

WHATCOM COUNTY CONTRACT INFORMATION SHEET

Whatcom County Contract No.
202406024-1

Originating Department:	Public Works
Division/Program: <i>(i.e. Dept. Division and Program)</i>	Natural Resources
Contract or Grant Administrator:	Gary Stoyka
Contractor's / Agency Name:	State of Washington Department of Ecology
<p>Is this a New Contract? If not, is this an Amendment or Renewal to an Existing Contract? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Amendment or Renewal, (per WCC 3.08.100 (a)) Original Contract #: <u>202406024</u></p> <p>Does contract require Council Approval? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If No, include WCC: _____</p> <p>Already approved? Council Approved Date: _____ (Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)</p> <p>Is this a grant agreement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, grantor agency contract number(s): <u>OTGP-2024-WhCoPW-00040</u> CFDA#: _____</p> <p>Is this contract grant funded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, Whatcom County grant contract number(s): _____</p> <p>Is this contract the result of a RFP or Bid process? Contract _____</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, RFP and Bid number(s): _____ Cost Center: <u>19082372</u></p> <p>Is this agreement excluded from E-Verify? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> If no, include Attachment D Contractor Declaration form.</p> <p>If YES, indicate exclusion(s) below:</p> <p><input type="checkbox"/> Professional services agreement for certified/licensed professional. <input type="checkbox"/> Goods and services provided due to an emergency</p> <p><input type="checkbox"/> Contract work is for less than \$100,000. <input type="checkbox"/> Contract for Commercial off the shelf items (COTS).</p> <p><input type="checkbox"/> Contract work is for less than 120 days. <input type="checkbox"/> Work related subcontract less than \$25,000.</p> <p><input checked="" type="checkbox"/> Interlocal Agreement (between Governments). <input type="checkbox"/> Public Works - Local Agency/Federally Funded FHWA.</p>	
<p>Contract Amount:(sum of original contract amount and any prior amendments): \$ <u>(485,600)</u></p> <p>This Amendment Amount: \$ <u>(214,400)</u></p> <p>Total Amended Amount: \$ <u>(700,000)</u></p>	<p>Council approval required for; all property leases, contracts or bid awards exceeding \$40,000, and professional service contract amendments that have an increase greater than \$10,000 or 10% of contract amount, whichever is greater, except when:</p> <ol style="list-style-type: none"> 1. Exercising an option contained in a contract previously approved by the council. 2. Contract is for design, construction, r-o-w acquisition, prof. services, or other capital costs approved by council in a capital budget appropriation ordinance. 3. Bid or award is for supplies. 4. Equipment is included in Exhibit "B" of the Budget Ordinance 5. Contract is for manufacturer's technical support and hardware maintenance of electronic systems and/or technical support and software maintenance from the developer of proprietary software currently used by Whatcom County.
<p>Summary of Scope: This grant agreement amendment provides additional funding to conduct three technical studies that will support the development of water supply solutions for water users and protection of instream flows the WRIA 1.</p>	
Term of Contract: 2 years	Expiration Date: 6/30/2025

Contract Routing:	1. Prepared by: <u>Gary S. Stoyka</u>	Date: <u>5/8/25</u>
	2. Attorney signoff: <u>Christopher Quinn</u>	Date: <u>5/7/2025</u>
	3. AS Finance reviewed: <u>bbennett</u>	Date: <u>05/13/2025</u>
	4. IT reviewed (if IT related): _____	Date: _____
	5. Contractor signed: _____	Date: _____
	6. Executive contract review: _____	Date: _____
	7. Council approved (if necessary): <u>AB2025-388</u>	Date: <u>5/27/2025</u>
	8. Executive signed: _____	Date: _____
	9. Original to Council: _____	Date: _____



AMENDMENT NO. 1
TO AGREEMENT NO. OTGP-2024-WhCoPW-00040
BETWEEN
THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
AND
Whatcom County Public Works

PURPOSE: To amend the above-referenced agreement (AGREEMENT) between the state of Washington Department of Ecology (ECOLOGY) and Whatcom County Public Works (RECIPIENT) for the WRIA 1 Collaborative Water Supply Planning (PROJECT).

