

3. Adaptive Management Program

3.1 Introduction

This chapter provides a brief background on the Adaptive Management Program (AMP) and accomplishments to date. Those accomplishments in large part occur through the Cooperative Monitoring, Evaluation and Research Committee projects. The committee's 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 electrofishing activities associated with Adaptive Management Program projects. The Services specifically requested this information through the conditions that govern the Incidental Take Permits.

3.2 Purpose of Adaptive Management Program

The Adaptive Management Program is intended to produce technical information and science-based recommendations to assist the Forest Practices Board (Board) in determining if and when it is necessary or advisable to adjust forest practices rules and guidance in order to achieve program goals, resource objectives and performance targets identified in the Forest Practices Habitat Conservation Plan (Forest Practices HCP). As a result, a successful Adaptive Management Program is essential to ensuring the ongoing development and implementation of measures that effectively conserve the habitats of species covered under the Forest Practices HCP. A full description of the program, the components, process, as well as the research and monitoring programs can be found in Chapter 4, Section 4a-4 of the Forest Practices HCP.

The current Adaptive Management Program has been formally in place since the adoption of the Forests and Fish Rules in 2001. Schedule L-1 from the [Forests and Fish Report](#) (Washington DNR 1999) served as the foundation for the program, and more specifically guides the development of research and monitoring projects described in the fiscal year (FY) [2011 CMER Work Plan](#) (CMER 2010). Key questions - and therefore research and monitoring priorities - are likely to change over time as adaptive management proceeds and new information becomes available. Major research priorities presented in the CMER Work Plan have not changed substantially at the overall program level since the most recent program prioritization in 2002. However, some reprioritization has taken place on a project level in an effort to answer questions related to Clean Water Act (CWA) requirements in a timelier manner. While at the discretion of the Board, changes to resource objectives, performance targets and research and monitoring priorities typically would be reviewed and agreed to by the Forests and Fish Policy Committee.

3.3 Adaptive Management Program History

Since 2001 the Adaptive Management Program has completed more than 30 projects. Many of these projects are posted on the program web-page (see section 3.6). Much of the program's early work was to support rule tools designed to develop, refine or validate protocols, models and targets used to facilitate forest practices rule implementation. These projects did not necessarily result in a final project report or rule change, but did result in draft reports, GIS products or other types of databases.

Over the last few years the Adaptive Management Program has focused much of its effort on effectiveness monitoring and extensive (status and trends) monitoring projects. The effort to more

fully integrate research and monitoring across spatial and temporal scales is ongoing and will continue in FY 2011.

The Adaptive Management Program caucus principals worked together in FY 2010 to seek long-term funding for the program (see section 3.5 below). Additionally, the Adaptive Management Program submitted three proposals for research and monitoring funding to the Environmental Protection Agency (EPA). One proposal was for partial funding of a “soft rock” Type N buffer effectiveness project, emphasizing water temperature and sediment delivery. Another proposal was for partial funding for a wetlands mitigation effectiveness study, focusing on the effectiveness of the road mitigation sequence in maintaining riparian functions. The third proposal was for funding to develop a management information database and information sharing system. It has not been normal practice for the Adaptive Management Program to submit proposals for funding. Developing and submitting these funding proposals is a significant accomplishment in FY 2010.

3.4 Cooperative Monitoring, Evaluation, and Research Committee

The Cooperative Monitoring, Evaluation and Research Committee produces an annual work plan that describes the various Adaptive Management Program research and monitoring programs, associated projects and work schedule. The work plan can be found on the Adaptive Management Program web page (see section 3.6 below) under the “files” header. The plan is intended to inform participants, the Forest Practices Board, the Forests and Fish Policy Committee and members of the public about CMER Committee activities. The programs in the work plan originally were prioritized, based on the level of scientific uncertainty and resource risk associated with the priorities of Schedule L-1 in the Forests and Fish Report and incorporated into the Forest Practices HCP. Cooperative Monitoring, Evaluation and Research projects address the higher priority programs 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 FY 2010 to focus on Clean Water Act requirements over the next few years. The plan is a dynamic document that is revised annually in response to research findings and changes in the Forests and Fish Policy Committee objectives and funding.

