

# **PROJECT MANAGEMENT PLAN**

## **EASTSIDE TYPE N RIPARIAN EFFECTIVENESS PROJECT (ENREP)**

**February 12, 2021**

### **PROJECT MANAGEMENT PLAN OVERVIEW**

The Project Management Plan breaks down project work into logical steps to help provide a framework to efficiently allocate resources, reliably estimate project costs, and help guide schedule, budget development and project scope. Previously in the Cooperative Monitoring Evaluation and Research (CMER) Protocols and Standards Manual (PSM), this document was titled an implementation plan. The Project Management Plan documents and tracks the progress of a CMER project through its various stages. The contents of the Project Management Plan will vary depending on the type and complexity of the project. The Project Team is the primary audience for the Project Management Plan; however, Scientific Advisory Group (SAG)/CMER members are encouraged to provide feedback on the plan.

### **OVERSITE COMMITTEE**

Scientific Advisory Group - Eastside (SAGE)

### **PROJECT TEAM MEMBERS**

Timothy Link (University of Idaho), Charles Hawkins (Utah State University), William Ehinger (Dept. of Ecology), Paul Robinson (University of Idaho), Ian Hellman (University of Idaho), Daniel Nelson (Utah State University), Greg Stewart (NWIFC), Mark Teply (Mark Teply Consulting), Malia Volke (Dept. of Natural Resources) and Teresa Miskovic (Dept. of Natural Resources).

### **BACKGROUND**

In 2001, the Washington State Forest Practice Board (Board) approved a comprehensive set of new forest practice rules based on the Forest and Fish Report. One of the goals of these rules is to protect water quality, including aquatic life, in streams on non-federal forest lands in Washington State. To this end, the CMER Committee has been tasked with performing research in support of an Adaptive Management Program (AMP). The Type N Rule Group prescriptions are intended to protect functions provided by the Type N stream network, yet the effectiveness of the rules remains largely untested. Given the scientific uncertainty of the Type N rules, CMER ranked the ENREP first in importance among 16 research programs in the CMER Work Plan. The ENREP will determine if, and to what extent, the prescriptions found in the Type N Riparian Prescriptions Rule Group are effective in achieving performance targets and water quality standards, particularly as they apply to sediment and stream temperature in eastern Washington.

## PROJECT MILESTONES AND TASKS

Project Milestones	Actual and Estimated Completion Dates by Fiscal Year										
	2013 - 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Charter		Act. 5/2/2019									
Scoping	Act. Nov 2013										
Study Design	Act. 3/25/2018										
Project Management Plan				Est. 2/28/2021							
Site Selection and Data Collection Plan				Est. 10/31/2020							
Site Selection	Northern Rockies sites: Completed 2017. Fish Creek completed June 2020.										
Access Agreements	Northern Rockies sites: Spring 2018		Coxit and Fish Creek site: June 2020								
Secure HPA and collection permits	HPA: Act. 9/17/2018. Collection Permit: Act. 8/1/2018	Collection Permit: Act. 8/1/2019	Collection Permit: Act.6/1/2020	Collection Permit: Est.6/1/2021	Collection Permit: Est.6/1/2022	Collection Permit: Est.6/1/2023	Collection Permit: Est.6/1/2024	Collection Permit: Est.6/1/2025			
Equipment installation			Northern Rockies sites: Act. Nov 2019	Coxit and Fish Creek sites: Act. Oct. 2020							
Data Collection		Fall 2018 – Fall 2025									

Project Milestones	Actual and Estimated Completion Dates by Fiscal Year										
	2013 - 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Lab Work		Fall 2018 – Spring 2026									
Data QA/QC		Fall 2018 – Spring 2026									
Implementation of Harvest Treatments				Feb 2021 – Oct 2021 (Blue Grouse, Tripps, Springdale)		Nov. 2022 – Oct. 2023 (Coxit and Fish Creek)					
Data Analysis									Est. Summer - Winter 2026		
Final Report										Est. Summer - Winter 2026	
SAG Review										Est. Winter 2026/2027	
CMER Review										Est. Spring 2027	
ISPR											Est. Summer /Fall 2027
CMER Final Approval											Est. Fall 2027
6 Questions Document											Est. Fall 2027
Findings Report Delivered to Policy											Est. Fall 2027