This amendment is needed to incorporate three new tasks as approved by the Water Resources Inventory Area (WRIA) 1 Watershed Management Board as follows:

1) Modify Scope of Work, to include:

Task 6 - Phase 1 Investigation of Agricultural Tile Drains Impact on Stream Flows.

Task 7- Assess Potential Wetland Enhancement.

Task 8 - Musto Marsh and Springsteen Lake Water Storage Projects.

2) Modify the budget to:

- Increase the Total Eligible Cost in the amount of \$214,400 from \$485,600 to \$700,000 to cover the costs of the new tasks.
- Reduce Task 1 cost by \$5,000.00 from \$10,000.00 to \$5,000.00.
- Reduce Task 2 cost by \$8,620.00 from \$8,620.00 to \$0.00.
- Reduce Task 4 cost by \$6,067.50 from \$81,600.00 to \$75,532.50.
- Reduce Task 5 cost by \$211.50 from \$29,00.00 to 28,788.50.
- Add \$108,863.00 to new Task 6.
- Add \$25,600.00 to new Task 7.
- Add \$99,836.00 to new Task 8.

IT IS MUTUALLY AGREED that the AGREEMENT is amended as follows:

Total Cost:

Original: 485,600.00 Amended: 700,000.00

Total Eligible Cost:

Original: 485,600.00 Amended: 700,000.00

CHANGES TO THE BUDGET

Funding Distribution EG240710

Funding Title: One Time Grants Program

Funding Type: Grant

Funding Effective Date: 07/01/2023

Funding Expiration Date: 06/30/2025

Funding Source:

Title: General Fund - State
Fund: FD0001
Type: State
Funding Source %: 100%
Description: General Fund - State

Approved Indirect Costs Rate: Approved State Indirect: 30%
Recipient Match %: 0%
InKind Interlocal Allowed: No
InKind Other Allowed: No
Is this Funding Distribution used to match a federal grant? No

One Time Grants Program	Task Total
Grant Administration/Management	\$ 5,000.00
Cultural Resources Review	\$ 0.00
Evaluate Streamflow Depletion Rate Due to Pumping	\$ 356,380.00
Extrapolate Initial Salmon Flow Recommendations	\$ 75,532.50
Whatcom Groundwater Model Refinements	\$ 28,788.50
Phase 1 Investigation of Agricultural Tile Drains	\$ 108,863.00
Assess Potential Wetland Enhancement	\$ 25,600.00
Musto Marsh and Springsteen Lake Water Storage	\$ 99,836.00
Total: \$ 700,000.00	

CHANGES TO SCOPE OF WORK

Task Number: 1 Task Cost: \$5,000.00

Task Title: Grant Administration/Management

Task Description:
Task Description (3500-character limit, includes spaces):
A. The RECIPIENT will administer the grant. Responsibilities will include, but not be limited to maintenance of project records; quarterly submittal of requests for reimbursement and corresponding backup documentation, quarterly progress

reports, and a recipient closeout report; submittal of required performance items; and compliance with applicable procurement and contracting requirements.

B. The RECIPIENT will prepare and submit progress reports and payment requests at least quarterly and no more than monthly to ECOLOGY's project manager using Ecology's Administration of Grants and Loans (EAGL) online grant management system. The reports must include, at a minimum, the following information:

1. A comparison of actual accomplishments to the objectives established for the reporting period.
2. The reasons for any delays if the project does not meet established objectives.
3. Analysis and explanations of any cost overruns.
4. Any additional pertinent information.

C. The RECIPIENT will submit a Recipient Closeout Report, encompassing the entire project, with their last payment request. The RECIPIENT will submit the final payment request, all final deliverables, and Recipient Closeout Report within 30 days of the end of this agreement.

D. The RECIPIENT must manage and carry out this project in accordance with any completion dates outlined in this agreement.

Task Goal Statement:

Properly managed project that meets agreement and Ecology administrative requirements.

Task Expected Outcome:

* Timely and complete requests for reimbursement and progress reports (as frequently as monthly but no less than quarterly), and recipient closeout report.

