# ‘PROJECT CHARTER

**Wetland Management Zone Effectiveness Monitoring Program**
**April 2022**

## 1. 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.

### OVERSITE COMMITTEE

Wetlands Science Advisory Group (WetSAG)

### PROJECT TEAM MEMBERS

Jenny Scholfield - Project Manager
Tanner Williamson - Principal Investigator
Debbie Kay
Joseph Murray
Amy Yahnke
Douglas Martin

## 2. APPROVAL DATES

| | SAG Approval Date | CMER Approval Date |
|---|---|---|
| **Charter Version 1** | **3/13/17** | **5/23/17** |
| **Charter Version 2** | **4/11/22** | **4/26/22** |
| **Charter Version 3** | **4/10/23** | |

## 3. PROJECT TITLE

Wetlands Management Zone Effectiveness Monitoring

## 4. PROBLEM STATEMENT

The Forest Practices and Wetlands Systematic Literature Review (CMER #12-1202) highlighted the lack of applied research projects focused on the effectiveness of wetland management zones (WMZs) for Type A and B wetlands for meeting the Forest and Fish aquatic resource objectives and performance targets. Forest Practices Habitat Conservation Plan (FP HCP) functional objectives under the Hydrology Resource Objective for streams and wetlands as stated in Schedule L-1 include:

- Maintain surface and groundwater hydrologic regimes (magnitude, frequency, timing, and routing of stream flows) by disconnecting road drainage from the stream network.
- Prevent increases in peak flows causing scour, and maintain hydrologic continuity of wetlands.

There are two performance targets under the Hydrology Resource Objective that include stream channels and wetlands:

- Westside: Do not allow forest management activities to cause a significant increase in peak flow recurrence intervals resulting in scour that disturbs stream channel substrates providing actual or potential habitat for salmonids.
- No net loss in the hydrologic functions of wetlands.

Adamus notes in the Wetland Research and Monitoring Strategy (2014, CMER #12-1203) that extrapolations from studies examining effects of forest practices on streams are "fraught with many interpretive difficulties." Some of these difficulties are attributed to variations in sampling and data analysis, short duration studies that would be ineffective at monitoring wetland functions, and variations in buffers from those prescribed specifically for wetlands. There is little research specific to forest practices and wetlands in the Pacific Northwest and no TFW Policy or CMER research relative to the effectiveness of forest practices WMZs for large woody debris contribution (LWD), shade, meeting water quality targets for receiving streams, or other functions. Importantly, there exist no current wetland-specific performance targets for shade or LWD. Where wetlands overlap with other aquatic resource protections (e.g., fish bearing streams) it is required to use whichever prescription that provides the most protection for the aquatic resource (WAC 222-30-020 "When these [WMZ] zones overlap a riparian management zone the requirement which best protects public resources shall apply"). Thus, this study will build upon the Forest Practices and Wetlands Systematic Literature Synthesis to further examine how the application of WMZs and BMPs for WMZ management influence the functional dynamics of water quality, and fish and wildlife habitat. However, there are no current wetland-specific functional objectives for fish and wildlife habitat.

## 5. PURPOSE STATEMENT

The purpose of the Wetland Management Zone Effectiveness Monitoring Program is to evaluate the effectiveness of WMZs for Type A and Type B wetlands in meeting the targets outlined in the FPHCP, namely no net loss of functions of wetlands when measured over the length of a harvest rotation, although some of the functions may be reduced until the midpoint of the timber rotation cycle. Similar work is being done with forested wetlands for the Forested Wetlands Effectiveness Project (FWEP).

## 6. PROJECT OBJECTIVES

This project will evaluate wetland functions to determine if the target of no net loss of hydrologic functions (e.g., connectivity, storage, timing, frequency, and routing of flows) are being achieved. Further, this project will evaluate if wetlands are achieving water quality standards, and US Clean Water Act assurance targets.
This would include informing two Schedule L-2 research questions:

1. Test whether the wetland prescriptions are effective in preventing downstream temperature increases above targets.
2. Evaluate the effectiveness of current WMZs in meeting in-stream LWD targets.

## 7. CRITICAL QUESTIONS

CMER Work Plan Critical Question

Are current Forest Practice Rules-specified wetland buffers (WMZ) for Type A and B wetlands effective at meeting the Forest and Fish aquatic resource objectives and performance targets,

and the goal of no-net-loss of functions when measured over the length of a harvest rotation, although some of the functions may be reduced until the midpoint of the timber rotation cycle?

Program Research Critical Questions

1. What are the magnitude and duration of effects of timber harvest occurring upslope of Type A and B wetlands on processes, functions, and aquatic resources within and downstream of those wetlands?
2. How effective are current forest practice wetland buffers at facilitating no net loss in wetland functions following timber harvest?

## 8. CMER RULE GROUP AND PROGRAM

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|---|---|
| **Rule Group** | Wetlands Protection |
| **Description** | Prescriptions for identifying and managing wetlands |
| **Rule Context** | WAC 222-30-010, 020… |
| **Program** | Wetland Management Zone Effectiveness Monitoring |

