January 15, 2025
To: Representative Helm and Representative Owens, Co-chairs
House Agriculture, Land Use, Natural Resources, and Water Committee

From: Herb Winters and Debra Bunch, Co-conveners
Lower John Day Place-Based Planning Group

Subject: Proposal Submission for the 2025 Water Package

Dear Representatives Helm and Owens,

Thank you for your letter inviting project proposals for consideration in the 2025 Water Package. On behalf of the Lower John Day Place-Based Planning Group, we are pleased to present a list of carefully selected projects that align with our shared goals of fostering a secure and resilient water future for Oregon.

We commend your continued dedication to supporting integrated water resources planning and for recognizing the essential role water plays in the sustainability and prosperity of our state and its communities. Your leadership in addressing these challenges inspires collaboration and innovative solutions at the regional level.

In response to your request, we have identified key projects in the following focus areas:

1. Capacity and Outreach
2. Data, Monitoring, and Analysis
3. Water Conservation
4. Resilience (two projects)

Recognizing the critical importance of resilience, we have included two projects under this category. While we have not proposed a project specifically for water supply at this time, we hope to identify suitable projects in the future.

Enclosed with this letter, you will find a detailed document outlining the specifics of each project. The document includes:

- References to planning documents supporting the identified needs or recommendations.

- Expected benefits and outcomes, including how projects address both instream and out-of-stream uses.

- Project costs and anticipated funding sources.

- Implementation oversight and stakeholder support levels.

The proposed projects and their estimated costs are summarized below:

Project	Cost
Capacity and Outreach	$122,650
Data, Monitoring, or Analysis (Thirtymile Water Budget)	$288,450
Water Conservation (Lower John Day Flow Measurement)	$200,000
Resilience (City of Spray Disaster Mitigation)	$145,000
Resilience (West Branch Fish Passage)	$250,000
Total Estimated Cost:	$1,006,100

These projects reflect a balanced and comprehensive strategy to tackle our region's water challenges. We are confident that their implementation will contribute significantly to building a sustainable and resilient water future for the Lower John Day region.

Thank you for your time and consideration of these proposals. We look forward to collaborating with you and your committee as we work toward shared objectives for Oregon’s water resources.

Sincerely,

Herb Winters and Debra Bunch
Co-conveners
Lower John Day Place-Based Planning Group

Attachment: Lower John Day Place-Based Planning – Project Details

Lower John Day Place-Based Planning Project Details

Project 1: Capacity and Outreach

Project Summary

This initiative ensures ongoing funding and support for the Lower John Day Work Group to actively implement and coordinate the Lower John Day Basin Integrated Water Resource Plan (LJDBIWRP).

Project Activities

- Meeting Facilitation
  - Support for quarterly and annual meetings in both in-person and virtual formats.
  - Assistance with agenda creation, minute recording, and logistical arrangements.
- Subcommittee Coordination
  - Facilitation of specialized subcommittees addressing specific LJDBIWRP implementation areas.
- Outreach and Engagement
  - Regular updates to stakeholders through multiple channels (e.g., newsletters, website, and list serves).
  - Development of outreach materials to encourage broad participation.
- Short Report Development
  - Develop report detailing 25-26 accomplishments, lessons learned, adaptive management strategies, and case-study findings.

Key References to Planning Documents

This project is a cornerstone for the effective execution of the LJDBIWRP, emphasizing stakeholder collaboration and sustained momentum towards achieving the plan's objectives.

Anticipated Benefits

- Advancement of LJDBIWRP Goals
  - Direct implementation of key strategies outlined in the plan.
- Fostering Synergistic Partnerships
  - Improved collaboration among stakeholders to maximize collective impact.
- Adaptive Management
  - Continuous monitoring and evaluation to refine strategies and respond to emerging challenges.

Budget Overview

Item	Description	Cost
Meeting Facilitation	Quarterly and subcommittee meetings; capacity building for co-convenors and partners.	$96,000
Annual Meetings	In-person sessions and field tours.	$8,000
Outreach and Education	Development and management of outreach materials, website, list serves, participation in local events, and activities to increase public awareness or public participation in water management efforts.	$6,000
Short Report Development	Report detailing 25-26 accomplishments, lessons learned, adaptive management strategies, and case-study findings.	$1,500
Administration	Project, fiscal, and grant management.	$11,150
Total Project Cost		$122,650

Implementation Oversight

The Gilliam County Soil and Water Conservation District will oversee the project in collaboration with the Lower John Day Work Group partners.

Additional Support

- Partner Contributions

    - In-kind support from work group partners for meeting facilitation, outreach, and project activities.
- Funding Diversification
    - Efforts to identify and secure additional funding sources to bolster sustainability and enhance project capacity.