*Properly maintained project documentation

Recipient Task Coordinator: Chris Elder

Deliverables

Number	Description	Due Date
1.1	Progress Reports	
1.2	Recipient Closeout Report	06/30/2025

CHANGES TO SCOPE OF WORK

Task Number: 2

Task Cost: \$0.00

Task Title: Cultural Resources Review

Task Description:

A. The RECIPIENT must ensure the following items are completed and provide the associated deliverables to ECOLOGY. The RECIPIENT must approve all materials prior to submitting them to ECOLOGY for acceptance.

B. The RECIPIENT must comply with Governor's Executive Order (GEO) 21-02 concerning archeological and cultural

resources. To initiate cultural resources review, the RECIPIENT must:

1. Submit to ECOLOGY a completed Ecology Cultural Resources Review form (ECY 070-537; rev. 6/2021). All submitted materials must conform to the Department of Archeology and Historic Preservation's Washington State Standards for Cultural Resource Reporting.
2. Submit a signed landowner agreement, if applicable.
3. Submit to ECOLOGY a completed Ecology Inadvertent Discovery Plan (IDP) (ECY 070-560; rev. 6/2021). The RECIPIENT must ensure that all contractors, subcontractors, and volunteers have a copy of the completed IDP prior to and while working on-site. The RECIPIENT must ensure the IDP is immediately available onsite, be implemented to address any discovery, and be available by request by any party.
4. If the RECIPIENT would like to request review and adoption of existing Cultural Resources Review(s), submit to ECOLOGY a completed and signed Cultural Resources Review Adoption Checklist (provided by the ECOLOGY Project Manager). Submission of an adoption proposal must be for the same work in the same project area and ECOLOGY reserves the right to require additional work under this task and/or to deny external adoption.

The RECIPIENT must submit any supplemental cultural resources documentation (copies of any associated survey or monitoring reports, project communication with the Department of Archaeology and Historic Preservation and Tribal Consultation, documentation of final determination, and any other relevant materials) to the ECOLOGY Project Manager.

C. The RECIPIENT and all contractors, subcontractors, and volunteers performing work onsite must review the following Ecology video prior to proceeding with work onsite: "Inadvertent Discovery of Cultural Resources of Human Remains" (<https://www.youtube.com/watch?v=cV3BppQTx9Q>; 12:44 minutes).

D. The RECIPIENT must receive written notice from ECOLOGY prior to proceeding with any work with potential impacts to cultural resources. Work done prior to written notice to proceed will not be eligible for reimbursement. This includes geotechnical work.

Task Goal Statement:

The RECIPIENT will comply with Governor's Executive Order (GEO) 21-02 concerning archeological and cultural resources.

Task Expected Outcome:

The project will be implemented in compliance with Washington State Governor's Executive Order (GEO) 21-02 concerning archeological and cultural resources.

Recipient Task Coordinator: Chris Elder

Deliverables

Number	Description	Due Date
2.1	Submit via email a completed ECY 070-537 (CRR) form and any supplemental cultural resources documentation to the ECOLOGY Project Manager. Do not upload to EAGL.	
2.2	Upload to EAGL a signed landowner agreement for each site, if applicable.	

2.3	Upload to EAGL a completed ECY 070-560 (IDP) form and notify the ECOLOGY Project Manager when upload is complete. The Project Manager and RECIPIENT must review the IDP during a project kickoff or pre-construction meeting.	
2.4	Submit via email a completed Cultural Resources Review Adoption Checklist and any supplemental cultural resources documentation to the ECOLOGY Project Manager, if applicable. Do not upload to EAGL.	
2.5	Upload to EAGL a completed ECY 070-560 (IDP) form and notify the ECOLOGY Project Manager when upload is complete. The Project Manager and RECIPIENT must review the IDP during a project kickoff or pre-construction meeting.	
2.6	Submit via email a completed Cultural Resources Review Adoption Checklist and any supplemental cultural resources documentation to the ECOLOGY Project Manager, if applicable. Do not upload to EAGL.	
2.7	Submit an email to the ECOLOGY Project Manager confirming the RECIPIENT and all contractors, subcontractors, and volunteers performing work onsite have viewed the video.	
2.8	Upload to EAGL email(s) from ECOLOGY with Notice(s) to Proceed.	

