clean Water Act
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ITP	Incidental Take Permit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
WAC	Washington Administrative Code

19. Appendix

Appendix #1						
Summary of Clean Water Act Projects						
			Updated Jan 2016			
Project # /Name	**Project Lead**	**Project Description**	**Percent (%) Complete**	**Completed on Time**	**Original Due Date**	**Comments**
1 - Revised CMER Work Plan	Hotvedt	By July 2009, and in subsequent budget and planning years, the AMP Administrator with the assistance from the Policy and CMER committees will send to the Forest Practices Board a revised CMER work plan and budget that places key water quality studies as high priorities as described in section II(c) regarding the adaptive management program.	100% - for current FY	Yes	July 09	This is an annual task that has been completed successfully twice and signed off on by Ecology through 2010. (See DOE letter dated 10/4/10).

2 – Table 1 Projects	Hotvedt	By July 2009, and in subsequent planning years, the projects identified by Ecology in Table 1 will be reflected in the CMER budget and work plan in a manner that establishes a priority schedule for study development. Failure to meet any of the milestones identified without prior consent by Ecology may be viewed as a basis to revoke the CWA assurances at that point in time.	100%- for current FY	Yes	July 09	This is annual task that has been completed successfully twice and signed off on by Ecology through 2010. (See DOE letter dated 10/4/10).
3 – AMP Funding Strategy	Hotvedt	The Forest and Fish Policy Budget Committee will identify a strategy that will be implemented with caucus principal support to secure stable, adequate, long-term funding for the AMP.	100%	Yes	September 09	Project is complete. The Forests and Fish Policy Committee developed the strategy they would use to seek out sufficient long term stable funding for the Adaptive Management Program. That strategy, while thus far unsuccessful in finding long term funds, satisfies milestone number 3 according to Ecology. (See DOE letter dated 10/4/10).

4 - Compliance Monitoring Stakeholder Charter	Obermeyer	DNR will complete the Charter for the Compliance Monitoring Stakeholder Guidance Committee and determine which issues identified herein related to compliance monitoring will be dealt with by the committee. This is intended to help move these issues forward on schedule as well as to flag the items for which an alternative process for resolution is needed.	100%	Yes	October 09	Project is complete. Ecology provided final project sign-off on 12/10/09 (see email).
5 - Protocols and Standards Training	Berge	The AMP program administrator, with the assistance of CMER and Policy, will complete the ongoing training sessions on the AMP protocols and standards for CMER, and Policy. This is intended to remind participants of the agreed upon protocols. Opportunity should also be provided to identify portions of the protocols and associated rules that need revision to improve performance or clarity. Any identified improvements to the Board Manual or regulations should be implemented at the soonest practical time. Subsequent to this	95%	No	December 09	Six new members were appointed to the Forest Practices Board at the beginning of 2012 and all six were given training on the Adaptive Management Program. In 2015, one new board member and the new Board Chair received the training. New members have been and will continue to be trained as they are appointed to the Board. Efforts to identify portions of the protocols and associated rules that need revision to improve performance and clarity have been undertaken by

		effort, the administrator will offer to provide this training to the Board.				the AMPA and Policy and CMER co-chairs. Policy and CMER co-chairs and the AMPA have itemized and prioritized issues resulting from AMP training and from the Stillwater Report. CMER is currently revising its Protocols and Standards Manual, taking into consideration comments and recommendations from the Stillman Report and others.
6 - CMER Project Flagging Process	Hotvedt	The AMP Manager with the assistance of the co-chairs of Policy and CMER will initiate a process for flagging projects for the attention of Policy that are having trouble with their design or implementation. This process should identify projects not proceeding on a schedule reflecting a realistic but expedient pace (i.e., a normal amount of time to complete scoping, study design, site selection, etc.).	100%	No	December 09	Project is completed. A briefing on the product was provided to CMER at the August 24, 2010. The milestone was completed with a briefing to Forests and Fish Policy at their October 2010 monthly meeting. The process was accepted by Mark Hicks, Department of Ecology on Nov. 3, 2010.