## PROJECT DELIVERABLES

Deliverable	Responsible Team Member	Completion Date (Act.* or Est.)
Project Charter	PM, Project Team	May 2, 2019*
Scoping Document	Project Team	November 2013*
Study Plan	Project Team	March 25, 2018*
Access Agreements	PM	June 2020*
Project Management Plan	PM, Project Team	February 2021
HPA and Collection Permits	PM	HPA: June 17, 2018*. Collection permits: Annually ending in June 2025.
Quarterly Progress reports	Tim Link, Charles Hawkins, and Bill Ehinger	September 31 <sup>st</sup> , December 31 <sup>st</sup> , March 31 <sup>st</sup> , and June 30 <sup>th</sup> .
Field Manual/data collection protocols	Project Team	October 31, 2020
QA/QC plan	Project Team	October 31, 2020
QA/QC'd data and meta data for pre-harvest data collection of biophysical variables	University of Idaho	April 1, 2021 for Springdale, Blue Grouse, and Tripps. April 1, 2023 for Coxit and Fish Creek.
QA/QC'd data and meta data for pre-harvest data collection of aquatic life variables	Utah State University	April 1, 2021 for Springdale, Blue Grouse, and Tripps. April 1, 2023 for Coxit and Fish Creek.
Provide project updates (verbal and written) to SAG	PM	At monthly SAGE meeting
QA/QC'd data and meta data for post-harvest data collection of biophysical variables	University of Idaho	April 1, 2024 for Springdale, Blue Grouse, and Tripps. April 1, 2026 for Coxit and Fish Creek.
QA/QC'd data and meta data for post-harvest data collection of aquatic life variables	Utah State University	April 1, 2024 for Springdale, Blue Grouse, and Tripps. April 1, 2026 for Coxit and Fish Creek.
Final report (SAGE, CMER, and ISPR approved)	Project Team	Est. Fall 2027
6 Questions Document	Project Team and SAGE	Est. Fall 2027

\*Actual completion dates.

## PROJECT TEAM MEMBERS

Name, Title, Affiliation, Contact Info	Roles and Responsibilities
<p><b>Project Manager (PM):</b> Teresa Miskovic</p> <p>WA DNR</p> <p><a href="mailto:teresa.miskovic@dnr.wa.gov">teresa.miskovic@dnr.wa.gov</a> 360-902-2599</p>	<ul style="list-style-type: none"> <li>• Monitors project activities and the performance of the Project Team.</li> <li>• Communicates progress, problems, and problem resolution to the Adaptive Management Program Administrator (AMPA), CMER, and SAGE.</li> <li>• Works with SAGE/CMER, and Project Team to develop, update, and maintain Project Charter, Project Management Plan and all other project documentation.</li> <li>• RFQQ or RFP development and facilitation through review and selection process.</li> <li>• Monitors contract performance, and completes all budgeting, scheduling, scope changes, and contract amendments.</li> <li>• Works with SAGE, CMER, and Project Team (including PIs, contractors, and other Team members) to resolve problems and build consensus.</li> <li>• As a member of the Project Team, works with PIs and Project Team members to develop interim and final draft reports.</li> <li>• Ensures communication between all team members is clear, concise, and consistent.</li> <li>• Functions as point of contact with landowners for final agreement and development of landowner access agreements.</li> <li>• Ensures coordination between SAGE/CMER, Project Team and landowners.</li> <li>• Coordinates all technical reviews and responses in a timely fashion.</li> <li>• Facilitates archiving of all data and documents.</li> <li>• Ensures that contract provisions are followed.</li> <li>• Provides direction and support to the Project Team to achieve clear and specific scopes of work, schedules, and budgets within approved contracts.</li> <li>• Responsible for communicating or authorizing communication with all project-related contractors.</li> <li>• Overall as a lead of the project team, is primarily responsible for all aspects of project management, which includes: planning, maintaining project accountability, project communication, facilitation of administrative tracking.</li> <li>• Assist with oversight of harvest treatments to ensure project objectives are being met.</li> </ul>
<p><b>Principal Investigator (PI):</b> Timothy Link, University of Idaho (UI)</p>	<ul style="list-style-type: none"> <li>• Executes the technical and scientific components of the biophysical elements of the project according to the Project Plan and Study Design.</li> </ul>