The Cooperative Monitoring, Evaluation and Research Committee takes on many other ad hoc projects in addition to their ordinary course of business of developing, implementing, and reporting on research and monitoring projects and revising and improving its annual work plan every year. One project taken on in FY 2010 developed a table (found in 2011 CMER Work Plan) that shows the complementary relationships among studies found in the annual work plans addressing forests and fish goals and resource objectives. For each project, the table displays the status, task type, goals, resource objectives, and performance targets addressed by the project. Construction of this table has allowed the committee to review all of its projects in a comprehensive way. It provides valuable information to Policy and CMER in their assessment of the balance of efforts being placed in answering questions related to the various resource objectives and performance targets. It also helps answer questions about the balance of types of research and monitoring undertaken, e.g., rule tools vs. monitoring.

Under each research and monitoring program in the FY 2011 work plan is a new section titled “Link to Adaptive Management.” This section was added to the work plan primarily to help Forests and Fish Policy and the Forest Practices Board to understand how each rule group critical question is being addressed by the projects. Knowledge gained or anticipated, identified gaps, and recommendations for addressing gaps are discussed for each critical question. The

“Link to Adaptive Management” section will be updated as projects are completed. The intent is to have this section completed for every program within the work plan. However, for the FY 2011 CMER Work Plan, the programs were prioritized for active and completed projects.

The Forest Practices Application, Desired Future Condition (FPA DFC) Desktop Analysis study went through Independent Scientific Peer Review and was completed in FY 2010. This study is part of a larger group of riparian Desired Future Condition Validation Program studies under the Type F Riparian Prescriptions Rule Group. This project was intended to determine how Westside Type F prescriptions are being applied by landowners, and to evaluate the effect of various riparian prescription options and constraints on timber available for current harvest and on projected future basal area. Forest & Fish Policy Committee requested that the Cooperative Monitoring, Evaluation and Research Committee complete an office (desktop) analysis of a random set of forest practices applications with active management of the riparian inner zone and to conduct a field-verification project on a sub-sample of those applications.

The status of active projects can be found on the Adaptive Management Program web-page under the “related links” header. There is also a link to final reports for completed projects under this same header. Agendas of CMER Committee and Forests and Fish Policy Committee meetings can be found under “related links” header on the CMER webpage.

3.5 Forests and Fish Policy Committee Activity (July 1, 2009 – June 30, 2010)

General Policy Activity

The Forests and Fish Policy Committee held a budget retreat in April 2010 and approved the FY 2011 Cooperative Monitoring, Evaluation and Research work plan and budget. The Forest Practices Board approved the same at the May 2010 meeting. Most of the FY 2011 projects have been in place for at least a year or more, with many likely to be completed by the end of FY2011. The work plan proposes implementing four new projects in FY2011.

The Cooperative Monitoring, Evaluation and Research Committee completed several project reports during the 2009-2010 Forest Practices HCP reporting year. Most did not result in a Forests and Fish Policy Committee action recommendation to the Board, primarily because they were reports about developing methods or the initial phases of multi-phase projects.

As reported in the 2009 FPHCP Annual Report, during 2008 a considerable amount of the Forests and Fish Policy Committee’s time was devoted to developing an Adaptive Management Program Strategic Plan (Plan). The Plan has four major goals to address four main topic areas: 1) program efficiency and effectiveness; 2) caucus relationships; 3) program funding and communications; and 4) research capability and knowledge. Policy and CMER Committee worked on the goals on many fronts.

Relative to the first goal, it has been nearly ten years since the Forests and Fish Report was completed and nearly eight years since the revised forest practices rules (“rules”) based on the FFR were adopted. Substantial investments have been made in defining and implementing a science-based program to provide relevant and timely information to inform the adaptive management system as contemplated by the FFR and required by the rules. These collective efforts—organized and implemented by CMER—have attempted to address the full spectrum of information needs and priorities set forth by the AMP, which consists of the Forest Practices Board (FPB), Policy, CMER, the Independent Science Panel (ISP), and the Program Administrator. In the spring of 2009, Stillwater Sciences completed the first independent review of the collective contribution and

progress from the various CMER research and monitoring studies. Policy and CMER began reviewing the report during the year in anticipation of developing a response.

With regard to the second goal of reestablishing and maintaining productive, collaborative caucus relationships, the Commissioner of Public Lands convened a meeting of forests and fish principals – The Forest Ecosystem Collaborative – to address many issues, including reestablishment of relationships and Adaptive Management Program funding, the latter related to goal three.