7 - Rule Element Sampling	Obermeyer	DNR in partnership with Ecology and with the aid of the CMP stakeholder guidance committee will develop general plans and timelines for exploring options and data collection methods for assessing compliance with rule elements such as water typing, shade, wetlands, haul roads and channel migration zones. The goal is to initiate these programs by December 2011.	100%	No	December 09	Project is completed. Final plan delivered to Ecology on March 31, 2010. Ecology sent an e-mail accepting the plan on March 31, 2010.
8 - Field Dispute Resolution	Obermeyer	DNR with assistance of Ecology and WDFW will evaluate the existing process for resolving field disputes and identify improvements that can be made within existing statutory authorities and review times. Although resolution of the specific issue at hand should be a goal, the overarching purpose of this milestone is to establish a process that will identify the basis for the dispute and to put in place revised guidance, training, reporting pathways, other measures that will minimize the reoccurrence of similar disputes in the future. This process should consider how to best involve the appropriate mix of both policy	100%	No	January 10	Project complete. Final document sent to Mark Hicks at Ecology. Mark Hicks approved the completion of the milestone. See email dated 11/3/10.

		and technical participants to thoroughly resolve the issue at hand.				
9 - Stakeholder RMAP Participation	Mahan	As part of the RMAP annual meeting process, DNR should ensure opportunities are being provided in all the regions to obtain input from Ecology, WDFW, and tribes formally participating in the forest and fish process regarding road work priorities.	100%	No	January 10	Project completed on 8/9/11 when the forest practices board agreed to process changes and board manual changes in the RMAP process. Mark Hicks signed off on completion on 9/2/11.
10 - Water Type Modification Review Process	Tasker	DNR in consultation with WDFW, Ecology, and the tribes will develop a prioritization strategy for water type modification. The intent of this strategy will be to manage the number of change requests sent to cooperating agencies for 30-days review so it is within the capacity of those cooperators to respond to effectively. The strategy should consider standardizing the current ad hoc process of holding monthly coordination meetings with agency and tribal staff in all the DNR regions. This should allow group knowledge and resources to be more efficiently used to evaluate change requests.	100%	Yes	February 10	Project is complete. The Regions have been conducting their WTR Team meetings and implementing the process. See Hicks email dated 11/24/10 for final Ecology approval.

11 - Water Typing On-Line Guidance	Mahan	DNR Forest Practices will establish online guidance that clarifies existing policies and procedures pertaining to water typing. The intention is to ensure regional staff and cooperators remain fully aware of the most current requirements and review processes for changing water type and coordinating the review of multidisciplinary teams.	100%	No	May 10	Project complete. See Mark Hick's email dated 9/24/12 for final Ecology approval.
12 - Certification Framework	Casey	DNR with consultation with Ecology and WDFW (or with the CMP stakeholder guidance committee), will establish a framework for certification and refresher courses for all participants responsible for regulatory or **CMP** assessments. This will be focused on aiding in the application of rules regarding bankfull width, CMZ boundaries, application of road rules, and wetlands. Consideration should be given to including a curriculum of refresher courses on assessing difficult situations.	100%	No	June 10	Forest Practices Training Manager was hired in May 2012. Framework development will continue in 2013. Compliance Monitoring, Wetland, and Unstable Slopes training continues to be offered to Forest Practices staff and stakeholders. Milestone was signed off as complete by Mark Hicks on 9/10/13.

13a, b, c - Individual Landowner Tracking	Casey	By June 2010, DNR, Ecology, ad WDFW will meet to review existing procedures and recommend improvement needed to more effectively track compliance at the individual landowner level. The goal will be to ensure the compliance pattern of individual landowners can be effectively examined. This should consider the types and qualities of enforcement actions that occur (e.g., conference notes, notices of correction, stop work orders, penalties.)	13a - 100% 13b - 100% 13c - 100%	Yes Yes Yes	Jun-2010 Oct-2010 May-2012	The project was broken into three separate milestones with individual due dates: **13a** - **By June 2010**: This project is completed - the group evaluated the current data base that is used to track compliance and determined that it is acceptable. See DOE acceptance in 11/3/10 email. **13b - By October 2010**: This project is completed. DNR, Ecology, and WDFW conducted an initial assessment of trends in compliance and enforcement actions taken at the individual landowner level. The process to review compliance and enforcement trends for individual landowners was established and Accepted by Mark Hicks, Department of Ecology on Nov. 3, 2010. **13c - By May 2012**: This project is completed and accepted by Mark Hicks, Department of Ecology via email on June 8, 2012. Ecology accepted a spreadsheet that "documents an effective format for tracking