<p><a href="mailto:tlink@uidaho.edu">tlink@uidaho.edu</a> 208-885-9465</p>	<ul style="list-style-type: none"> <li>• Works with the PM and SAGE to identify additional technical expertise and time commitments needed.</li> <li>• Provides materials needed by the PM and assists with development of the project charter and management plan.</li> <li>• Helps implement study design, including site selection, data QA/QC, managing field crews, and data collection and analysis.</li> <li>• Oversees field crew training for implementation of data collection.</li> <li>• Assists with flume installation oversight.</li> <li>• Oversees data analysis and QA/QC of data provided by staff.</li> <li>• Prepares quarterly progress reports of project status.</li> <li>• Leads in the development and writing of interim and final draft reports.</li> <li>• Presents technical findings to SAGE, CMER, and TFW Policy as necessary.</li> <li>• Works with the PM to coordinate the site selection process.</li> <li>• Acts as team/project contact with all landowners for communication associated with identifying potential study sites, access permissions, and key acquisitions necessary.</li> <li>• Completes field reconnaissance, analysis, and communicates the results of the selection of study basins to the Project Team.</li> <li>• Works with PM to acquire and maintain landowner permission to use specific sites for CMER research.</li> <li>• Communicates project status and issues to the PM and Project Team and participates in Project Team meetings.</li> <li>• Assist with oversight of harvest treatments to ensure project objectives are being met.</li> </ul>
<p><b>Principal Investigator (PI):</b> Charles Hawkins, Utah State University (USU)</p> <p><a href="mailto:chuck.hawkins@usu.edu">chuck.hawkins@usu.edu</a> 435-797-2280</p>	<ul style="list-style-type: none"> <li>• Executes the technical and scientific components of the aquatic life elements of the project according to the Project Plan and Study Design.</li> <li>• Works with the PM and SAGE to identify additional technical expertise and time commitments needed.</li> <li>• Provides materials needed by the PM and assists with development of project charter and management plan.</li> <li>• Helps implement study design, including site selection, data QA/QC, managing field crews, and data collection and analysis.</li> <li>• Oversees field crew training for implementation of data collection.</li> <li>• Oversees data analysis and QA/QC of data provided by staff.</li> <li>• Prepares quarterly progress reports of project status.</li> <li>• Assists in the development and writing of interim and final draft reports.</li> <li>• Presents technical findings to SAGE, CMER, and TFW Policy as necessary.</li> </ul>