CHANGES TO SCOPE OF WORK

Task Number: 4 Task Cost: \$75,532.50

Task Title: Extrapolate Initial Salmon Flow Recommendations

Task Description:

Instream flow recommendations for salmon were previously derived from PHABSIM models and an extrapolation methodology developed by Utah State University (USU) for the WRIA 1 Watershed Management Project in 2006. The RECIPIENT will use the extrapolation method to explore model inputs, outputs, and functionality by generating outputs of ~300 unmeasured “nodes” in WRIA 1 and determine if the model will produce results that can inform salmon flow recommendations at the “nodes”.

The RECIPIENT will prepare a technical memorandum documenting the investigative process and identifying potential model strengths and limitations for water use management and salmon recovery planning. The RECIPIENT will present results to the WRIA 1 Watershed Staff Team. No new data will be collected.

The RECIPIENT will:

A. Prepare and submit to ECOLOGY for approval a Quality Assurance Project Plan (QAPP). The QAPP must follow ECOLOGY’s Guidelines and Specifications for Preparing Quality Assurance Project Plans for Environmental Studies, A

QAPP template is available at <http://www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/index.html>.

The RECIPIENT must have an approved QAPP signed by both the RECIPIENT and ECOLOGY before any monitoring activity. Any monitoring/data collection conducted before the QAPP receives final approval may not be eligible for reimbursement. No new monitoring data collection is proposed.

B. Run Instream flow recommendation (IFR) and Weighted Usable Area (WUA) executable extrapolation programs in the Decision Support System (DSS) using 2007 hydrology inputs provided by Utah State University (USU); document the steps and locations of input files and programs.

C. Export raw IFR and WUA extrapolation output data to 300 Excel worksheets (one worksheet per hydrologic node).

D. Prepare a summary report documenting the methods, models/software, data sources and related information used to perform the work and high-level results.

E. Investigate the model to identify data gaps, uncertainties, assumptions, and questions about the methods used in the extrapolation process and document the findings in presentations to the WST.

F. Hold collaborative meetings with the WST to present project progress, discussion questions, receive direction and present findings and deliverables.

G. Document methods, findings, and recommendations of this and the previous phase of work in a technical report.

Task Goal Statement:

Using PHABSIM, the RECIPIENT will extract model results from the hydrology and supporting models developed by Utah State University (USU) for the WRIA 1 Watershed Management Project in 2006 to develop approximately 300 weighted usable area (WUA) and instream flow recommendation (IFR) extrapolation outputs for each of the unstudied nodes using the 2007 hydrology modeled data and to further investigate the extrapolation methodologies provided by USU.

Task Expected Outcome:

Using the existing extrapolation and application of the extrapolation methodology to updated hydrology will provide needed information, which could potentially have significant effects on water-need prioritization.

Recipient Task Coordinator: John Thompson

Deliverables

Number	Description	Due Date
4.1	Final QAPP. Upload to EAGL and notify ECOLOGY project manager when done.	
4.2	Output tables displaying raw data for unstudied nodes. Upload to EAGL and notify project manager when done.	

4.3	Technical Memorandum. Upload to EAGL and notify project manager when done.	
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CHANGES TO SCOPE OF WORK

Task Number: 5 **Task Cost:** \$28,788.50

Task Title: Whatcom Groundwater Model Refinements

Task Description:

A seasonal-average transient (SAT) groundwater model of the northern portion of Whatcom County (referred to as the “Whatcom Groundwater Model” or WGM) was completed in 2019. This work was conducted as a WRIA 1 Watershed Management Board project. In 2022, a project was initiated to convert the Whatcom County Groundwater Model to a monthly-average transient model. As this project was nearing completion at the end of 2023, additional hydrogeologic information became available in a portion of the model domain that had uncertainty. This task consists of incorporating the new hydrogeologic information into the model, including calibration and documentation, and a review of data from ongoing hydrogeologic investigation within the Dakota Creek subbasin.

A. The RECIPIENT will refine the local model by:

1. Reconciling information used in the WGM calibration with expert opinion regarding the vertical connection in portions of the Dakota Creek subbasin.
2. Adjusting the WGM calibration consistent with the updated data and insights.