						and communicating patterns of compliance at the individual landowner level. Maintaining compliance data in this straightforward format will readily allow the information to be examined at both annual and longer time scales."
14 - Riparian Non-Compliance	Obermeyer/ Jackson	DNR with the assistance of Ecology, will assess the primary issues associated with riparian noncompliance (using the CMP data) and formulate a program of training, guidance, and enforcement believed capable of substantially increasing the compliance rate - with a goal of getting greater than ninety percent compliance by 2013. Ecology will consider the rating of noncompliance since not all infractions have the same effect on public resources (e.g., is it predominately at levels within reasonable field method limits or likely to occur even with due diligence) when determining if this compliance target rate milestone has been satisfied.	100%	No	Jul-10	Project is complete. Ecology accepted the final document, *Improving Riparian Management one Compliance – A strategy to meet the Clean Water Assurances, Washington State Department of Natural Resources, Forest Practices Division, 8/1/12*. The milestone was accepted as completed via an email from Mark Hicks dated 8-10-12.

15 - SFL Road Risk Evaluation Strategy	Hicks/Engel	Ecology will develop a plan for evaluating the risk posed by SFL roads for delivery of sediments to waters of the state. DNR has developed a SFL roads inventory form and conducted a pilot roads inventory project using the form. DNR is actively developing a plan to implement a voluntary SFL roads inventory statewide. The SFL roads inventory form and the draft SFL roads report, including results from the pilot roads inventory project, have been sent to Ecology	95%	No	Jul-10	DNR continues to develop a statewide strategy to implement the voluntary SFL roads inventory. This effort includes promoting voluntary participation by SFL's by DNR stewardship foresters, forest practices foresters, FFFPP foresters and conservation easement foresters, and by partnering with Washington Farm Forestry Association. DNR received a small grant from the Northwest Fish and Wildlife Foundation to work in partnership with Northwest Natural Resources Group foresters to promote voluntary SFL roads inventory participation in NW Washington. 11-19-15 Update: Pilot sampling has been completed. Currently working on ongoing sampling across the state.

16 - Type N Rules Evaluation Strategy	Engel	Policy, in consultation with CMER, developed and the Board approved a strategy to examine the effectiveness of the Type N rules in protecting water quality. This strategy includes: 1. Ranking and funding of the Type N studies as highest priorities for CMER research. 2. Completing a comprehensive literature review examining the effects of buffers on streams physically similar to the Type Np waters in the forest practices rules prior to completion of the Type N basalt effectiveness study. One element of the strategy has not been completed: The development for inclusion in the forest practices board manual of a protocol for identifying with reasonable accuracy the uppermost point of perennial flow, or develop documentation demonstrating the spatial and temporal accuracy of the existing practice used to identify this point.	95%	No	Jul-10	The TFW Policy Committee has agreed to the dry season protocol for identifying the uppermost point of perennial flow (UMPPF) for Type N Waters. It is hoped to reinvigorate the process to develop a wet season protocol to identify the UMPPF during calendar year 2015. 11-19-15 Update: Policy has delayed completing due to other workload issues. All that remains is the development of a wet season methodology.

17 - Alternate Plan Evaluation	Anderson/ Barnes	DNR, in partnership with Ecology, and in consultation with WDFW, the Tribes, and the SFL advisory committee, will design a sampling plan to gather baseline information sufficient to reasonably assess the success of the alternate plan process. This sampling plan should include how to select sample sites, how to best document the content and assumptions contained in the alternate plan, what to monitor and how frequently to do so, and responsibilities for who will conduct the sampling. The goal of this effort is to initiate data collection in the 2011 field season.	100%		Oct-10	Field work is completed as of September 2012, with suggested monitoring concepts for complex alternate plans. The Forest Practices Division is developing program guidance to further refine these concepts and require they be incorporated into the process statewide. 12-10-14 Alternate Plan guidance memo developed and accepted by Ecology via email from Hicks on 12-11-14.
18-Independent AMP Review	Berge	The AMP Program administrator shall initiate the process of obtaining an independent review of the AMP. This review shall be done by representatives of an independent, third party research organization.	20%	No	Dec-10	A LEAN event was completed in May 2012 that recommended a streamlined approach to developing CMER study designs. The approach would continue to require CMER approval of final study designs, but excluded multiple intermediate decision points associated with the current