	<ul style="list-style-type: none"> <li>Communicates project status and issues to the PM and Project Team and participates in Project Team meetings.</li> </ul>
<p><b>Project Team Member:</b> William Ehinger WA Dept. of Ecology <a href="mailto:wehi461@ecy.wa.gov">wehi461@ecy.wa.gov</a> 360-407-6416</p>	<ul style="list-style-type: none"> <li>Provides technical assistance to the Project Team and participates in Project Team meetings.</li> <li>Participates in the development of specific sampling plans.</li> <li>Participates in data analysis phase of project.</li> <li>Assists PIs with writing and reviewing reports.</li> <li>Coordinates with WCC crews for trail clearing at each site.</li> </ul>
<p><b>Field Manager:</b> Paul Robinson UI <a href="mailto:probinson@uidaho.edu">probinson@uidaho.edu</a> 208-863-9150</p>	<ul style="list-style-type: none"> <li>Supervises field crews.</li> <li>Manages UI project budget.</li> <li>Manages field calendar</li> <li>Purchases equipment and supplies.</li> <li>Manages equipment inventory and insurance.</li> <li>Conducts site assessments.</li> <li>Collects biophysical data.</li> <li>QA/QCs and manages field data.</li> <li>Installs, operates, and maintains field equipment.</li> </ul>
<p><b>Staff Scientist:</b> Ian Hellman UI <a href="mailto:ihellman@uidaho.edu">ihellman@uidaho.edu</a> 208-413-6885</p>	<ul style="list-style-type: none"> <li>Supervises field crews.</li> <li>Contributes to field calendar</li> <li>Conducts site assessments.</li> <li>Collects biophysical data.</li> <li>QA/QCs and manages field data.</li> <li>Installs, operates, and maintains field equipment.</li> <li>Purchases equipment and supplies.</li> </ul>
<p><b>Staff Scientist:</b> Daniel Nelson USU <a href="mailto:daniel.nelson@usu.edu">daniel.nelson@usu.edu</a> 808-443-7179</p>	<ul style="list-style-type: none"> <li>Conducts site assessments.</li> <li>Collects aquatic life data.</li> <li>QA/QCs and manages field data.</li> </ul>
<p><b>Project Team Member:</b> Mark Teply Mark Teply Consulting <a href="mailto:markteply@msn.com">markteply@msn.com</a> 360-915-3480</p>	<ul style="list-style-type: none"> <li>Establishes riparian vegetation transects in each of 10 basins.</li> <li>Collects riparian vegetation data per the study design and field protocol.</li> <li>Data QA/QC, analysis, and summary report for riparian vegetation.</li> </ul>
<p><b>CMER Scientist:</b> Greg Stewart NWIFC <a href="mailto:gstewart@nwifc.org">gstewart@nwifc.org</a> 360-525-3657</p>	<ul style="list-style-type: none"> <li>Assists with site selection.</li> <li>Provides technical assistance to the Project Team as needed.</li> <li>Participates in the data analysis phase of project as needed.</li> <li>Assists PIs with writing and reviewing reports as needed.</li> <li>Conducts stream cross section measurements.</li> </ul>
<p><b>Eastside CMER Scientist:</b> Malia Volke WA DNR <a href="mailto:malia.volke@dnr.wa.gov">malia.volke@dnr.wa.gov</a> 360-529-6600</p>	<ul style="list-style-type: none"> <li>Provides technical assistance to the Project Team as needed.</li> <li>Participates in the data analysis phase of project as needed.</li> <li>Assists PIs with writing and reviewing reports as needed.</li> <li>Assist with oversight of harvest treatments to ensure project objectives are being met.</li> <li>Assist with data collection as needed.</li> </ul>

In addition to the project team members identified above, other roles and responsibilities are being completed by the resources identified below.

<p><b>West Fork Environmental, Inc</b> Phil Peterson <a href="mailto:phil@westforkenv.com">phil@westforkenv.com</a> 360-753-0485</p>	<ul style="list-style-type: none"><li>• Fabrication and installation of 10 flumes.</li><li>• Completion of water typing protocol survey at the Coxit treatment basin.</li></ul>
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## PROJECT CONSTRAINTS AND ASSUMPTIONS

Project constraints are limiting factors (internal or external) that affect the initiation, planning, execution, monitoring & control, and close-out of a project. Constraints restrict or dictate the actions of the project team. There are four specific constraint types that will be considered herein: schedule constraints, budget constraints, human resource constraints, and resource constraints. Assumptions on the other hand are factors in the planning process that are considered to be true, real, or certain, without proof or demonstration and are outside the total control of the project team.

### Constraints

#### Schedule constraints

- Finding viable sites with landowner agreement to include in the study has been the most challenging schedule constraint. Two of the three initial basin pairs selected for the East Cascades have been dropped from the study and site selection for this area began again during winter 2020. One replacement pair has been added, Fish Creek. Loss of these sites delayed data collection for the Coxit and Fish Creek basin pairs by two years which pushed out completion of the study also by two years. This delay does not affect meeting the study objectives but does increase project costs.
- To meet study objectives, data collection occurs two years prior to harvest and two years after harvest. At this time landowners are willing to harvest in the necessary time window to meet the study objectives but changes in the timber market could impact harvest timing. The schedule required to meet the study objectives is:
  - Springdale, Blue Grouse, and Tripps: Pre-harvest data collection – November 2018 – October 2020. Harvest: May 2021 – October 2021. Post-harvest data collection – October 2021 – October 2023
  - Coxit and Fish Creek: Pre-harvest data collection – October 2020 – October 2022. Harvest: October 2022 – October 2023. Post-harvest data collection – October 2023 – October 2025.
- Since sites are located on the east side of the state, snow delays are a possibility if sites are not accessible to collect/download data. Measures have been taken to build trails and acquire equipment to access the sites with a reasonable amount of snowfall. Also extra batteries are in place to ensure consistent data collection for extended periods of time.