B. The RECIPIENT will update modeling simulations and documentation as necessary to reflect the adjusted WGM.

Task Goal Statement:

The RECIPIENT will gain a better understanding of groundwater movement and the interaction between groundwater and surface water in the Whatcom Groundwater Model domain and will use it to support water management decisions in WRIA 1.

Task Expected Outcome:

The RECIPIENT will conduct the model improvements and document those improvements in a report.

Recipient Task Coordinator: Gary Stoyka

Deliverables

Number	Description	Due Date
5.1	Model documentation providing an overview of the model refinements. Upload to EAGL and notify project manager when done.	
5.2	Electronic copy of model files. Upload to EAGL and notify project manager when done.	

CHANGES TO SCOPE OF WORK

Task Number: 6 Task Cost: \$108,863.00

Task Title: Phase 1 Investigation of Agricultural Tile Drains

Task Description:

The RECIPIENT will conduct the Phase 1 investigation to determine the impacts of agricultural tile drains on stream flows. Work will be conducted within the WRIA 1 Watershed Management Board structure.

A. The RECIPIENT will select three tile drain study locations and conduct outreach to landowners in each study location. The study locations will be in different watersheds to represent a range of hydrologic and hydrogeologic conditions throughout WRIA 1 based on the Whatcom Groundwater Model (WGM), existing hydrogeologic, land use, and water use information. The RECIPIENT will review the existing representation of the streamflow routing network and tile drains in the WGM as part of the study location selection process. It is likely study locations will require cooperation and access permissions from landowners to conduct the studies. If applicable, the RECIPIENT will submit signed landowner agreements for each location. Ideal study locations will include cooperative landowners, known construction details (depth, spacing, area) of installed tile drains completed in the Sumas aquifer near low-flow streams. The goal of collecting field data is to infer domain-wide refinement of tile drain representation in the WGM.

B. The RECIPIENT will prepare a water resources program Quality Assurance Project Plan (QAPP) in accordance with the Washington State Department of Ecology (Ecology) guidelines and specifications. The RECIPIENT will submit to ECOLOGY a draft QAPP for review and a final QAPP for approval. Any monitoring/data collection conducted before the QAPP receives final approval may not be eligible for reimbursement.

C. The RECIPIENT must adhere to the requirements in Task 2 -Cultural Resources Review of this agreement. The RECIPIENT must receive written notice from ECOLOGY prior to proceeding with any work with potential impacts to cultural resources. Work done prior to written notice to proceed will not be eligible for reimbursement. This includes geotechnical work.

D. For each study location the RECIPIENT will install a minimum of three new shallow (~10 feet) drive-point piezometers per study location and monitor a minimum of two new or existing in-stream staff gages upstream and downstream of the point of tile drain discharge. All piezometers, staff gages, and existing wells will be equipped with data logging pressure transducers to record water level and water temperature.

E. The RECIPIENT will collect monitoring data in accordance with the approved QAPP and surface water-groundwater monitoring plans. Groundwater and surface water data will be collected through June 30, 2025. Data collection will include sub-daily monitoring of groundwater and surface water levels using data logging pressure transducers, and monthly site visits to download data loggers and manually measure groundwater levels and streamflow.

F. The RECIPIENT will prepare and submit a final monitoring report documenting the methods and results of the field data collection to the WRIA 1 Team for review and comment prior to preparing the final document.

G. The RECIPIENT will prepare and submit the data collected during the hydrogeologic studies to Ecology through their Environmental Information Management (EIM) database.

Task Goal Statement:

The RECIPIENT will verify the results of the Whatcom Groundwater Model in modeling the impacts of agricultural tile drains on instream flows.

Task Expected Outcome:

The RECIPIENT will complete the field study and use it to refine the Whatcom Groundwater Model.

