

PROJECT CHARTER

*Type N Experimental Buffer Treatment Project in Hard Rock Lithologies –
Phase III
September 2021
Version 1.0*

PROJECT CHARTER OVERVIEW

The purpose of the Project Charter is to describe the project and give the Project Manager and the Project Team the authority to begin utilizing program resources and spending allocated project funds (CMER Protocols and Standards Manual (PSM) Chapter 7, section 4). In general, Project Charters should be brief and updated as needed as the project is implemented to accurately, reliably, and concisely communicate the projects' basic elements and objectives. When substantive changes are considered necessary, which amend the scope of the project (i.e. study design, budget, or schedule), the charter should to be updated (version #2, #3, etc.) to communicate those changes.

PROJECT CHARTER APPROVAL DATES

CMER Approval- Policy
Approval-

OVERSITE COMMITTEE

Landscape and Wildlife Scientific Advisory Group (LWAG)

PROJECT TEAM MEMBERS

Aimee McIntyre, WDFW (PI) Lori
Clark, DNR (PM)
Reed Ojala-Barbour, WDFW (PI)
A.J. Kroll, Weyerhaeuser
Jay Jones, Weyerhaeuser

PROBLEM STATEMENT

This charter describes monitoring for amphibian demographics as a part of the Type N Experimental Buffer Treatment Project in Hard Rock Lithologies (hereafter, Hard Rock Study). The Hard Rock Study design was approved by Independent Scientific Peer Review (ISPR) and CMER in 2005. The study design was developed and approved prior to the requirement for a scoping document. The study is a BACI (Before-After Control-Impact) design that compares buffer effectiveness of the current Forest Practices (FP) Rules for non-fish-bearing perennial

streams (Type Np Waters) to buffer alternatives, including no buffer in the Riparian Management Zone (RMZ) and a RMZ buffer along the entirety of the Type Np Water length. These alternative riparian buffer treatments (FP, 0%, and 100% buffers, respectively) were compared to references that were not harvested during the study period. During Phase I of the Hard Rock Study, pre-harvest data were collected 2006-2008, harvest implementation with alternative riparian buffer treatments was implemented spring 2008 through summer 2009, and post-harvest sampling began immediately after harvest for two or more years from 2009-2011. Findings for Phase I are reported on in McIntyre *et al.* (2018). For Phase II of the Hard Rock Study, additional data were collected from 2011 through 2018. The report outlining those findings (McIntyre et al. 2021) was approved by ISPR and CMER in July 2021. Currently CMER is working on the response to the Six Questions document and the formal Findings Report is anticipated to be presented to TFW Policy in October 2021 (pending approval of the Six Questions). The current work described herein (proposed as Phase III) is a continuation of previous work to include data collection for amphibian demographics for a discrete sampling period 14 and 15 years post-harvest (summer 2022 and 2023). The Forest Practices Board approved the funding to support this work in their 2021-2023 Biennial Budget.

PURPOSE STATEMENT

Results from the Hard Rock Study – Phase II suggested significant declines in Coastal Tailed Frog densities in all riparian buffer treatments in the 7- and 8-years post-harvest (e.g., a 65%, 93%, and 84% decline in stream network-wide Coastal Tailed Frog larval density in the 100%, FP, and 0% treatments, respectively). These findings were contrary to the results for the two years post-harvest (i.e., Phase 1). There was also a delayed negative response detected for torrent salamanders in the FP treatment in Phase II (i.e., 64% decline in stream network-wide density). One of the focal goals of the Forest Practices Rules is to provide compliance with the Endangered Species Act (ESA) for aquatic and riparian-dependent species, including Forests and Fish-designated stream-associated amphibians. As such, study PIs propose additional data collection for stream-associated amphibians and other relevant co-variate data to evaluate continued trends in amphibian populations.

PROJECT OBJECTIVES

This project is identified as a Clean Water Assurance (CWA) Milestone. This Effectiveness Study evaluates the effectiveness of the FP Habitat Conservation Plan (HCP) riparian buffer prescription for westside Type N streams. The study compared the current rule to buffer alternatives that provide more and less protection within the RMZ, and unharvested reference sites. Effectiveness was evaluated in terms of whether Forest Practices rules for Type N Waters produce forest conditions that achieves Resource Objectives identified in Schedule L-1, Appendix N of the FP HCP. This study directly informs two of the four Forests and Fish Report (FFR) goals, including (1) to support the long-term viability of stream-associated amphibians and (2) to meet or exceed water quality standards. The proposed Phase III work directly addresses only the first of these FFR goals.

CRITICAL QUESTIONS

1. How do two other buffers compare with the forest practices Type N prescriptions in meeting resource objectives?
2. Are riparian processes and functions provided by Type N buffers maintained at levels that meet FP HCP resource objectives and performance targets for shade, stream temperature, LWD recruitment, litter fall, and *amphibians*? (only amphibian response is evaluated in this work –
Phase III)
3. How do stream-associated amphibian populations respond to the Type N prescriptions over time?
4. Is stream-associated amphibian population viability maintained by the Type N prescriptions?

