R & E Grant Application 25-27 Biennium

Project #: 25-028

Metolius Pond - Aeration System

Project Information

Requested Cycle:	25-4
R&E Project Request:	$9,900
Other Funding:	$2,320
Total Project:	$12,220
Spending Start Date:	8/1/2026
Spending End Date:	8/30/2027
Project Start Date:	8/1/2026
Project End Date:	8/30/2027
Organization:	ODFW- Eastern Region - Bend Office

Applicant Information

Name:	Jennifer Luke
Address:	61374 Parrell Road Bend, OR 97702
Telephone:	541-388-6350 x225
Email:	jennifer.a.luke@odfw.oregon.gov

Past Recommended or Completed Projects

Number	Name	Status
17-016	Youth Angling and Acclimation Pond Phase 2	Approved

Authorized Agent

Name:	Gerald George
Address:	61374 Parrell Rd. Bend, OR 97702
Telephone:	541-388-6049
Email:	Gerald.J.George@ODFW.Oregon.Gov

Location Information

Where is it?

The project will occur on public land owned or managed by the applicant

Site Description

Street Address, nearest intersection, or other descriptive location.

Metolius Pond, Old Fish Hatchery Rd, Camp Sherman, OR

Directions to the site from the nearest highway junction.

From Sisters drive approx. 9 miles NW on US-20/OR 126 and Turn Right (look for the Camp Sherman / Metolius River Recreation Area sign)

- Veer Left at fork and head to Camp Sherman (2.5 mi) on USFS 1420
- Turn Right onto Old Fish Hatchery Lane, go to end road
- Look for ODFW Metolius Pond Sign, stay left and park in gravel parking lot (next to RV/host site). Walk short distance to pond.

Following project completion, public anglers will be allowed the following level of access to the project site:

Full access

Please describe what leases, easements, agreements are in place to ensure angler access to the project site, and what is the length of each agreement.

The 15 acre property is owned by the Oregon Department of Fish & Wildlife. It has been open to the public for fishing since 2016.

Dominant Land Use Type:

Forest
Wetland
Rural residential

Project Location

General Project Location.

County:	Jefferson
Town/City:	Camp Sherman
ODFW Dist:	Upper Deschutes
Stream/Lake/Estuary Name:	Metolius Pond
Sub-basin:	Metolius River
Tributary of:	Upper Deschutes River

Specific Project Location.

Latitude	Longitude
121.3872	44.2740

Project Summary

Project Summary

Please provide a couple sentence summary of the proposal.

In 2016, ODFW used R&E funding to convert a former hatchery into a youth fishing pond. Excessive algae and weed growth now threaten water quality and fishing opportunities. Funding for an aerator will improve water quality and sustain fishing access for families, youth, and beginning anglers.

Overall Project Goals

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

The Metolius Pond provides easy angling for youth and disabled anglers. Unfortunately, increasing weed and algae growth has reduced fishing quality despite non-toxic treatments and manual removal. Installing an aerator will improve oxygen levels, reduce algae, and help sustain an easy angling opportunity for young and disabled anglers.

Primary objectives of R&E funding

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

R&E funds will be used to purchase and install a solar-powered aerator at Metolius Pond by 2028. The aerator will improve water quality, reduce algae growth, and enhance fishing access and experience for youth and disabled anglers using the pond.

Current Situation/Justification

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

Metolius Pond was developed by the Oregon Department of Fish and Wildlife to provide an easily accessible fishing opportunity for youth and disabled anglers. The site includes a fishing pond, parking area, RV host site, and restroom facilities, and it is regularly used by families, school groups, and community programs.

In recent years, excessive weed and algae growth have negatively impacted water quality and reduced fishing access and enjoyment. ODFW and volunteers have attempted several non-toxic management methods, including pond dye applications, beneficial bacteria treatments, and manual weed and algae removal. While these efforts have provided temporary relief, they have not solved the long-term problem.

Funding is needed to purchase and install a solar-powered aerator to improve water circulation and oxygen levels within the pond. Increased oxygen supports beneficial bacteria that consume excess nutrients and helps bind phosphorus to sediments, making nutrients less available for algae growth. The aerator will help create a healthier aquatic environment, improve fishing conditions, reduce maintenance needs, and ensure the pond remains a sustainable and enjoyable resource for youth and disabled anglers.

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.

