PROJECT CHARTER

Forested Wetlands Effectiveness Project

August 2021

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

April 23, 2015
May 25, 2021

OVERSIGHT COMMITTEE

Wetland Science Advisory Group

PROJECT TEAM MEMBERS

Jenelle Black (CMER Science staff), Debbie Kay (Suquamish Tribe), Harry Bell (Washington Farm Forestry Association), Amy Yahnke (WA Department of Ecology), Eszter Munes (Department of Natural Resources)

PROBLEM STATEMENT

The Forested Wetland Effectiveness Project (FWEP) is a keystone program within the WetSAG's workplan as it provides a scientific foundation from which to evaluate how forest harvest undertaken under current forest practice rules changes forested wetland hydrology and ecology. CMER and Policy recommended prioritizing this program following a WetSAG field trip with Ecology Wetlands Program staff that raised concerns about the potential effects of timber harvest on the function of forested wetlands and their hydrologically connected streams. Little is known about the effects of harvest on forested wetland hydrology and ecology, and currently the Forest Practices rules require minimal soil disturbance within forested wetlands but no buffers.

PURPOSE STATEMENT

The FWEP projects will look at the effectiveness of forest practices prescriptions to protect, maintain, and restore aquatic resources, namely water quality and wetland hydrologic and ecological functions (CMER 2021). It will be evaluated to determine if they achieve the FPHCP goal of no net loss of functions of those wetlands by half of a timber rotation cycle while meeting water quality standards (FPHCP).

PROJECT OBJECTIVES

The FWEP has two objectives:

1. To examine how well current forest practices rules meet the performance target of a no net loss of wetland functions by half of a timber rotation cycle (≥ 20-years), and Washington State Department of Ecology water quality standards.

2. To develop study designs that, when implemented, will yield information on the changes in wetland functions and associated aquatic resources due to the implementation of forest practices under existing forest practices rules.

CRITICAL QUESTIONS

The Forested Wetland Effectiveness Project is designed as a two-part, scientific investigation into how forested wetlands and their connected waters are affected by forest practices, as presently implemented under Washington State DNR's Forest Practices Rules.

The Chronosequence study is the predecessor study to a BACI study on how forested wetlands recover from harvest and will help inform how disturbance associated with forest harvest[1] is affecting forested wetland hydrology, habitat, and water quality over time. (. The Chronosequence substitutes studying multiple sites at different development states post-harvest (recently undisturbed, two, ten, and twenty years) in lieu of studying a set of sites for half of a timber harvest rotation (~20 years) following timber harvest. It strives to answer two sets of research questions derived from the CMER work plan's critical questions (Hough-Snee et al. 2019):

1. How does forested wetland hydrology change over time following post-harvest forest stand development? Specifically:
   a. How does the hydrology of recently harvested forested wetlands compare to the hydrology of recently undisturbed second-growth forested wetlands?
   b. How does the timing, duration, and magnitude of flow and material transport differ between recently harvested and recently undisturbed[1] second-growth forested wetlands?

2. How do forested wetland vegetation and canopy-mediated[1] habitat conditions change over time following post-harvest forest stand development? Specifically:
   a. How does recently harvested forested wetland vegetation composition compare to recently undisturbed second-growth forested wetland vegetation over time?
   b. Do canopy and vegetation-mediated habitat attributes (e.g., inundation duration, soil, and wetland temperature, etc.) converge between recent post-harvest forested wetlands and recently undisturbed second-growth forested wetlands over time?

The BACI study has two sets of related critical questions (Hough-Snee et al. 2019):

1. What are the effects of forest practices on hydrologic regimes, water quality, and terrestrial and aquatic plant and animal habitats in forested wetlands and their connected downstream waters linked by surface or subsurface flow? What are the magnitude and duration of these effects?
   a. How does timber harvest in and around forested wetlands alter processes that influence hydrologic regimes in those wetlands, in downstream waters and the connectivity between them?
   b. How does timber harvest in and around forested wetlands alter processes that influence water quality in those wetlands and downgradient waters?
   c. How does timber harvest in and around forested wetlands alter processes that influence plant and animal habitat functions in wetlands, in connected waters, and surrounding uplands?
2. How well do current Forest Practices Rules in forested wetlands meet FPHCP (Schedule L-1, Appendix N) aquatic resource objectives and performance targets and the goal of no net loss of functions of those wetlands by half of a timber rotation cycle while meeting water quality standards?