### **Budget constraints**

There are no specific budget constraints at this time. Since this is a long term project that requires substantial levels of funding to complete, there is the possibility that reductions in the overall Adaptive Management Program budget could affect completion of the project.

### **Human resource constraints**

- Hiring seasonal field technicians each summer is necessary to collect data. If there are challenges finding seasoning employees it could make it difficult to meet the data collection schedule.
- Project team members, contractors, and/or technicians may not be permitted to work as usual due to the limitations on workflow presented by COVID-19 restrictions and/or social distancing requirements.
- Fieldwork may be delayed during episodes of unhealthy air quality or extreme fire risk to ensure personnel safety.

### **Resource constraints**

- The most challenging resource constraint has been locating viable study basins. The initial office screening identified 121 Type N basins that appeared to meet study criteria. After discussing these sites with landowners, 26 were identified for possible inclusion. Field reconnaissance of the 26 revealed three basin pairs that met all study criteria. The PIs proceeded with the existing three basin pairs while looking for up to three additional basin pairs. Two additional basin pairs have been added to the study.
- We don't have management control of the study sites, although we do have landowner access agreements. We could lose access to certain sites, sites could be harvested, or harvest delayed if the landowner chooses to do so.
- The risk of fire is a possibility that could compromise study sites. If a fire burns through a site the viability of keeping the site or replacing it will have to be assessed.

### **Assumptions**

The following are key assumptions for implementation of this project:

- The core members of the Project Team stay on the team throughout the majority of the project.
  - a. If a core member were unavailable, time could be lost in replacing them.
  - b. Loss of certain expertise could limit or slow the ability to execute some portions of the study design.
- The project will maintain access to the study sites throughout the time of the study.

- a. Private land ownership or management changes could potentially compromise keeping the sites in the study.
- Reference basins are not harvested prior to the end of study completion.
- Treatment basins are harvested appropriately to meet study objectives.
- Catastrophic forest fires will not compromise sites.
- Data collection will not be significantly hindered by periods of extreme fire risk and/or unhealthy air quality.
- Flumes will remain stable and unusually high flows or heavy snow pack won't compromise them.
- Funding for the project remains stable.

A separate Risk Management Plan will not be developed unless one of these constraints or assumptions occurs or if one is deemed necessary. The process for developing a detailed Risk Management Plan is outlined in section 7.11 of the CMER Protocols and Standards Manual (PSM). A Risk Management Plan identifies potential actions to avoid, reduce, and/or mitigate impacts to a project.

## **DECISION-MAKING AUTHORITY**

The Forest Practice Board (Board) has approval authority over proposed CMER projects, annual work plans, and expenditures. The Board manages the Timber, Fish and Wildlife Policy Committee (Policy), the Cooperative Monitoring, Evaluation, and Research (CMER) Committee, and the Adaptive Management Program Administrator (AMPA) to assist with the Board's directives. Policy assists the Board by providing guidance to CMER and recommendations on adaptive management issues. CMER is responsible for understanding available scientific information that is applicable to the questions at hand, selecting the best and most relevant information and synthesizing it into reports for Policy and the Board. The AMPA coordinates the flow of information between Policy and CMER according to the Board's directives. Decision-making authority described in this section needs to be consistent with CMER process and ground rules per the Board Manual section 22.

Decisions related to science and/or technical items is the responsibility of the PIs and the Project Team. If needed, decisions for scientific and/or technical items could be expanded to include SAGE and CMER. Final documents will be prepared by the project team and then reviewed and approved by SAGE, CMER, Independent Scientific Peer Review (ISPR), and Policy. Although the PM will assist in the facilitation of the discussion and decision making process, the PM will not be directly involved in decisions related to science and/or technical items.