## 9. PROJECT DELIVERABLES AND PROJECT TIMELINE

| Task | Deliverable | Responsible Team Member | Estimated Completion Date |
|---|---|---|---|
| **1. Scoping** | | | |
| **1.1 Best Available Science (BAS)** Summarize data from existing CMER projects and review published literature to provide best available science for study context and development. | BAS Document | Project Team /PI | FY23 |
| **1.2 WetSAG.** Draft scoping document for WetSAG approval. | WetSAG approved scoping document | Project Team /PI | FY23 |
| **1.3 CMER.** CMER review, document revisions, and CMER approval | CMER approved scoping document | Project Team /PI | FY24 |
| **1.4. Prospective Six Questions.** Draft document; gain WetSAG and CMER approval | WetSAG/CMER approved Prospective Six Question document | Project Team /PI | FY24 |
| **1.5 TFW Policy.** Presentation of scoping document and Six Questions document to Policy and Policy approval | Policy approved scoping document | Project Team /PI | FY24 |
| **2. Study Design** | | | |
| **2.1 WetSAG.** Draft study design for WetSAG approval | WetSAG approved Study Design | Project Team /PI | FY24 |
| **2.2 CMER.** CMER review, study design revisions, and CMER approval | CMER approved study design | Project Team /PI | FY25 |
| **2.3** ISPR review, study design revisions, and ISPR approval | ISPR approved study design | Project Team /PI | FY25 |

## 10. BUDGET

| Budget/Cost Items | Estimated Budget by Fiscal Year* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 |
| Scoping | $0 | $0 | $0 | $0 | - | - | - | - | - |
| Study Design | - | - | - | $0 | $0 | $0 | - | - | - |
| Field Implementation | - | - | - | - | - | - | $100,000 | $360,000 | $360,000 |

| Budget/Cost Items | Estimated Budget by Fiscal Year (continued)* | | | | |
|---|---|---|---|---|---|
| | FY29 | FY30 | FY31 | FY32 | FY33 |
| Field Implementation | $360,000 | $360,000 | $360,000 | $100,000 | $45,000 |

*Budgets beyond FY22 are estimates only. CMER staff are utilized in all phases of the project but cost for their time is not included in budget estimates.

## 11. PROJECT TEAM ROLES AND RESPONSIBILITIES

| Name, Title, Affiliation, Contact Info | Roles and Responsibilities |
|---|---|
| **Project Manager (PM):**<br>Jenny Scholfield<br>Jenny.Schofield@dnr.wa.gov<br><br>WA Department of Natural Resources | • Monitor project activities and the performance of the Project Team.<br>• Communicates progress, problems, and problem resolution to the Adaptive Management Program Supervisory Project Manager and Administrator (AMPA), and CMER.<br>• Work with WetSAG/CMER, and Project Team to help develop Project Charters and Project Plans, and keep them updated as needed over time.<br>• Work with WetSAG, CMER, and Project Team (including PI, contractors, and other Team members) to resolve problems and build consensus.<br>• Work with PI and Project Team members to develop interim and final reports.<br>• Ensure communication between all team members is clear, concise, and consistent.<br>• Maintain contact and process access agreements, once site access is granted.<br>• Ensure coordination between WetSAG/CMER, Project Team and landowners.<br>• Coordinate all technical reviews and responses in a timely fashion.<br>• Facilitate archiving of all data and documents. |

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| | • Works with PI to manage documents on Microsoft Teams.<br>• 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.<br>• See that contract provisions are followed.<br>• Provide direction and support to the Project Team to achieve clear and specific scopes of work, schedules, and budgets within approved contracts.<br>• Communicate and/or authorize communication with all project-related contractors.<br>• Maintains sole responsibility for all aspects of project management even if other individuals are completing or helping complete parts of the project. |
| **Principal Investigator (PI):**<br>Tanner Williamson<br>twilliamson@nwifc.org<br>CMER Scientist | • Attends WetSAG and Project Team Meetings.<br>• Oversees the technical aspects of the project including protocol refinement, site selection, data collection, analysis, and reporting.<br>• Works with PM and field manager in overseeing data collection by field crew.<br>• Oversees and conducts data analysis and QA/QC of data provided by field staff.<br>• Leads in developing, writing, and preparation of the final report.<br>• Lead author of findings report.<br>• Responds to comments by reviewers of reports.<br>• Prepares quarterly summary and progress reports of project status, as needed.<br>• Presents technical findings to WetSAG, CMER, TFW Policy, and the Board as necessary.<br>• Communicates concerns or issues that arise with PM. |
| **Project Team Members:**<br>Debbie Kay<br>dkay@Suquamish.nsn.us<br>Squamish Tribe | • Attends WetSAG and Project Team Meetings.<br>• Provides technical support and document review as needed. |
| Joe Murray<br>abies@olypen.com<br>JMurray Forestry | • Attends WetSAG and Project Team Meetings.<br>• Provides technical support and document review as needed. |

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| Amy Yahnke<br>amy.yahnke@ecy.wa.gov<br>WA Department of Ecology | • Attends WetSAG and Project Team Meetings.<br>• Provides technical support and document review as needed. |
| Douglas Martin<br>doug@martinenv.com<br>Martin Environmental | • Attends WetSAG and Project Team Meetings.<br>• Provides technical support and document review as needed. |

**REFERENCES**

Adamus, Paul R. (2014), Effects of forest roads and tree removal in or near wetlands of the Pacific Northwest: a literature synthesis. Cooperative Monitoring Evaluation and Research Report CMER 12-1202. https://file.dnr.wa.gov/publications/bc_tfw_forestwetland_20140108.pdf

Adamus, Paul R. (2014), Wetland Research and Monitoring Strategy: Forest Practices and Wetlands. Cooperative Monitoring Evaluation and Research Report CMER 12-1203. https://www.dnr.wa.gov/publications/fp_cmer_wetlnd_2014.pdf

Cooperative Monitoring Evaluation and Research (CMER) Committee. (January 2019), 2019-2021 Biennium Work Plan. https://www.dnr.wa.gov/publications/bc_fpb_cmerworkplan_20210512.pdf

Protocols and Standards Manual (PSM). (2020), Chapter 7, Sections 4 and 6.3. https://www.dnr.wa.gov/publications/fp_cmer_psm_version_20201210.pdf