CMER RULE GROUP AND PROGRAM

The Forested Wetlands Effectiveness Project is part of the CMER Wetlands protection rule group.

[1] See: "Forested Wetlands Effectiveness Project: Chronosequence Study Design"

FWEP CHRONOSEQUENCE STUDY PROJECT DELIVERABLES AND PROJECT TIMELINE

Estimated dates of completion are for the Chronosequence phase of FWEP. Timeline for BACI deliverables will be forthcoming in a future version of the project charter.

		Estimated Dates of Completion (Yr - Mo)						
Project Milestones	**Responsible Party**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**
Study Development								
Charter - updated	WetSAG	21-Sept						
Site Selection and Data Management Document	Project Team	21-Sept						
Field Implementation								
RFQQ for field implementation	Project Manager	21-Oct						
Site Selection and Field Reconnaissance	Project Team/ Contractor		22-Apr					
Data Collection	Contractor			25-May				
QA/QC	PI/ Contractor			25-Dec				
Data Analysis and Reporting								
Data analysis	PI/Contractor			25-Dec				
Final Report - WetSAG approved	PI/Contractor					26-Apr		
Final Report - CMER approved	PI/Contractor					26-Jun		
Final Report - ISPR approved	PI/Contractor						27-May	
Six Questions Document to Policy	WetSAG							27-Sep
Publication to DNR and CMER Websites	Project Manager							27-Oct
Written and verbal updates to CMER, Policy, and the Board	Project Manager	As needed						

FWEP Chronosequence Study BUDGET

Budget/Cost Items	Expenditures FY17 - FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	Total
Service Contracts (PSCs)	**$0**	**$0**	**$156,176**	**$180,555**	**$163,305**	**$155,023**	**$85,000**	**$35,000**	**$0**	**$775,060**
Field implementation - training, planning, field reconnaissance, instrumentation	$0	$0	$156,176	$0	$0	$0	$0	$0	$0	$156,176
Field implementation - meetings, travel, data collection and management	$0	$0	$0	$180,555	$163,305	$155,023	$0	$0	$0	$498,883
Data analysis and reporting	$0	$0	$0	$0	$0	$0	$85,000	$35,000	$0	$120,000
Project Team (PSC)	**$165,274**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$165,274**
Paul Adamus (Adamus Resource Consultant, Inc.)	$6,475	$0	$0	$0	$0	$0	$0	$0	$0	$6,475
John Van Sickle (Environmental Statistics)	$6,034	$0	$0	$0	$0	$0	$0	$0	$0	$6,034
Kevin Bladon (Oregon State University)	$3,400	$0	$0	$0	$0	$0	$0	$0	$0	$3,400
Nate Hough-Snee (Meadow Run Environmental/Four Peaks Environmental Science and Data Solutions)	$149,365	$0	$0	$0	$0	$0	$0	$0	$0	$149,365

Supply and Expense (On-going)	**$0**	**$0**	**$0**	**$10,000**	**$10,000**	**$10,000**	**$0**	**$0**	**$0**	**$30,000**
Science Technician Supplies (Small Supplies, Tools)	$0	$0	$0	$10,000	$10,000	$10,000	$0	$0	$0	$30,000
Supply and Expense (One-time)	**$0**	**$0**	**$174,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$174,000**
Data Collection devices/Equipment Manufacture/Equipment Purchase	$0	$0	$174,000	$0	$0	$0	$0	$0	$0	$174,000
FY Total	**$165,274**	**$0**	**$330,176**	**$190,555**	**$173,305**	**$165,023**	**$85,000**	**$35,000**	**$0**	**$1,144,333**

