WESTSIDE TYPE F RIPARIAN PRESCRIPTION EFFECTIVENESS PROJECT PILOT STUDY

PROJECT CHARTER

Project Charter 1[1] - Problem Statement, Critical Questions, and Objectives

Project Team members: *Doug Martin, *Rebecca Flitcroft, Dave Schuett-Hames, Emily Davis and Teresa Miskovic (PM)

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Problem and Purpose Statements

Riparian prescriptions and rules are very different from Eastern to Western Washington for Type F (fish-bearing) waters. Currently no Westside Type F Effectiveness Studies are being conducted by the Cooperative Monitoring Evaluation and Research (CMER) committee. While CMER has tested the effectiveness of Eastside Type F riparian prescriptions and the Bull Trout Overlay All Available Shade Rule, the current Westside rule remains based on untested assumptions that riparian prescriptions are functioning as intended. There is therefore a need for a Westside Type F Riparian Prescription Effectiveness study to fill this knowledge gap and compliment the Eastside Type F Effectiveness Study results. However, little is known about the distribution of stand conditions in Westside Type F streams under the current suite of prescription variants. Before such a Type F effectiveness study can be implemented, a Pilot Study is needed to assess the distribution of stand conditions and prescription variants. The Pilot Study will produce information needed to focus and design the Westside Type F Riparian Prescription Effectiveness Before After Control Impact (BACI) study.

The goal at the conclusion of the Pilot study is to have information including:

- The level of riparian functions associated with the Type F prescriptions, including data on post-harvest large wood recruitment, shade, and sediment delivery,
- Riparian stand conditions associated with the Type F prescriptions, including stand mortality, density, basal area, and the proportion of sites currently on trajectory to meet the Desired Future Conditions (DFC) target of 325 ft/acre of basal area at 140 years,
- The frequency, magnitude and distribution of windthrow and its effects on stand structure, buffer tree mortality rates and riparian functions,
- The relative influence of differences in site conditions and geographic location on the above.

[1] The purpose of the charter is to communicate project needs (goals, resources, budget, schedule, etc.). The charter should convey an appropriate level of detail to understand the primary concepts of the project to ensure sustainability overtime. 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.
*Approved by CMER (12-17-2013).

CMER Rule Group and Program

This project is part of the CMER Type F Riparian Prescriptions Rule Group and the Westside Type F Riparian Effectiveness Program.

Project Critical Questions and Objectives (CMER 2019-2021 Biennium Work Plan)

The Westside Type F Riparian Prescription Effectiveness Project is expected to address the following Westside Type F Riparian Effectiveness Program critical questions from the CMER work plan (CMER 2019-2021 Biennium Work Plan). It is not intended that the pilot phase of the project will answer these questions, but it is anticipated that the BACI phase of the study will.

1. *How do the *RMZ and no-*RMZ harvest prescriptions affect riparian stand characteristics and riparian functions?*
2. *How do the characteristics of riparian forest stands and associated riparian functions in areas with *RMZ and without *RMZ harvest change over time?*
3. *Do riparian forest stands in areas with *RMZ and without *RMZ harvest remain on trajectory to achieve DFC targets?*
4. *How do physical stream characteristics and processes respond to changes in riparian functions in areas with* RMZ and without *RMZ harvest?*
5. *Do physical stream characteristics and processes meet performance targets?*
   **RMZ refers to the inner zone.*

Additional critical questions and objectives that were developed by the Technical Writing and Implementation Group (TWIG) are:

6. *How do stand conditions change over time (i.e. forest growth, mortality regeneration) following application of the Westside Type F RMZ inner zone harvest prescriptions, and do stands remain on trajectory to achieve DFC targets?*
7. *What level of riparian functions are provided by stands following application of the Westside Type F riparian prescriptions allowing inner zone management?*
8. *What level of riparian functions are provided by stands where no RMZ inner zone management occurred under Westside Type F riparian prescriptions?*
9. *Do riparian functions meet FP HCP resource objectives and performance targets for shade, stream temperature, LWD recruitment, and litter fall?*

The overall goal of the pilot phase is to produce information needed to focus and design the BACI phase of the project. This Pilot Study will assess riparian stand conditions and selected riparian functions across a wide range of prescription variants and site conditions. Given the complexity of Type F rules and the variability in application across the landscape, there is a need to better understand how the rules influence riparian forest functions. The Pilot Study will provide a coarse-level assessment of current riparian conditions that focuses on addressing scientific uncertainty surrounding their sensitivity to prescription variants. At the conclusion, CMER will have information for a sample of the Westside Type F prescription variants including:

- the level of riparian functions associated with the prescriptions, including data on post-harvest large wood recruitment, shade, and sediment delivery,

- riparian stand conditions associated with the prescriptions, including stand mortality, density, basal area, and the proportion of sites currently on trajectory to meet DFC target of 325 ft2/acre of basal area at 140 years,
- the frequency, magnitude and distribution of windthrow and its effects on stand structure, buffer tree mortality rates and riparian functions,
- the relative influence of differences in site conditions and geographic location on the above.

Tangible Deliverables

The work in this charter will be considered complete when the following deliverables have been completed:

- Site screening and landowner access obtained for approximately 150 sites.
- Site validation completed per Field Methods Manual to obtain 110 valid sites.
- Data collection completed per Field Methods Manual at 110 sites.
- Field data collection and data QA/QC'd per approved QA/QC methods.
- QA/QC'd database with data from 110 sites that includes metadata and spatial data.
- Final CMER approved report.

