

Appendix XX

In 2023 the SAGs went through a process to review projects from the 2023-2025 workplan that were not complete or ongoing in order to assess which projects, if any, could be withdrawn from the workplan because they were no longer relevant, no longer needed due to scientific advancements ~~or~~ were not executable, or are not current priorities. Many of these projects have been carried forward in the workplan without a thorough assessment taking place. The SAGs and then CMER reviewed these projects and determined which ones should be retired. These projects have been removed from the main workplan and are listed below.

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1.0 CHANNEL MIGRATION ZONE RULE GROUP

1.1 CMZ Delineation Program

1.1.1 *CMZ Screen and Aerial Photograph Catalog Project and CMZ Boundary Identification Criteria Project*

Description:

The need for the CMZ delineation project, which was outlined in the 2005 Work Plan, may have been resolved with the 2004 revision of the Forest Practices Board Manual for CMZs (i.e., Section 2 in the Manual), which provides more detailed guidance.

Status:

Aside from the preliminary scoping, no CMER work on these topics was proposed.

2.0 FISH PASSAGE RULE GROUP

2.1 Fish Passage Effectiveness/Validation Monitoring Program

This entire program was recommended for ~~retirement/withdrawal from the active projects within the workplan. Fish Passage Effectiveness and/or Validation studies have yet to been designed or completed. At this time, the entire program has been withdrawn from the active projects within the workplan. Some work has been completed but there has been no priority placed on this program and no plans to further develop it.~~

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2.1.1 *Program Strategy*

There are key questions concerning the adequacy of current fish passage design methods, existing fish passage criteria, and the definition of a fish passage barrier. This is particularly true for the forest practices rules for passing “all species and life stages.” Some of these questions are applicable to high-gradient headwater streams where only resident fish species are present. This was a particular area of interest for ISAG because information on these headwater streams is lacking.

The primary purpose of the Fish Passage Effectiveness/Validation Monitoring Program is to address scientific uncertainties surrounding fish passage in headwater streams. The Fish Passage Effectiveness/Validation Monitoring Program was originally (2005) composed of three principal elements:

- 1) Fish movement capability,

- 2) Fish life history and movement ecology, and
- 3) Designs for road crossing structures that provide fish passage (barrier solutions)

As part of this strategy, ISAG worked on study designs for two primary projects: the Fish Passage Capability – Culvert Test Bed Project; and the Effectiveness of Design Criteria for Stream Simulation Culverts. ISAG also developed questions about headwater fish ecology and movement that would be answered by a literature review.

ISAG completed the study designs for the two proposed studies in 2007. CMER delivered the study designs to Policy. Policy was uncertain about the direction and focus of the proposed fish passage research strategy, as well as the proposed studies. A Policy subgroup was formed to further assess the fish passage research and monitoring strategy. During the interim, Policy directed CMER to send both study designs through the ISPR process. After CMER reviewed the results of the ISPR in May 2008, Policy decided to not proceed with either study (i.e., the Culvert Test Bed Project or Stream Simulation Project).

In June 2009, Policy agreed that (1) no fish passage research should be planned for FY 2010; (2) further discussion should occur on extensive fish passage monitoring; and (3) Policy should consider waiting for more information to come out of efforts currently underway within WDFW relative to fish passage under the hydraulic permit application (HPA) habitat conservation plan (HCP) development and fish passage effectiveness research. By 2018, WDFW was no longer pursuing an HCP for their HPA program. However, WDFW has continued fish passage effectiveness research and in late 2018 was working to complete a 5-year progress report for the implementation and effectiveness monitoring of hydraulic projects, specifically culverts and marine shoreline armoring. Since 2007, the two studies and the literature review have been funded through sources outside of the Forest Practices Adaptive Management Program (AMP). A pilot for the Culvert Test Bed Project, funded through the National Council for Air and Stream Improvement (NCASI), was implemented in the summer of 2009. The Stream Simulation Project, funded through DNR and carried out by WDFW, was implemented on DNR state lands. The literature review for headwater fish ecology and movement was funded by WDFW and contracted with the Forest Service. Although the study designs for these studies were primarily developed through CMER, these studies are no longer considered CMER studies. The scientific results, however, may still be considered in future efforts in the AMP.