Decisions related to contractual (scope of work, RFQQ, contract process, contractor interaction, etc.) and budgetary items is the responsibility of the PM along with input from the Project Team. Requests for additional funding will be approved by the PM and Project Team and sent to SAGE and CMER for formal approval. Minor budgetary or contractual items or re-allocations within existing budget categories will be handled directly by the PM with notification provided to the Project Team. Major budgetary or contractual items will be decided between the PM and Project Team. If needed, decision making for budgetary items may require CMER and/or Policy input and/or approval.

## PROJECT RESOURCE NEEDS

List or describe any infrastructure or specialized equipment that will be necessary to complete the project (e.g., aerial photographs, orthophotos, special maps, vehicles, GPS unit, computer, software programs, field gear, thermographs, etc.)

Project Resources	Quantity
SedEvent System:	12
-H2 datalogger with G6 telemetry	12
-Solar panel, 50W, mount, 30 ft cable	12
-TTS Water Site Enclosures for SedEvent System	12
-GOES EON2 antenna w/GPS, Cables, mount	12
-FTS DTS-12 turbidity sensor	12
-Pressure Transducer, SDI SS Case	24
-FTS Radar Stage Sensor and enclosure	13
-ISCO 6712 portable sampler and spare bottles	12
-100 Amp-hour deep cycle batteries	40
-Battery chargers	2
-Powerstrut metal framing and fittings for enclosure and sensor mounting	
-PVC conduit and fittings to protect sensor cables and tubing	
Campbell Scientific Hydrometeorological stations:	12
-Campbell Scientific CM106B tripod	12
-Campbell Scientific CR1000X dataloggers	12
-Campbell Scientific ENC12-14 datalogger enclosure	12
-Campbell Scientific PS200 power supply	12
-Campbell Scientific SP10 solar panels	12
-Campbell Scientific TE525-WS-L20-PT rain gage	6
-Vaisala HMP60 temperature/humidity combination probe w/ radiation shield	12
-Campbell Scientific CS320 thermopile pyranometer	12
-Met One 034B anemometers	12
-Campbell Scientific SR50 snow depth sensors	12
-Campbell Scientific 107 soil temperature probe	12
-OTT Pluvio <sup>2</sup> L precipitation gauges	6
-Campbell Scientific LoggerNet software package	1
TidbiT v2 temperature data logger	600
Hemispheric camera kit and Delta-T HemiView software	1
Spherical densiometer	2
Reconyx Automated Cameras	24
FLIR E8 Thermal imaging camera	1
GPS	1
iPad Mini	2
Garmin InReach Mini Satellite Communicator	3
Trimble SX10 Total Station System	1
Peristaltic pump	1
Montana flumes	10

Honda Rubicon ATVs with Track Kits	2
SkiDoo Skandic SUV snowmobiles	2
Field computers	2
13" MacBook Pros	2
Computer monitors	4