FWEP Chronosequence Study PROJECT TEAM ROLES AND RESPONSIBILITIES

Name, Title, Affiliation, Contact Info	Roles and Responsibilities
Project Manager: • Eszter Munes (WA Department of Natural Resources) eszter.munes@dnr.wa.gov	• Monitor project activities and the performance of the Project Team. • Communicates progress, problems, and problem resolution to the Adaptive Management Program Supervisory Project Manager and Administrator (AMPA), and CMER. • Work with WetSAG/CMER, and Project Team to help develop Project Charters and Project Plans, and keep them updated as needed over time. • Work with WetSAG, CMER, and Project Team (including PI, contractors, and other Team members) to resolve problems and build consensus. • Work with PI and Project Team members to develop interim and final reports. • Ensure communication between all team members is clear, concise, and consistent. • Maintain contact and process access agreements, once site access is granted. • Ensure coordination between WetSAG/CMER, Project Team and landowners. • Coordinate all technical reviews and responses in a timely fashion. • Facilitate archiving of all data and documents. • Works with PI to manage documents on Microsoft Teams. • Work with the AMPA, WetSAG/CMER, and Project Team to develop and review proposals, RFPs or RFQQs, review contractor proposals, monitor contract performance, and provide input on budgeting, schedule, scope changes, and contract amendments. • See that contract provisions are followed. • Provide direction and support to the Project Team to achieve clear and specific scopes of work, schedules, and budgets within approved contracts. • Communicate and/or authorize communication with all project-related contractors. • Maintains sole responsibility for all aspects of project management even if other individuals are completing or helping complete parts of the project.
Principal Investigator(s): *CMER Wetland Scientist (FY22)*	• Attends WetSAG and Project Team Meetings. • Oversees the technical aspects of the project including protocol refinement, site selection, data collection, analysis, and reporting. • Works with PM and field manager in overseeing data collection by field crew.

	• Oversees and conducts data analysis and QA/QC of data provided by field staff. • Leads in developing, writing, and preparation of the final report. • Lead author of findings report. • Responds to comments by reviewers of reports. • Prepares quarterly summary and progress reports of project status, as needed. • Presents technical findings to WetSAG, CMER, TFW Policy, and the Board as necessary. • Communicates concerns or issues that arise with PM.
Project Team members: • Harry Bell (WFFA, WetSAG co-chair) harry@greencrow.com • Debbie Kay (Suquamish Tribe, WetSAG co-chair) dkay@Suquamish.nsn.us • Jenelle Black (CMER Scientist) jblack@nwifc.org • Amy Yahnke (WA Dept. of Ecology) ayah461@ECY.WA.GOV	• Complete the Site Selection and Data Collection Document • Attends Project Team and WetSAG meetings. • Provides expertise as necessary for successful completion of project. • Assists PI for addressing technical and scientific questions/issues. • Assists PI with communications, data analyses, and reporting, as needed. • Provides timely review and constructive feedback on project documents and the final report. • Participates in completing site selection. • May assist contractor and PI with training of field crews. • Helps implements QA/QC protocol.
Field Manager: *TBD, may be contracted*	• Works with PI to coordinate field activities. • Provides primary oversight of field crew schedules, logistics, and needs. • Works with PI to provide training to field crews. • Communicates implementation status, changes, and needs to PI and PM. • Provides expertise as necessary for successful completion of project. • Provides timely review and constructive feedback on project documents and the final report. • Participates in project meetings and conference calls, as needed.
Field Crew: *TBD, may be contracted*	• Collects and QA/QCs field data. • Responsible for field gear and equipment. • Transmits data to Field Manager and PI according to designated schedule. • Participates in project meetings and conference calls, as needed.
Technical Lead Staff: *TBD, may be contracted*	• In coordination with the PI, oversees and conducts QA/QC of data provided by field staff. • Conducts project data summaries and analyses. • Assists PI with reporting. Helps prepare interim and final reports.

	• Responds to comments by reviewers of reports. • Creates spatial and tabular databases for all project data. • Participates in project meetings and conference calls, as needed.

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 222-12-045(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
WetSAG	08/09/2021	NA
CMER	08/24/2021	meeting minutes
TFW Policy		meeting minutes

REFERENCES

Cooperative Monitoring Evaluation and Research Committee (CMER), 2021. 2021-2023 Biennium CMER Work Plan. Washington Depart of Natural Resources, January 2021.

Cooperative Monitoring Evaluation and Research Committee (CMER), 2017. Protocols and Standards Manual (PSM).CMER Review 5 06_19_2017 Final Draft, Chapter 7. Section 4. Department of Natural Resources, 2017.

Hough-Snee, Nate, Adamus, Paul, Beckett, Leah, Bladon, Kevin, Haemmerle, Howard, Moore, Dan, Sobota, Dan, Van Sickle, John, 2019. Forested Wetlands Effectiveness Project: Chronosequence Study Design. Cooperative Monitoring, Evaluation, and Research Committee (CMER), Washington State Department of Natural Resources, December 2019.

WAC 222-12-045. April 2013. http://apps.leg.wa.gov/wac/default.aspx?cite-222-12-045.

Washington Department of Natural Resources, 2005. Final Forest Practices Habitat Conservation Plan. Washington Department of Natural Resources, Forest Practices Program, Olympia, WA. http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesHCP/Pages/fp_hcp.aspx.