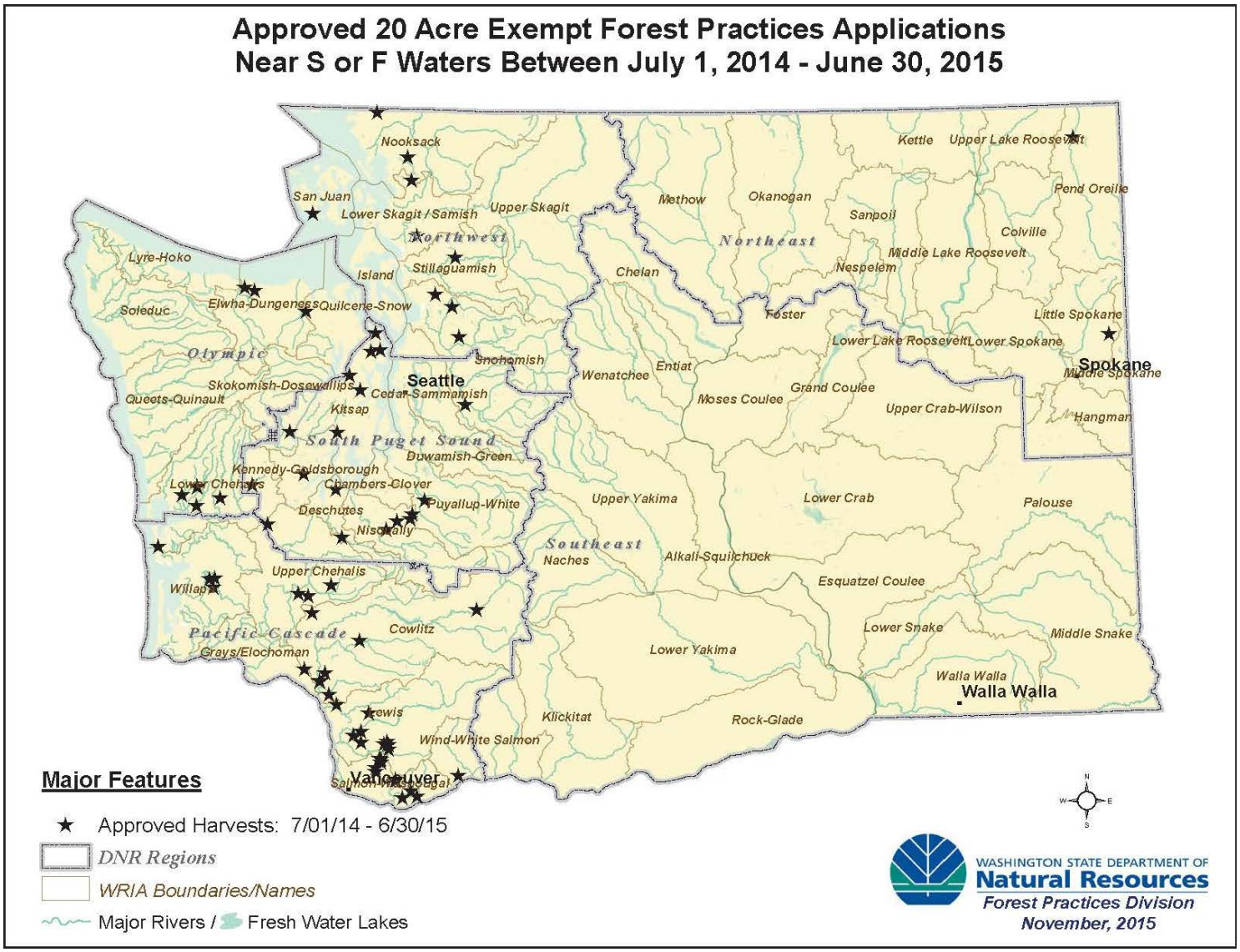
						review and approval processes. The recommended process will be tested using a pilot on a CMER project, yet to be determined. In addition, Policy has recommended AMP rule changes and is currently revising the AMP Board Manual 22 to reform the AMP. Changes include an addition of three caucuses, shortening the dispute resolution process timeline, allowing CMER to invoke Stage 2 dispute resolution, and creation of a CMER project master schedule that lines out projects over the next 15+ years. 11-19-15 Update: The State Auditor's Office was unable to secure funding to conduct the review.