**PROJECT BUDGET**

	Past Expenditures (FY 15-19)	FY 20 Expenditures Budget	FY 2021 Budget	FY 2022 Budget	FY 2023 Budget	FY 2024 Budget	FY 2025 Budget	FY 2026 Budget	FY 2027 Budget	FY 2028 Budget
<b>Inter-Agency Agreements (IAAs)</b>	<b>\$662,474</b>	<b>\$449,132</b>	<b>\$718,471</b>	<b>\$579,404</b>	<b>\$587,217</b>	<b>\$610,720</b>	<b>\$508,990</b>	<b>\$456,029</b>	<b>\$289,904</b>	<b>\$100,000</b>
<i>University of Idaho</i>	\$389,088	\$277,100	\$478,864	\$402,457	\$423,203	\$449,186	\$407,142	\$363,967	\$204,099	\$50,000
<i>Utah State University</i>	\$114,987	\$122,032	\$202,409	\$161,947	\$164,014	\$146,534	\$101,848	\$92,062	\$85,805	\$50,000
<i>Dept. of Ecology</i>	\$35,126	\$50,000	\$37,200	\$15,000	-	\$15,000	-	-	-	-
<i>Upper Columbia United Tribe</i>	\$123,274	-	-	-	-	-	-	-	-	-
<b>Service Contracts</b>	<b>\$135,679</b>	<b>\$24,762</b>	<b>\$60,037</b>	-	-	-	-	-	-	-
<i>West Fork Environmental</i>	\$89,591	\$24,762	\$60,037	-	-	-	-	-	-	-
<i>Siskowet</i>	\$17,411	-	-	-	-	-	-	-	-	-
<i>Cramer Fish Sciences</i>	\$28,677	-	-	-	-	-	-	-	-	-
<i>Mark Teply Consulting</i>	-	-	-	\$21,326	\$15,705	\$19,513	\$15,618	-	-	-
<b>Project Team Personal Service Contracts</b>	<b>\$146,723</b>	-	-	-	-	-	-	-	-	-
<i>Utah State University</i>	\$27,431	-	-	-	-	-	-	-	-	-
<i>University of Idaho</i>	\$21,846	-	-	-	-	-	-	-	-	-
<i>Woodsmith Watershed Consulting</i>	\$97,446	-	-	-	-	-	-	-	-	-
<b>MOU – DNR NE Forester</b>	-	<b>\$177</b>	<b>\$1,823</b>	-	-	-	-	-	-	-
<b>Summary Totals</b>	<b>\$944,876</b>	<b>\$474,071</b>	<b>\$780,331</b>	<b>\$600,730</b>	<b>\$602,922</b>	<b>\$630,233</b>	<b>\$524,608</b>	<b>\$456,029</b>	<b>\$289,904</b>	<b>\$100,000</b>

**Total Project Budget: \$5,403,704**

## PROJECT SITES

The target population was state and private forest land in eastern Washington that does not have its own habitat conservation plan and is likely to be harvested under WAC-222-30-022(2). The study site criteria include Type N basins that contain a Type Np stream with mature harvestable timber without significant anthropogenic or natural disturbance. Each treatment basin is paired with a suitable reference basin that will not be harvested within the study timeframe. The initial GIS office screening identified 121 Type N basins that appeared to meet study criteria. Of these, land owners identified 26 for possible inclusion in the study. Field reconnaissance of the 26 basins revealed six suitable basin pairs for inclusion in the study, Springdale, Blue Grouse, Tripps, Sedge Ridge, Rattlesnake, and Coxit. Two of the three initial basin pairs selected for the East Cascades have been dropped from the study (Sedge Ridge and Rattlesnake). After these two basin pairs were dropped from the study, an additional basin pair was located Fish Creek.

Site	Forest Type/Location	Landowner
Springdale	Dry, west-facing site. Northern Rockies	Hancock
Blue Grouse	Mesic, west-facing site. Northern Rockies	Inland Empire Paper
Tripp's Knob	Wet, north-facing site. Northern Rockies	Inland Empire Paper
Coxit Mountain	Mesic, SW-facing Site. North Cascades	WA DNR
Fish Creek	Wet, south-facing site. Northern Rockies	Inland Empire Paper

## COMPANION CMER DOCUMENTS

The following is a list of the stand-alone CMER documents that currently exist or will be created to complete this project.

Document	Completion Date (Act.* or Est.)
Project Charter	May 2, 2019*
Scoping document	November 2013*
Study Design	March 25, 2018*
Prospective 6 questions document	March 25, 2018*
Data Collection Procedures	April 2018
Project Management Plan	February 2021
Document/Data Management and Closure Plan	TBD
Final results report	FY 2028
Final 6 Questions Document	FY 2028

\*Actual completion dates.

## PROJECT COMMUNICATION OVERVIEW

Transparent and accurate communication between the different adaptive management parties (Project Team/SAG/CMER/AMPA/TFW Policy) is critical for the AMP to guide and oversee the work of the Project Team. This section provides a framework to manage and coordinate the communications needed for all phases of a project. If a separate Communication Plan is needed for a project, see section 7.6 of the PSM for detailed guidelines.