Recipient Task Coordinator: Gary Stoyka

Deliverables

Number	Description	Due Date
6.1	Final QAPP. Upload to EAGL and notify ECOLOGY project manager when done.	03/31/2025
6.2	Upload to EAGL a signed landowner agreement for each site, if applicable.	03/31/2025
6.3	Submit via email a completed ECY 070-537 (CRR) form and any supplemental cultural resources documentation to the ECOLOGY Project Manager. Do not upload to EAGL.	03/31/2025
6.4	Upload to EAGL a completed ECY 070-560 (IDP) form and notify the ECOLOGY Project Manager when upload is complete. The Project Manager and RECIPIENT must review the IDP during a project kickoff or pre-construction meeting.	03/31/2025
6.5	Submit via email to the ECOLOGY Project Manager maps of monitoring locations. Do not upload to EAGL.	03/31/2025
6.6	Submit an email to the ECOLOGY Project Manager confirming the RECIPIENT and all contractors, subcontractors, and volunteers performing work onsite have viewed the CRR video.	03/31/2025
6.7	Upload to EAGL email(s) from ECOLOGY with Notice(s) to Proceed.	03/31/2025
6.8	Submit maps of drain network in study location including layout, depth, and construction details. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
6.9	Submit final monitoring report. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
6.10	Submit monitoring data to ECOLOGY's EIM database. Upload Verification email to EAGL and notify ECOLOGY project manager when done.	06/30/2025

CHANGES TO SCOPE OF WORK

Task Number: 7

Task Cost: \$25,600.00

Task Title: Assess Potential Wetland Enhancement

Task Description:

The RECIPIENT will review water budgets and use the Whatcom Groundwater Model (WGM) to test potential of hypothetical surface water storage reservoirs at current wetland locations in the Stillwater and Upper Bertrand Creek watersheds. Simulations will estimate the potential of the hypothetical reservoirs to augment dry season instream flows in the Stillwater and Upper Bertrand Creeks.

A. EVALUATING WATERSHED QUANTITIES

The RECIPIENT will seek to verify consistency between the Wetland Enhancement design assumptions and the WGM water budget while considering that WGM scenario simulation results may only predict changes below levels that can be reliably measured in the field.

B. MODEL MODIFICATIONS

If sufficient water budget resources are identified in sub task 7 A, the RECIPIENT will modify the WGM to represent surface water storage reservoirs at the wetland locations for seasonal stream flow augmentation to stream segments within 1,000 feet of the proposed locations.

C. SIMULATING AND EVALUATING WETLAND ENHANCEMENT IMPACTS

If results from the preceding sub-tasks support completing the evaluation, the RECIPIENT will construct and perform two enhancement scenarios based on the Monthly Average Transient (MAT) WGM.

Task Goal Statement:

The RECIPIENT will gain a better understanding of the feasibility of constructing wetlands in the subject area to enhance instream flows during critical low flow periods to support water management decisions in WRIA 1.

Task Expected Outcome:

The RECIPIENT will construct the wetland enhancement scenarios and obtain model results which will be summarized in a report.

Recipient Task Coordinator: Gary Stoyka

Deliverables

Number	Description	Due Date
7.1	Update model files. Upload to EAGL and notify project manager when done.	06/30/2025
7.2	Submit Simulation output files. Upload to EAGL and notify project manager when done.	06/30/2025

CHANGES TO SCOPE OF WORK

Task Number: 8

Task Cost: \$99,836.00

Task Title: Musto Marsh and Springsteen Lake Water Storage

Task Description:

The RECIPIENT will assess the feasibility of Musto Marsh and Springsteen Lake water storage projects. These projects are prioritized by the WRIA 1 Watershed Management Board to meet water needs of users and support salmon populations in the Nooksack River basin.