19 - Water Type Modification Strategy Review	Mahan	DNR in consultation with WDFW, Ecology, and the Tribes will complete an evaluation of the relative success of the water type change review strategy. Results of this review would be used to further refine the strategy.	100%	Yes	Dec-11	Ecology accepted the milestone as complete as stated in a memo (email) from Mark Hicks on 3-18-13 - "The purpose of this memo is to provide a formal record of completion of the CWA Assurances' milestone for identifying and making any improvements to the recently adopted water typing review strategy."
20 -RMAP Summary	Potter	DNR with the assistance of large landowners, will provide summary information for all industrial landowners having RMAPs. The summary information will include at a minimum: Date RMAP completed, total miles of road covered under the RMAP, total miles describing the strategy for bringing all roads into compliance by 2016 that demonstrates evenflow or otherwise provides confidence that compliance will be	100%			Project complete on 8/9/11. The Forest Practices Board agreed to process changes, and Board Manual changes that completed this Milestone. Mark Hicks signed off as complete on 9/2/11.

		attained by 2016. If reasonable and feasible, the summary will show the annual progress on road and barrier improvement that has occurred since the inception of the RMAP, and DNR will provide a master summary for all industrial landowners combined.				
21-SFL Roads Report	Hicks/ Engel/	Ecology will prepare a summary report assessing the progress of SFLs in bringing their roads into compliance with road best management practices, and any general risk to water quality posed by relying on the checklist RMAP process for SFLs. If a significant portion of SFL roads are estimated to pose a risk of damage to public resources, then a report will be prepared in time to brief the Legislature in December 2013. Ecology will work with DNR and the SFL advisory committee to develop a plan for evaluating the risk posed by SFL roads for delivery of sediments to waters of the state. DNR has developed a SFL roads inventory form, conducted a pilot roads inventory project using the form, and is actively developing a plan to implement a voluntary SFL roads inventory statewide.	50%		13-Nov	This report is due to the legislature in 2013. DNR is developing a statewide strategy to implement their voluntary SFL roads inventory. This efforts includes promoting voluntary participation by SFL's by DNR stewardship foresters, forest practices foresters, FFFPP foresters and conservation easement foresters, and by partnering with WFFA. DNR received a small grant from the Northwest Fish and Wildlife Foundation to work in partnership with Northwest Natural Resources Group foresters to promote voluntary SFL roads inventory participation in NW Washington. 11-19-15 Update: This report is in the process of being completed.

2-Unstable Slopes Rules Compliance	Engel	Initiate a program to assess compliance with the unstable slopes rules. The DNR Forest Practices Science Team (FPST) initiated a spreadsheet beginning 1/1/2012 to track landowner development of geological information needed address potentially unstable slopes and landforms associated with FPAs. This spreadsheet can be modified to assess landowner compliance to the unstable slopes forest practices rules including: 1. adequacy of geologic information for DNR to classify FPA; 2. Thoroughness of geotechnical reports associated with SEPA and Class IV-Special FPAs; 3. Landowner accuracy and compliance to field delineated boundaries of unstable slopes.	40%		2012	This new "forest practices program" milestone was transferred to the program milestone list in July 2011. It was originally listed by Ecology under CMER milestones. 11-19-15 Update: This CWA milestone is an emphasis for the Compliance Monitoring Program. More information to come.

Appendix #2a: Approved 20-Acre Exempt FPAs Near S or F Waters 7/1/14 – 6/30/15



Appendix #2b: Approved 20-Acre Exempt FPAs Near S or F Waters 6/5/06 – 6/30/15