CMER RULE GROUP AND PROGRAM

Type N Riparian Prescriptions Rule Group – Type N Riparian Effectiveness Program
 Type N Riparian Prescriptions Rule Group – Type N Amphibian Response Program

PROJECT DELIVERABLES AND PROJECT TIMELINE

Task	Deliverable	Responsible Team Member	Estimated Completion Date
Study Design	Document	Hayes	July 2005*
Charter	Document	McIntyre	November 2021
Project Management Plan	Document	McIntyre	Spring 2022
Field team hiring (lead)	Job notice	McIntyre	Winter 2022
Field team hiring (techs)	Job notices	McIntyre	Spring 2022
Field season summer 2022	Database	Ojala-Barbour	December 2022
Field season summer 2023	Database	Ojala-Barbour	December 2023
Field data analyzed		McIntyre	December 2024
Final Report draft	Document	McIntyre	June 2025
Final Report approval	Document	McIntyre	June 2026

* The Hard Rock Study design was approved by Independent Scientific Peer Review (ISPR) and CMER in 2005.

BUDGET

Estimated Budget by Fiscal Year			
FY22	FY23	FY24	FY25
\$142,800	\$304,500	\$300,300	\$82,950

PROJECT TEAM ROLES AND RESPONSIBILITIES

Name, Title, Affiliation, Contact Info	Roles and Responsibilities
Heather Gibbs, Project Manager, DNR	<ul style="list-style-type: none"> • Monitors project activities and the performance of the Project Team • Communicates progress, problems, and problem resolution to the Adaptive Management Program Administrator (AMPA), CMER, and LWAG • Works with LWAG/CMER, and Project Team to manage Project Charter and other managing documents, and keeps them updated • Works with the AMPA, LWAG/CMER, and Project Team to monitor contract performance, and provide input on budgeting, schedule, scope changes, and contract amendments • Works with LWAG, CMER, and Project Team to resolve problems and build consensus • Works with PI and Project Team to develop interim and final draft reports • Ensures communication between team members is clear, concise, and consistent • Coordinates technical reviews and responses in a timely fashion • Facilitates archiving of data and documents • Ensures that contract provisions are followed • Provides direction and support to the Project Team to achieve clear and specific scopes of work, schedules, and budgets within approved contracts • Maintains sole responsibility for all aspects of project management even if other individuals are completing or helping complete parts of the project
Aimee McIntyre, Research Scientist/Principal Investigator, WDFW	<ul style="list-style-type: none"> • Executes the technical and scientific components of the project • Provides materials needed by the PM • Prepares quarterly summary and progress reports of project status • Conducts field data collection, hires staff and purchases supplies and equipment to support data collection • Develops summaries and conducts statistical analyses to inform Final Report development • Leads in the development and writing of the Final Report and Six Questions for Policy • Presents study progress and/or findings to LWAG, CMER, and Policy • Communicates project status and issues to the PM and Project Team • Coordinates project meetings as needed

Reed Ojala-Barbour, Wildlife Biologist/Principal Investigator, WDFW	<ul style="list-style-type: none">• Supports the technical and scientific components of the project• Supports field data collection and database management• Develops summaries and conducts statistical analyses to inform Final Report development• Supports development and writing of the Final Report• Provides technical expertise for successful implementation of project components• Assists with writing and review of Final Report and Six Questions for Policy • Assists with communicating project information to LWAG and CMER as needed.• Participate in project meetings and conference calls.
Project Team Members	<ul style="list-style-type: none">• Supports the technical and scientific components of the project• Provides technical expertise for successful implementation of project components • Assists with review of Final Report and Six Questions for Policy• Participate in project meetings and conference calls.

AUTHORIZATION

The Washington Forest Practices Board (Board) has empowered the CMER committee and the TFW Policy committee to participate in the Adaptive Management Program (AMP) (WAC 22212-045(2)(b)). CMER is responsible for completing technical information and reports for consideration by TFW Policy and the Board. CMER has been tasked with completing a programmatic series of work tasks in support of the AMP; these tasks are outlined in CMER's biennial work plan approved by TFW Policy and the Board.

RECOGNITION OF SUPPORT

Committee	Date of Acceptance	Reference
LWAG	9/1/2021	meeting minutes
CMER		meeting minutes
TFW Policy		meeting minutes

REFERENCES

McIntyre, A.P., M.P. Hayes, W.J. Ehinger, S.M. Estrella, D.E. Schuett-Hames and T. Quinn (technical coordinators). 2018. *Effectiveness of experimental riparian buffers on perennial non-fish-bearing streams on competent lithologies in western Washington*. Cooperative Monitoring, Evaluation and Research Report CMER 18-100, Washington State Forest Practices Adaptive Management Program, Washington Department of Natural Resources, Olympia, WA.

McIntyre, A.P., M.P. Hayes, W.J. Ehinger, S.M. Estrella, D.E. Schuett-Hames, R. OjalaBarbour, G. Stewart and T. Quinn (technical coordinators). 2021. *Effectiveness of experimental riparian buffers on perennial non-fish-bearing streams on competent lithologies in western Washington – Phase 2 (9 years after harvest)*. Cooperative Monitoring, Evaluation and Research Report CMER 2021.03.23, Washington State Forest Practices Adaptive Management Program, Washington Department of Natural Resources, Olympia, WA.