Forests and Fish Policy Committee developed, and the Forest Practices Board, approved a small forest landowner fixed-width riparian buffer template at the request of small landowners. This template simplifies implementation of the riparian forest practices rules for small landowners, while ensuring at least equal protection to existing rules. The template can be used in the development of Alternate Plans, already an option to them.

Due to the recent recession and its severe negative impact on lumber and timber markets, forest landowners, working with the governor's office, requested that Policy consider a schedule adjustment to the time period for completing Road Maintenance and Abandonment Plan (RMAP) work in order to reduce the annual cost of the program. The Governor's Office was particularly interested in providing support to small forest landowners. Policy formed a sub-group to work with the Governor's Office and all caucuses on alternatives for RMAP relief and for all caucuses to work collaboratively to seek additional funding for small landowner and county fish passage barrier repair.

Clean Water Act Assurances

Upon the completion of the Forests and Fish Report in 1999 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 – [2009 Clean Water Act Assurances Review of Washington's Forest Practices Program](#) (Department of Ecology 2009). This report was transmitted to the Forest Practices Board in October 2009.

The report concluded that while much has been accomplished, there remains much to do. In particular, Adaptive Management Program research and monitoring projects designed to determine if the rules are effective in meeting water quality standards are not yet complete. Consequently, Ecology is unable to provide evidence of rule effectiveness. As such, the report contains milestones of accomplishments related to the Adaptive Management Program, including a schedule for individual research and monitoring projects deemed important for Clean Water Act assurances. Ecology conditionally extended Clean Water Act assurances based on the need to satisfactorily accomplish the milestones. DNR established a project management tracking system for the 21 milestones which provides status reports monthly to the Forests and Fish Policy Committee, and to the Forest Practices Board at their regularly scheduled meetings.

Forests and Fish Policy Committee Priorities for Fiscal Year 2010-11

The Forests and Fish Policy Committee prioritized their work list in early spring of 2010 and submitted a letter to the Board in May 2010. Although the work list is a dynamic document, high priority work items continue to include:

1) Securing long-term supplemental funding for the AMP. Over the last ten years DNR has received seven federal grants totaling more than \$17 million to support the Forest Practices Adaptive Management Program. These grants have supplied the vast majority of the program's funding over this time period. However, the last grant will be expended by the close of FY 2011. Therefore, beginning in FY 2011 the Forest Practices Adaptive Management Program will need an additional \$2.5 million per year in operating revenue to maintain adequate program operating capacity.

To cover the budget short fall for FY 2011, the Washington legislature funded the program by tapping into the Aquatics Land Enhancement Account and relying on federal grants, if awarded. However, that was a one-time fix and not meant to be a permanent solution to long-term funding of the program. DNR also worked on an agreement with the Washington Office of Management and Budget to free up more of the money held in the Forests and Fish Support Account working reserve. These one-time allocations were sufficient to hold the program over through FY 2011.

Caucus principles (agency directors, Commissioner of Public Lands, industry and tribal caucus leaders, etc.), working with their Forests and Fish Policy Committee designees, are committed to finding new sources of stable, long-term funding. In addition to considering potential state and federal funding alternatives, the current funding strategy also includes the Cooperative Monitoring, Evaluation and Research program actively competing for federal grants when available.

2) Implementing high priority Clean Water Act assurance milestones identified in Ecology's July 2009 review.

3) Implementing other high priority tasks in the Adaptive Management Plan strategic plan.

3.6 Adaptive Management Program Website

Adaptive Management Program Website:

http://www.dnr.wa.gov/BusinessPermits/Topics/FPAdaptiveManagementProgram/Pages/fp_am_program.aspx

CMER Websites:

<http://www.dnr.wa.gov/AboutDNR/BoardsCouncils/CMER/Pages/Home.aspx>

Active CMER Projects Website:

http://www.dnr.wa.gov/BusinessPermits/Topics/FPAdaptiveManagementProgram/Pages/fp_cmer_active_projects.aspx

Completed CMER Projects Website:

http://www.dnr.wa.gov/BusinessPermits/Topics/FPAdaptiveManagementProgram/Pages/fp_cmer_completed_projects.aspx

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.

Electrofishing Activity

The only project to incorporate electrofishing as part of the research project is the ongoing project that was reported in the 2009 annual report. There were no new projects involving electrofishing related to Adaptive Management Program research between July 1, 2009 and June 30, 2010.