Project 2: Data, Monitoring, or Analysis (Thirtymile)

Project Title: Intensive Monitoring and Analysis of Thirtymile Creek Water Budget

Project Summary

This project aims to establish a comprehensive understanding of the Thirtymile Creek water budget through intensive monitoring and analysis. This will involve:

- Surface Water Monitoring: Installing stream gauges at strategic locations to capture real-time flow dynamics.
- Subsurface Flow Assessment: Measuring subsurface flow capacity to determine in-stream flow needs for perennial stream conditions.
- Groundwater Monitoring: Installing groundwater wells to track water table fluctuations and their influence on streamflow.
- Inventory and integration of water temperature data across multiple project partners: Establish a high-resolution stream temperature monitoring network by deploying in-stream temperature sensors and capturing thermal imagery to pinpoint critical cold-water refugia and areas susceptible to thermal stress.
- Water Budget Modeling: Developing a water budget model integrating data from various sources, including AgriMet and OpenET.

Key References to Planning Documents

This project specifically targets five of the ten critical data gaps and research priorities outlined in Chapter 3 (page 52) of the Lower John Day Basin Integrated Water Resource Plan.

- Streamflow Data: Continuous streamflow monitoring at currently ungauged locations.
- In-Stream Flow Needs: Quantifying minimum flow requirements to maintain perennial stream conditions and support aquatic life.
- Groundwater Levels and Trends: Monitoring groundwater levels to understand interactions between surface water and groundwater.
- Water Temperature Data: Collecting high-resolution water temperature data to identify thermal refugia and assess potential impacts of climate change.
- Evapotranspiration Data for Crops: Analyzing evapotranspiration rates to quantify water use by agriculture and its influence on the overall water budget.

Anticipated Benefits

- Multi-Use Outcomes: The improved understanding of Thirtymile hydrology provided by this study could allow for targeted future actions that will enhance late-season flows, to benefit agriculture, rearing juvenile steelhead, and overall stream health.
- Enhanced Understanding: Increased knowledge of seasonal flow patterns, water availability, and key drivers of hydrologic processes.

- Case Study Development: Transforming an informal, closely monitored watershed into a comprehensive case study provides valuable insights for regional water management. It also serves as a model for data collection, monitoring, and analysis in other subbasins of the Lower John Day Basin.
- Expanded Dataset: The creation of a comprehensive dataset to guide future floodplain and upland management strategies.
    - This dataset will also help identify critical perennial cold-water reaches essential for steelhead rearing, enabling targeted restoration efforts that support both agro-ecosystem recovery and long-term ecological sustainability.

Anticipated Costs

Item	Description	Year 1 Cost	Year 2 Cost	Total Cost
Personnel				
Research Technician Salary		$97,000	$97,000	$194,000
Undergraduate Hourly Support	750 hours at $19.80/hour (including fringe benefits)	$7,875	$7,875	$15,750
Equipment				
Section 106 Compliance	Literature review, cultural resource surveys, and reporting	$25,000		$25,000
Shallow Groundwater Wells	Construction of 10 wells along Thirtymile Creek (including start card $350/ea)	$25,000	-	$25,000

Item	Description	Year 1 Cost	Year 2 Cost	Total Cost
Stream Gauges	Construction of eight gauges (pressure transducers, pipes, hardware)	$4,500	-	$4,500
Thermal Imagery Sensor	FLIR Vue Pro R for existing UAS	$4,400	-	$4,400
Field Operations				
Field Vehicle and Mileage	Installation support and monthly maintenance trips	$4,500	$4,500	$9,000
Field Lodging and Meals	Monthly trips (3 days/trip, $150/day for lodging and meals)	$5,400	$5,400	$10,800
Total Project Cost		$173,675	$114,775	$288,450

Implementation Oversight

The project will be collaboratively overseen by Gilliam County SWCD, Oregon State University, and the Oregon Department of Fish and Wildlife ensuring effective coordination and integration of expertise.

Additional Support

- In-Kind Support from ODFW: Field technicians, six hundred thermistors, 5 Sontek devices.
- Funding Diversification: We are actively pursuing additional funding opportunities to enhance project scope and ensure long-term sustainability of monitoring efforts.

Project 3: Water Conservation (Lower John Day River)

Project Title: Implementation of Irrigation Flow-Measuring Devices for Sustainable Water Management in the Lower John Day Basin

Project Summary

This project proposes the installation of 100 irrigation flow-measuring devices in the Lower John Day Basin. These devices will improve water management by providing accurate data on irrigation withdrawals, enhancing compliance with water rights, and optimizing water use efficiency. This initiative directly addresses key recommendations outlined in the Step 5 Report of the Lower John Day Basin Integrated Water Resource Plan.

