R & E Grant Application 25-27 Biennium

Project #: 25-026

GRWB STEP egg counter

Project Information

Requested Cycle:	25-3
R&E Project Request:	$4,000
Other Funding:	$8,000
Total Project:	$12,000
Spending Start Date:	7/1/2025
Spending End Date:	6/30/2027
Project Start Date:	7/1/2025
Project End Date:	6/30/2027
Organization:	ODFW-Roseburg office

Applicant Information

Name:	Levi Simmons
Address:	4162 N. Umpqua Hwy. Roseburg, OR 97470
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Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Authorized Agent

Name:	Deborah Yates
Address:	P.O. Box 235 Reedsport, OR 97467
Telephone:	360-270-1686
Email:	daypubs@ymail.com

Location Information

Where is it?

The project will not occur on any property

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

This request is to purchase an egg counter/picker to be used at the Gardiner-Reedsport-Winchester Bay STEP hatchery.

Overall Project Goals

Describe the primary goals or outcomes of the entire project, including elements not requesting funding from R&E.

Accurate estimates of eggs are important to ensure accurate distribution as well as setting feeding schedules. The proposed egg counter will ensure estimate accuracy as well as streamlining the process of removing bad eggs.

Primary objectives of R&E funding

Please describe the measurable objectives for the R&E portion of the funding request.

Purchase, installation, and utilization of the unit starting in the brood year 2026 and indefinitely thereafter.

Current Situation/Justification

Please describe the current situation and explain why this funding is needed.

GRWB STEP is a volunteer organization that does not generate income. The need for an egg counter has been regularly discussed by the board and the ODFW STEP biologist. The amount needed to purchase this unit exceeds that of a STAC mini-grant, and therefore we are seeking additional funding. This will provide a useful tool towards greater success at the volunteer hatchery.

Recreation and Commercial Benefit

This project will provide benefits to:

Recreational fisheries

Explain how this project will contribute to current (and/or potential) fishing opportunities, access, or fisheries management.

The organization provides fall Chinook that are available for harvest in the lower Umpqua and ocean fisheries.

Percent benefit split between Commercial and Recreational anglers:

5 % Commercial
95 % Recreational

Please explain, or justify, how the percentage split was determined:

This project has been identified as an ODFW priority for:

Does this project directly support implementation of the ODFW Strategic Plan and/or current Fish Division priorities?

Yes

Included in the CMP and HGMP as: stock-151 Lower Umpqua Fall Chinook

Please briefly explain when this was identified as a priority and what process or workgroup was used to identified this as an ODFW priority.

Identify any plan or other document that identifies this priority.

Included in the CMP and HGMP: stock-151 Lower Umpqua Fall Chinook

Is this project part of an approved Salmon-Trout Enhancement Program (STEP) activity?

Yes

GRWB STEP has worked with ODFW STEP since the early 1980s to provide additional fishery opportunities though decades of harvest augmentation production.

This project is intended to benefit the following species:

Fall Chinook Salmon

This project will benefit anglers or fishery by providing:

Hatcheries/Propagation/Liberation

Hatcheries/Propagation/Liberation

Hatchery Name:

Gardiner-Reedsport-Winchester Bay STEP

This is a:

STEP hatchery

As a result of this request hatchery production will:

Maintain

This project will:

Add new or upgrade production/acclimation facilities/capacity.

Fish produced at this facility are for:

Sport harvest

Commercial harvest

Project Description

Schedule

Activity	Date	RE Funding
Purchase equipment	7, 2026	Yes
Install and test equipment	9, 2026	No
Implement equipment	11, 2026	No

Permits

Permit	Secured?	Date Expected
	No	

Project Design and Description

Please describe in detail the methods or approach that will be used to achieve the project objectives.

Once the purchase has been made, the group will run water and air supplies to the unit. Testing

will begin shortly thereafter. Implementation will begin once viable eggs have been collected around October - November.

Engineering

Does the project involve capital improvement, engineering, site grading or other construction?

No

Project Management and Maintenance

What is the life expectancy of R&E funded construction, structures, equipment, supplies, data or fishery?

Equipment to be used indefinitely

Who is responsible for long term management, maintenance, and oversight of the project beyond what is funded by R&E.

GRWB STEP will maintain the equipment

Will the project require ongoing maintenance?

No

Is there a plan to collect baseline data and to conduct monitoring efforts to measure the effectiveness of the project?

No

Project Funding

Funding

Have you applied for OWEB funding for this project?

No

Has this proposal, or similar proposal for this project location, previously been denied by OWEB or other funding source?