Two primary pathways exist for project communication to occur when working on CMER projects - 1) between the Project Team and project oversight committees (i.e. SAGs/CMER/TFW Policy), and 2) communication within the Project Team.

## PROJECT OVERSIGHT COMMITTEE COMMUNICATION

This section covers communication between the Project Team and the project oversight committees (i.e. SAGs/CMER/TFW Policy). Project oversight communication includes three categories of documents/communication: 1) Project management documents that enable oversight committees to understand how projects will be managed, 2) Project tracking and communication to enable the oversight committee(s) to track project progress and provide guidance and approvals to move projects forward, and 3) communication with contractors.

### 1. Project management documents

The PM is the lead author for the Project Charter, Project Management Plan, and other project management documents. If the Principal Investigator (PI) has been identified at the time of project launch, the PM will work with the PI to draft the Project Charter and Project Management Plan, in consultation with the oversight committee.

Project Management Documents*	Primary Author	Collaborators	Final Approval	Primary Audience
Project Charter	PM	PI and Project Team (if identified)	CMER and TFW Policy	Project Team, SAG, CMER, and TFW Policy
Project Management Plan (including communication and risk sections)	PM	PI and Project Team (if identified)	CMER	Project Team, SAG, and CMER
Document Management and closure plan	PM	PI	N/A	Project Team, SAG, and CMER

\*For details regarding these documents, see PSM Section 7.6

### 2. Project tracking and guidance documents

The PM is responsible for ensuring that all reporting tasks are complete and provided on schedule. When preparing progress reports, the PI is responsible for providing detailed and comprehensive costs, schedule, and project updates, in writing, to the PM consistent with prior written agreement. The PM, in turn, is responsible for summarizing project update

information into progress reports, and presenting these progress reports to the overseeing SAG and to CMER per the project schedule or as requested by the SAG or by CMER. The PM may delegate preparation or presentation of progress reports to the PI or other Project Team members, with their consent.

Project Tracking/Guidance Documents*	Primary Author	Collaborators	Final Approval	Primary Audience
Project updates	PM	PI	N/A	Project Team, SAG, CMER, and TFW Policy
CMER quarterly and annual project progress reports	PM	PI	N/A	SAG and CMER
CMER Requests	PM	Project Team	CMER	CMER
TFW Policy Requests/Check-ins	AMPA	Project Team	CMER	TFW Policy
Public Presentations	PI/PM	Project Team	N/A	Public

\*For details regarding these documents, see PSM Section 7.6

### 3. Contractor Communications

In all cases, the PM is primarily responsible for facilitating open and transparent communication between contractor(s) and project oversight committee(s) members. Committee members should generally not directly communicate with the contractor(s) about substantive project elements outside of formally organized meetings, conference calls, or PM-facilitated group e-mail discussions, unless specifically authorized in pre-established contract terms, or approved in advance to do so by the PM. The PM may verbally grant authorization, and the rest of the Project Team and oversight committee members should be informed when this occurs. The PM is responsible for informing the contractor(s) of this policy as well.

### INTRA-PROJECT TEAM COMMUNICATION

The PM provides assistance to Project Team members by coordinating communication (e.g. one-on-one and group meetings, conference calls, etc.) when needed as well as maintaining the e-mail distribution list for the Project Team. The PM also ensures that any communication resulting in a formal decision about the project occurs in a transparent and inclusive way.

The PI is responsible for preparing and writing technical reports for CMER. How the PI communicates and works with other Project Team members to produce these documents will vary based on the nature of the project and dynamics of the Project Team. The PI works together with the PM to coordinate communication with other team members as needed.

Communication by individual team members includes participation at meetings and conference calls, providing feedback on draft documents, researching specific topics/issues, taking the lead on writing report sections, and/or acting as co-author(s) of CMER documents. The expectation is



that Project Team members, including PMs and PIs, who communicate outside of normal project meetings, conference calls, and other venues will share substantive, project-related conversations they have with the rest of the Project Team. For additional details regarding project team communication see PSM section 7.6.3.

**Communication structure**