- A. The RECIPIENT must follow Task 2-Cultural Resources Review and receive written notice from ECOLOGY before any work with potential cultural impacts. Ground-disturbing work done without prior approval will not be reimbursed. The RECIPIENT will obtain landowner approvals and submit agreements for all monitoring and geotechnical work.
- B. The RECIPIENT will draft a Water Resources Program Quality Assurance Project Plan (QAPP) following Washington State Department of Ecology guidelines, submitting drafts for review and final QAPP for approval. Data collected before QAPP approval may not be eligible for reimbursement.
- C. The RECIPIENT will gather hydrologic data to estimate basin yield for Musto Marsh and Springsteen Lake, comparing it with precipitation and streamflow data. Surface water monitoring instruments will be installed to characterize inundation and streamflow.
- D. Water level gauges will be placed upstream of the Musto Marsh outlet culvert and in Springsteen Lake near its outlet. Site visits will occur quarterly to download data and measure streamflow, producing a stage/discharge curve. Data will be summarized in a report.
- E. The RECIPIENT will analyze potential timing for filling and emptying storage volumes and its effect on downstream flows. They will correlate hydrologic data with nearby gauges to estimate runoff/yield and analyze reliability during various water years, including droughts. Climate change effects will be estimated using University of Washington Climate Impacts Group data, and results will be summarized in a technical memorandum.
- F. Baseline environmental conditions will be evaluated, including wetland and riparian characteristics, fisheries resources, and potential fish passage improvements. A preliminary cultural resource review and inventory report will be conducted, and a technical memorandum with recommendations to mitigate potential impacts will be prepared.
- G. Geotechnical analysis of potential dam sites will involve drilling one test hole near the outlets at Musto Marsh and Springsteen Lake to identify impervious layers. Drilling at Springsteen Lake depends on site access. Grain size distribution of soil samples will be analyzed, and results will be summarized in a technical memorandum with design recommendations. As an alternative to drilling, geophysical methods may be used.
- H. The RECIPIENT will develop conceptual designs, technical reports with reservoir size and configuration recommendations, cost estimates, and a framework for further project development.

Task Goal Statement:

The RECIPIENT will gain a better understanding of the feasibility of constructing water storage facilities at Musto Marsh and Springsteen Lake to augment instream flows.

Task Expected Outcome:

The RECIPIENT will complete the additional studies and determine next steps in the evaluation of these proposed projects, if feasible

Recipient Task Coordinator: Gary Stoyka

Deliverables

Number	Description	Due Date
8.1	Final QAPP. Upload to EAGL and notify ECOLOGY project manager when done.	03/31/2025
8.2	Upload to EAGL a signed landowner agreement for each site, if applicable.	03/31/2025
8.3	Upload to EAGL a completed ECY 070-560 (IDP) form and notify the ECOLOGY Project Manager when upload is complete. The Project Manager and RECIPIENT must review the IDP during a project kickoff or pre-construction meeting.	03/31/2025
8.4	Submit via email to the ECOLOGY Project Manager maps of monitoring locations. Do not upload to EAGL.	03/31/2025
8.5	Submit an email to the ECOLOGY Project Manager confirming the RECIPIENT and all contractors, subcontractors, and volunteers performing work onsite have viewed the CRR video.	03/31/2025
8.6	Upload to EAGL email(s) from ECOLOGY with Notice(s) to Proceed.	03/31/2025
8.7	Submit Hydrologic Data and Analysis technical memorandum. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
8.8	Submit Environmental baseline review technical memorandum. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
8.9	Submit Geotechnical technical memorandum. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
8.10	Submit Conceptual design technical report. Upload to EAGL and notify ECOLOGY project manager when done.	06/30/2025
8.11	Monitoring data. Submit into ECOLOGY's EIM database. Upload Verification email.	06/30/2025

Funding Distribution Summary

Recipient / Ecology Share

Funding Distribution Name	Recipient Match %	Recipient Share	Ecology Share	Total
One Time Grants Program	0 %	\$ 0.00	\$ 700,000.00	\$ 700,000.00
Total		\$ 0.00	\$ 700,000.00	\$ 700,000.00

AUTHORIZING SIGNATURES

All other terms and conditions of the original Agreement including any Amendments remain in full force and effect, except as expressly provided by this Amendment.

The signatories to this Amendment represent that they have the authority to execute this Amendment and bind their respective organizations to this Amendment.

This amendment will be effective 07/01/2024.

IN WITNESS WHEREOF: the parties hereto, having read this Amendment in its entirety, including all attachments, do agree in each and every particular and have thus set their hands hereunto.

Washington State
Department of Ecology

Whatcom County Public Works

By: _____
Ria Berns
Water Resources
Program Manager
Date

By: Do not sign this copy

Satpal Singh Sidhu
County Executive
Date

Elizabeth Koza

Do not sign this copy

Public Works Director
Date

Christopher Quinn

Do not sign this copy

Chief Civil Deputy Prosecuting Attorney
Date

Template Approved to Form by
Attorney General's Office