No

Other Funding Source	Type	Secured	Dollar Value	Comments
STAC mini-grant	In-Kind	Pending	2,000	
		Total	2,000	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
GRWB STEP Volunteers	200	30	6,000			6,000
		SUBTOTAL	6,000			6,000
IN-HOUSE PERSONNEL						
		SUBTOTAL				
CONTRACTED SERVICES						
		SUBTOTAL				
TRAVEL						
		SUBTOTAL				
SUPPLIES/MATERIALS						
		SUBTOTAL				
EDUCATION/OUTREACH						
		SUBTOTAL				
EQUIPMENT						
Jensorter - Model JB			2,000		4,000	6,000
		SUBTOTAL	2,000		4,000	6,000
FISCAL ADMINISTRATION						
		SUBTOTAL				
		BUDGET TOTAL	8,000	0	4,000	12,000

Internal Review Results

Review Score: 3.8 out of 5

(1 = Do Not Fund, 2 = Strengthen Proposal, 3 = Recommend with Conditions, 4 = Recommend, 5 = Strongly Recommend)

Summary of Review Team Comments

The internal review team was supportive of this project and gave this project a combined score of 3.8.

Specific Review Team Comments

The review team would like to see more clarification about the current process for estimating egg take and clarify the need for this equipment.

Please provide some additional information to help someone unfamiliar with these types of projects understand the need for the egg counter. Are the fish at GRWB spawned at the facility, or are they spawned at another hatchery and then brought to GRWB for rearing?

Specific Review Team Questions

What is the current method that is being used to pick and enumerate eggs at the hatchery?

GRWB STEP is involved in every step of the production program. Volunteers begin by trapping brood near the release site in early September. Brood adults are held at GRWB until ready to spawn, typically in late October. Fish are spawned at the GRWB STEP hatchery. The current method used to enumerate eggs is a Von Bayer volumetric estimation at the time of spawning for an initial estimate. This method is accomplished by aligning eggs into a twelve inch "trough", and using an established correlation between number of eggs that fit within in trough with number of eggs per fluid ounce. Th number of eggs/oz is then multiplied by the number of total ounces to yield a rough estimate. The Von Bayer method is very rudimentary, and many hatchery staff adjust this estimate based on prior experience. Typically, we subtract 10% to get us closer, but have had higher discrepancies on occasion. Greater accuracy would be beneficial for allocating eggs for distribution (see question three) and setting feed schedules. Overestimation in the past has caused problems with overfeeding and water quality concerns related to decaying food, resulting in unnecessary losses.

Picking has traditionally been done by hand after shocking eggs. Under optimal circumstances, around 10% or less of the total eggs are picked by volunteers. This number is tallied and subtracted from the original estimate; however, there are occasionally small "mats" of fungus and dead eggs, that make it impractical to get a loss estimate, and therefore will do a second Von Bayer estimate after shocking if needed.

Once eggs have been picked and distributed, around 90k eggs remain at GRWB STEP to be reared to the presmolt stage and released in early June.

Are there other egg counters that belong to other hatcheries located nearby that could be used to count eggs at the Gardinier/Reedsport facility?

We have considered this possibility, but have not pursued this for a few reasons. Foremost, GRWB STEP is an independent entity from ODFW. Lending equipment from ODFW to an independent entity requires signed property lending agreements that shifts financial liability to the group, provided a hatchery is willing to part with equipment during a time they may need to use it as well. Furthermore, most ODFW hatcheries that use egg counters/pickers use equipment that has greater capacity to process many more eggs at higher speeds (in terms of millions of eggs), which is reflected in much higher financial liability ($10k+) if this equipment

were to be damaged in transport, set up, or use. Given the relatively minor cost of the unit in the proposed grant, we feel it presents less risk to the group and ODFW hatcheries and more closely aligns with the needs of GRWB STEP.

How many eggs are anticipated to be picked or counted using this egg counter? What are the current production goals at this facility?

The current programs supported by the fall Chinook eggs collected by GRWB STEP requires around 245k eggs. The eggs collected at GRWB STEP are allocated into batches that support two separate production programs.

Specifically:

1) a STEP program for 70k presmolts to be reared at GRWB STEP, and,

2) 100k smolts that are reared at one or more ODFW hatcheries.

The much greater precision that would be afforded by an egg counter would be very beneficial for ensuring proper distribution to the different locations. Additionally, having a more robust estimate would help remove uncertainty regarding any potential losses and this information could help identify areas in which we can improve our rearing methods into the future.

Additional Files

Budget Information

Maps

Photos

Design Information

Management Plans and Supporting Documents

Permits and Reviews

Partnerships

Public Comment

Administrative Documents

- Signature Page

Completion Report

A completion report has not been submitted for this project.