Project Management Team Roles and Responsibilities

Position (Role)	Roles and Responsibilities
Project Manager: Teresa Miskovic, Adaptive Management Project Manager, DNR	• Overall as a lead of the project team the project manager is primarily responsible for all aspects of project management which include: planning, maintaining project accountability, project communication, facilitation of administrative tracking, and coordination with the Adaptive Management Program Administrator (AMPA). • Contract, schedule, budget, and scope of work development and approval. • Maintains the scope of work as specified in the project charter, scope of work, and contract. • Approves the expenditure of funds from the budget (signs invoices) when deliverables are approved. • Ensures West Fork and Project PIs complete tasks on time and within budget and ensures contract obligations are met. • Facilitates review process of final report. • Communicates project progress, problems, and problem resolution to the AMPA, CMER, Project Team, and RSAG. • Obtains landowner permission and access permits for viable sites identified and provided by Principal Investigators.
Principal Investigators: Dave	• Conduct office screening per Study Plan to obtain

Schuett-Hames and Emily Davis, NWIFC	approximately 150 sites to provide to PM to obtain landowner permission and access permits. • Once access permits obtained, provide necessary site information to contractor for site validation and data collection. • Lead in developing, writing, and updating project Field Methods Manual, QA/QC plan, and final report. • Lead contact for technical and scientific questions/issues. • Assist with development of project charter, communication plan, and implementation plan. • Lead field crew training for implementation of data collection. • Conduct QA/QC of data provided by contractor. • Perform data analysis and final report writing. • Lead author of findings report six questions. • Respond to comments by reviewers of final report and edit final report accordingly. • Present technical findings to RSAG, CMER, and TFW Policy as necessary. • Communicate to PM concerns or issues that may arise throughout project implementation.
Contractor: West Fork Environmental	• Meet obligations of project contract and scope of work within budget and schedule. • Complete site validation per approved Field Methods Manual to obtain 110 viable sites. • Layout site plots and collect data per approved Field Methods Manual at 110 sites. • Provide weekly documentation to PM and PIs of site validation, layout and preliminary data during field season. • Provide final QA/QC'd database of all data collected. Includes GPS data and metadata. • Provide quarterly progress reports. • Communicate technical issues to PIs and PM. • Communicate contractual or budget issues to PM.
Project Team members: Doug Martin: Martin Environmental, Rebecca Flitcroft: U.S. Forest Service, PNW Research Station	• Assist with finding solutions to technical issues that arise during project implementation. • Provide expertise as necessary for successful completion of project. • Assist with writing technical documents and project charter, implementation plan, communication plan, and findings report six questions. • Provide constructive and timely feedback. • Assist as needed with communicating project information to RSAG and CMER.

	• Provide statistical expertise for data analysis and final report writing. • Provide timely review and constructive feedback on project documents and final report. • Participate in project meetings and conference calls as needed.

Schedule

The following are tasks, responsible team member for completing task, and estimated completion date.

Task	Responsible Team Member	Estimated Completion Date
Site Selection and Access	PIs and PM	June 1, 2019
RSAG approved Project Management Plan and Communication Plan	PM	February 28, 2019
Develop QA/QC Plan (RSAG approval not required)	PIs	March 30, 2019
Conduct QA/QC for site validation	PIs	Ongoing
Conduct QA/QC for data collection and preliminary data	Contractor and PIs	June 30, 2019
Conduct QA/QC of database	Contractor and PIs	June 30, 2019
Site Validation and Data Collection	Contractor	September 31, 2019
Data analysis and draft final report	PIs and Project Team members	February, 28, 2020
RSAG approved final draft report	RSAG and PI	May 13, 2020
CMER approved final draft report	CMER and PI	July 23, 2020
ISPR of draft report	ISPR	December 2020
Incorporation of ISPR comments	PI and Project Team	March 2021
ISPR concurrence with final report changes	ISPR	May 2021
CMER approval of final report	CMER	July 2021
Findings report drafted and approved by RSAG	PI, Project Team, RSAG	August 2021
CMER approval of findings report	CMER	September 2021

Budget

Timeframe	Budget	Phase
June 1, 2018 – June 30, 2019	$228,000*	Site Validation and site layout for 110 sites. Data collection initiated for first 55 sites
July 1, 2019 – June 30, 2020	$125,000	Data collection of second 55 sites. Data analysis and report writing/review.

*Higher costs than originally budgeted because site validation and site layout are being completed separate from data collection, which decreases efficiency and increases costs. This will allow us to maximize the short window for data collection as it has to be collected with "leaf on".

Authorization

The Washington Forest Practices Board has empowered the Cooperative Monitoring Evaluation and Research Program (CMER) and the TFW policy committee (Policy) to participate in the Adaptive Management Program (AMP) (WAC 222-12-045(2)(b)). CMER is responsible for completing technical information and reports for consideration by Policy and the Forest Practice 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 annual work plan already approved by the TFW Policy committee and the Forest Practices Board. This project has been listed under the Westside Type F Riparian Effectiveness Program in CMER's work plan.

Recognition of Support

This charter was approved by the AMPA on _____.
Date