Project Objectives

- Accurate Flow Measurement: Provide reliable data to support irrigation practices, ensuring efficient water use and compliance with water rights.
- Improved Water Management: Enhance irrigation efficiency to reduce unnecessary water withdrawals, preserving critical streamflows during dry seasons.
- Support Sustainable Agriculture: Strengthen the region's agricultural economy through optimized water delivery and productivity.

Key References to Planning Documents

This project aligns with the following recommendations in the Step 5 Report of the Lower John Day Basin Integrated Water Resource Plan:

- Irrigation Water Management: Facilitates efficient water use by enabling precise flow measurements.
- Streamflow Protection: Supports ecological health by reducing withdrawals and maintaining instream flow.
- Sustainable Water Practices: Advances long-term water resource sustainability in the region.

Anticipated Benefits

- Out-of-Stream Benefits
  - Enhanced irrigation water management.
  - Increased agricultural productivity by ensuring optimal water delivery and reducing waste.
- Instream Benefits
  - Improved streamflow during critical periods, supporting ecological health and aquatic habitats.
  - Support landowners wishing to engage in OWRD's Allocation of Conserved Water process.
  - Contribution to maintaining ecological balance in the basin.
- Broader Impacts
  - Strengthened alignment of agricultural practices with conservation goals.
  - Promotion of sustainable water resource management in the Lower John Day Basin.

Anticipated Costs

Item	Description	Cost
Flow-Measuring Devices	Installation of 100 devices at $2,000 each	$200,000
Total Project Cost		$200,000

Implementation Oversight

The Wheeler Soil and Water Conservation District (SWCD) will oversee project implementation. Their established relationships with local landowners and expertise in water management ensure effective execution.

Additional Support

- Partnerships
  - Contributions and collaboration with the Confederated Tribes of the Warm Springs.

Expected Outcomes

This project is a critical step towards achieving balanced and resilient water management in the Lower John Day Basin. By addressing key recommendations in the regional water resource plan, it promotes sustainable agricultural practices, ecological conservation, and efficient water use. The initiative will serve as a model for integrating water conservation efforts with economic development in similar regions.

Project 4: Resiliency (City of Spray)

Project Title: Mitigating Residential Flooding in Spray, Oregon: A Groundwater Flow Analysis and Feasibility Study

Project Summary

Chronic flooding in the southwest residential area of Spray, Oregon, is causing property damage and threatening resident safety. This project will investigate the underlying groundwater conditions contributing to this problem and evaluate potential solutions to mitigate flood risks

and protect critical infrastructure.

- Historical Data Collection: Compiling and analyzing existing geological, hydrological, and meteorological data to establish a baseline understanding of the groundwater system.
- Groundwater Flow Assessment: Conducting field investigations and developing a groundwater flow model to identify the sources of excess water and pathways of inundation.
- Feasibility Study for Solutions: Evaluating potential mitigation measures, such as improved drainage systems, groundwater pumping, and permeable surfaces, to reduce flooding and protect residential properties.
    - This will include an analysis of cost-effectiveness, environmental impacts, and community acceptance.

Key References to Planning Documents

This project directly supports Objective 3.2 of the Lower John Day Basin Integrated Water Resource Plan, which calls for improved understanding and management of groundwater resources to address flooding and water quality concerns.

It also supports the Critical Issue 8, Outdated and Insufficient Municipal Water and Wastewater Infrastructure, and Strategy 3.1, Assist cities in creating and/or improving Water System Management Plans and/or Water Management and Conservation Plans that identify necessary system improvements.

Anticipated Benefits

- Reduced Flood Risk: Implementation of the recommended mitigation measures will significantly reduce the frequency and severity of flooding in the southwest residential area.
- Improved Infrastructure Resilience: The project will enhance the long-term resilience of critical infrastructure, including roads, sewer systems, and foundations, by mitigating the damaging effects of excess groundwater.
- Enhanced Property Values: By reducing flood risks, the project is expected to increase property values in the affected area.
- Improved Quality of Life: Reduced flooding will improve the safety and quality of life for residents in Spray.

Anticipated Costs

Item	Description	Cost
Historical Data Collection	Compiling and analyzing existing data.	$40,000
Groundwater Flow Assessment	Field investigations, data analysis, and groundwater flow model development.	$65,000

Item	Description	Cost
Feasibility Study	Assessment of potential solutions, including cost-benefit analysis.	$40,000
Total Project Cost		$145,000

Implementation Oversight

The Wheeler Soil and Water Conservation District (SWCD) will lead this project, leveraging its expertise in watershed management and stakeholder engagement. Wheeler SWCD will work closely with the City of Spray to ensure effective coordination and alignment with community priorities.