Fish Passage Effectiveness/Validation Monitoring Program: Applicable Rule Group Critical Questions with Associated Research Projects

Rule Group Critical Questions	Project Names
Are the corrective measures effective in restoring fish passage for all life history stages?	
<i>What is fish passage capability (e.g., probability of passage) through culverts under different flow and slope conditions for native headwater species and life stages?</i>	Formerly proposed CMER study: Fish Passage Capability – Culvert Test Bed Project

Program Research Questions	<i>How well does laboratory-derived passage- capability criteria apply to fish passage through culverts in the field?</i>	No project defined
	<i>Are the solutions (existing tools) we are implementing working to provide fish passage as needed?</i>	Formerly proposed CMER study: Effectiveness of Design Criteria for Stream Simulation Culverts
	<i>Are our assumptions about fish movement and fish passage in headwater streams correct?</i>	Formerly proposed by CMER: Literature review of headwater fish ecology and movement
	<i>What variables effect the rates of fish recolonization and degree of habitat utilization in stream habitats upstream from fixed anthropogenic blockages?</i>	No project defined

3.0 TYPE F RIPARIAN PRESCRIPTIONS RULE GROUP

3.1 DFC Validation Program (Rule Tool)

3.1.1 DFC Plot Width Standardization Project

Description:

In response to the DFC Target Validation Project described above, Policy requested that CMER undertake several additional tasks, including scoping a follow-up sampling effort to standardize the width of the plots used in the DFC study to address concerns raised in the ISPR regarding grouping plots by field-measured site class.

Status:

RSAG completed scoping of this document in the spring of 2006. CMER approved a scoping paper with options for follow-up sampling and simultaneously conducting aquatic habitat validation research; this paper was presented to Policy in the summer of 2006. Policy has not approved moving forward with this project.

3.2 Hardwood Conversion Program (Effectiveness)

3.2.1 Annotated Bibliography: Riparian Hardwood Conversion

Description:

The proposed bibliography was meant to assemble literature citations, including comments about the value and findings of each citation. This bibliography would describe silviculture and effects of hardwood conversion on riparian functions, including shade, stream temperature, and nutrient inputs.

Status:

Initial drafts of the annotated bibliography were considered inadequate; and after several revisions and discussions by RSAG on the scope, intent and overall usefulness of the bibliography in the adaptive management program, RSAG decided to terminate this project in 2011.

3.3 Eastside Type F Riparian Effectiveness Program

3.3.1 Groundwater Conceptual Model Project

Description:

The Groundwater Conceptual Model Project was designed to investigate the potential impacts of timber harvest on groundwater temperatures; these groundwaters could have the potential to discharge to streams and thereby affect the temperature regime of fish habitat. A draft literature review has been completed. However, the draft conceptual model developed from the original contract did not meet the expectations or objectives described by the former BTSAG to identify areas that might be highly susceptible to groundwater heating after timber harvest. CMER and the USFWS were able to make additional progress on developing the intended conceptual models; however, due to limited staffing availability and higher priorities, the models have not yet reached completion.

Status:

This project has currently been put on hold, and it is unknown whether further CMER work will occur.

4.0 UNSTABLE SLOPES RULE GROUP

4.1 Unstable Landform Identification Program

4.1.1 Landslide Hazard Zonation Project

Description:

The LHZ Project had three phases. During Phase 1, all mass wasting modules from completed watershed analyses and other information on unstable landforms, landslides, and unstable slopes were collected and compiled in a GIS database. This database has been made available for free download to the public and is used as a screening tool in the forest practices application process. During Phase 2, mass wasting modules from incomplete watershed analyses were either finished, reviewed, and added to the database or were rejected. During Phase 3, the protocol was applied at the watershed scale following a list of priority watersheds based on the presence of steep slopes and FP HCP lands.