Additional Support and Community Engagement

The City of Spray will be an active partner in this project, contributing local knowledge, resources, and facilitating community engagement. Public meetings and informational materials will be used to keep residents informed and gather feedback throughout the project.

Project 5: Resiliency (West Branch)

Project Title: West Branch Bridge Creek Fish Passage Restoration and Resiliency

Project Summary

West Branch Bridge Creek has been identified as a top priority for restoration, further study, analysis, and investment under the LJDBIWRP. This project focuses on developing designs to restore salmonid passage at five high-priority barriers within the creek, ensuring access to critical habitats for all life stages under all flow conditions. By addressing these barriers, the project will enhance salmonid resilience, enabling populations to adapt and thrive despite variable environmental challenges.

In 2023, the Wheeler SWCD initiated a comprehensive watershed assessment of West Branch Bridge Creek, with results scheduled for publication in 2025. This assessment will provide vital baseline data and detailed insights to inform the design process and guide targeted restoration efforts. By combining these findings with advanced tools used across the John Day Basin, this initiative will support effective, strategic actions to address key limiting factors and promote long-term ecological health and population stability in the region.

This will involve:

- Barrier Assessment: Conducting detailed assessments of five fish passage barriers to determine the specific nature and extent of the blockages.
- Hydrologic and Hydraulic Modeling: Developing hydrologic and hydraulic models to

understand flow patterns and inform design parameters for fish passage solutions.
- Engineering Design: Preparing fully engineered design sets for the modification or replacement of the five barriers, ensuring compliance with all relevant environmental regulations and best practices.
- Stakeholder Consultation: Engaging with landowners, regulatory agencies, and other stakeholders to ensure project feasibility and address potential concerns.

Key References to Planning Documents

- Lower John Day Basin Integrated Water Resource Plan (LJDBIWRP): This project directly addresses the LJDBIWRP's emphasis on restoring instream connectivity and improving fish passage throughout the watershed. It explicitly addresses critical issue 10, fish passage barriers.
- Oregon Department of Fish and Wildlife (ODFW) Fish Passage Prioritization: The five barriers included in this project are identified as high-priority barriers in the ODFW's fish passage database, underscoring their significance for salmonid recovery.

Anticipated Benefits

- Improved Fish Passage: Restoration of access to critical spawning and rearing habitat for salmonids, including ESA-listed steelhead and Chinook salmon.
- Enhanced Resilience: Increased habitat connectivity and resilience to the effects of climate change, allowing fish to better adapt to changing environmental conditions.
- Ecosystem Restoration: Improved ecological function and biodiversity within West Branch Bridge Creek and its tributaries.
- Water Quality Benefits: Potential improvements in water quality resulting from restored natural flow regimes.

Anticipated Costs:

Item	Description	Total Cost
Personnel		
Engineering Design and Consultation	Detailed design development for five barriers	$190,000
Project Management	Oversight and coordination of project activities	$15,000
Surveys and Assessments		
Hydrologic and Hydraulic Modeling	Analysis of flow patterns and design parameters	$10,000

Item	Description	Total Cost
Permitting and Compliance		
Environmental Permitting	Preparation and submission of permit applications	$10,000
Section 106 Compliance	Literature review, cultural resource surveys, and reporting	$25,000
Total Project Cost		**$250,000**

Implementation Oversight:

This project will involve collaboration between the Wheeler Soil and Water Conservation District (WSWCD), the Mid John Day Watershed Council, and the Oregon Department of Fish and Wildlife (ODFW).

Additional Support:

- **In-Kind Support from ODFW:** Fish passage expertise, technical assistance with design review, and potential on-the-ground support during implementation.

Funding Diversification:

We are actively pursuing additional funding opportunities to expand project scope and ensure the long-term success of restoration efforts.

Conclusion

The outlined projects collectively address critical water resource challenges within the Lower John Day Basin. By improving water management, supporting ecological restoration, enhancing agricultural sustainability, and mitigating community risks, these initiatives represent a coordinated approach to achieving integrated water resource goals. Each project leverages local partnerships, evidence-based planning, and targeted investments to ensure long-term benefits for stakeholders across the basin.

Summary Budget Table

Project	Year 1 Cost	Year 2 Cost	Total Cost
Capacity and Outreach	$61,325	61,325	$122,650
Data, Monitoring, or Analysis (Thirtymile)	$173,675	$114,775	$288,450
Water Conservation (Lower John Day)	$200,000	-	$200,000
Water Supply (City of Spray)	$145,000	-	$145,000
Resiliency (West Branch)	$250,000	-	$250,000
Total	$830,000	$176,100	$1,006,100