The current results of the LHZ Project are as follows: For Phase 2, there were 27 watershed administrative units (WAUs) identified as priorities for review and completion by the LHZ Project. Eighteen WAUs were found to be of acceptable standard, and nine WAUs were rejected during LHZ review because the mass wasting modules were incomplete or of substandard quality. During Phase 3, 39 LHZ projects (WAUs and/or State Land blocks) were completed. The LHZ Project was suspended in 2009 due to budgetary constraints, leaving an additional 33 of the WAUs on the Phase 3 priority list, although some were partially completed within State Land blocks. This phase may be discontinued in the future pending the results of the Unstable Slopes Criteria Project.

Status:

Phase 1 — Complete

Phase 2 — Complete (with nine WAUs rejected)

Phase 3 — Suspended

4.2 Mass Wasting Effectiveness Monitoring Program

4.2.1 Mass Wasting Landscape-Scale Extensive Monitoring Project

Description:

This project will be designed to evaluate trends in the number and volume (or area) of landslides over time at the watershed scale using landslide inventory methods similar to those of watershed analysis. In broad terms, the trend monitoring will include sites that sample statewide variability in the factors that control landslide occurrence. These sites will consist of tracts containing both FP HCP-regulated lands and other forestlands under no or less extensive management (representative of natural or background conditions). Landslide rates and volume fluxes from both will be compared. Data to infer status and trends may consist of an inventory of landslides using data collected through the LHZ Project, complemented with aerial photography and maps of terrain, topography, forest cover, and road networks. Once this project is prioritized, UPSAG will work towards designing a study that can isolate the mass wasting trends associated with the forest practices rules from the dynamic noise of the natural system. [This project was a Clean Water Act Milestone that was subsequently eliminated due to the infeasibility of the project.](#)

Status:

Preliminarily scoped and on hold because it is currently considered to be infeasible.

4.2.2 Mass Wasting Buffer Integrity and Windthrow Assessment Project

Description:

This project will be designed to test the effect of windthrow in mass wasting leave areas on overall landslide rates. One school of thought suggests that mass wasting leave areas are especially prone to windthrow. If that is true, then mass wasting leave areas may be counterproductive for reducing sediment load to streams. However, downed timber from windthrow has been documented as being effective at slowing the rate of sediment movement on the hillslope. How these two divergent effects affect actual sediment yield to streams is not known.

Status:

There has been no action on this project. In 2012, Policy requested that CMER further investigate the potential for windthrow on FP HCP lands for projects listed in the Work Plan. UPSAG recommends removing this project from the Work Plan in favor of focusing on more viable studies or incorporating it in the RSAG work plans.

5.0 WETLANDS PROTECTION RULE GROUP

5.1 *Forest Roads and Wetlands Program*

5.1.1 *Wetlands Mitigation Effectiveness Project*

Description:

The Wetlands Mitigation Effectiveness Project will answer the question of whether the current forest practices road construction rules are effective at preventing net losses to wetland functions. Also, studies may be needed depending upon the frequency of mitigation sequence occurrences in forest practice activities. Documentation of how often and what types of wetlands are being impacted by road construction and mitigation sequences are not readily available.

This project was initially scoped as a single study with multiple phases. After CMER review, it evolved into four projects that make up the Forest Roads and Wetlands Program. The projects include the following: 1) Development and testing of site selection, data collection, and data analysis methods, 2) A pilot study to refine and finalize the field methods developed in the first project; the study is intended to test the usefulness of using FPA maps to identify wetlands in site selection, and test the feasibility of using remote sensing tools (LIDAR, aerial photography, etc.) to identify and classify wetlands, 3) A statewide survey in which the tested and finalized methods will be used to describe and quantify forest road and wetland interactions, and assess and rank risks to wetland functions from specific road construction/maintenance activities, and 4) Further actions to build on the results of the statewide study and directly test whether following the “wetland mitigation sequence” when constructing or maintaining roads in or near wetlands prevents a net loss of wetland functions.

Status:

The scoping document was approved by CMER in June 2008. The study design for the pilot project was developed and CMER review was initiated in the spring of 2010. The review generated a lot of discussion on several of the project’s design elements as well as some of the basic questions being addressed by the project. As a result, WetSAG set aside implementing the Wetlands Mitigation Effectiveness Project and instead conducted a Forest Practices and Wetlands Systematic Literature Review in 2014. In the future, Policy would like WetSAG to revisit this study if the practice of roads mitigation pertaining to wetlands becomes more common.