Metolius Pond provides an important, easily accessible fishing opportunity for youth, families, school groups, and disabled anglers. The pond is regularly used for recreational fishing, educational programs, and youth angling events, helping introduce new anglers to fishing in a

safe and accessible environment.

Unfortunately, excessive algae and weed growth is limiting open water and negatively affected the overall fishing experience. Installing an aerator will improve water circulation and oxygen levels, helping reduce algae growth and maintain healthier pond conditions. In addition, if the source spring that feeds the pond's inlet goes dry, as it did in 2018, there will be no flow through, an aerator will be necessary to maintain trout fishery.

An aerator will increase the usability of the pond throughout the fishing season and help sustain recreational fishing opportunities for the public. Based on current use and public feedback, the aerator is expected to improve angler satisfaction, increase participation in youth and family fishing activities, and support ODFW's long-term fisheries management and angler recruitment goals.

Percent benefit split between Commercial and Recreational anglers:

0 % Commercial
100 % Recreational

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

This project will provide direct benefits to recreational anglers by improving water quality, fishing access, and the overall angling experience at Metolius Pond. The pond is managed specifically for youth, families, school groups, and disabled anglers and does not support commercial fishing activities. Therefore, the project benefits are considered 100% recreational and 0% commercial.

This project has been identified as an ODFW priority for:

Local/watershed

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

Unknown
Yes. This project supports ODFW's goals of providing accessible recreational fishing opportunities, recruiting and retaining anglers, and maintaining healthy aquatic habitats. Improving water quality at Metolius Pond will enhance fishing access and long-term sustainability for youth, families, school groups, and disabled anglers.

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

This project supports ODFW's goals of providing accessible recreational fishing opportunities, recruiting and retaining anglers, and maintaining healthy aquatic habitats. Improving water quality at Metolius Pond will enhance fishing access and long-term sustainability for youth, families, school groups, and disabled anglers.

Identify any plan or other document that identifies this priority.

25 year strategic plan

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

Yes
Yes. The construction of Metolius Pond was approved by the Salmon-Trout Enhancement Advisory Committee in 2014. Currently, STEP biologist Jen Luke oversees the pond and works with local fishing clubs that utilize the pond and property for youth fishing clinics and educational angling activities.

This project is intended to benefit the following species:

Rainbow Trout

This project will benefit anglers or fishery by providing:

Angling Opportunity
Education/Outreach

Angling Opportunity

This project will:

Improve the opportunity for anglers to catch fish (better stocked fish, trapping)

Education/Outreach

This project will:

Teach the public about fishing basics, fishing gear, fishing techniques, and/or fishing etiquette

The main focus of this project is to:

Support established education program

Is this education/outreach associated with ODFW efforts?

Yes
STEP
Angler education
ODFW facility

This education/outreach effort will target:

Youth (< 18 years old)
Families (Youth and Adult family members/mentors)
New anglers
Current anglers
Underserved populations
School groups

Number of people targeted by this proposal:

1000

Estimate the average amount of time that each attendee will participate in the proposed effort.

6

Explain the duration/frequency of the proposed outreach effort.

Will the developed materials be available for use by other organizations or the public(i.e curriculum, teaching techniques, educational strategies, materials)?

No

Project Description

Schedule

Activity	Date	RE Funding
Install solar aerator.	April 2027	Yes

Permits

Permit	Secured?	Date Expected

NA	No	

Project Design and Description

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

A small solar powered aerator woulf be installed next pond.

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?

A solar-powered aerator with battery backup is expected to last 10–15 years, with periodic battery or panel replacement as needed. Oregon Department of Fish and Wildlife staff will maintain the equipment, while the STEP Program will provide ongoing staff support and funding for maintenance.

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

The Oregon Department of Fish and Wildlife's STEP Program will provide ongoing staff support and maintenance funding. An on-site volunteer RV host performs routine day-to-day maintenance and monitors the aerator to help ensure reliable operation.

Will the project require ongoing maintenance?

Yes

An on-site volunteer RV host will perform routine maintenance by ensuring the solar panels remain clean and undamaged and verifying the aerator is operating properly.

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

Yes

Pond monitoring will include water quality testing for temperature, dissolved oxygen, carbonate hardness, pH, nitrite, and nitrate to evaluate aerator performance and track improvements in overall pond health. Baseline data was collected.

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
Jennifer Luke STEP Biologist	In-Kind	Pending	2,320	Staff time devoted to project

		Total	2,320	

Budget

Item	Unit Number	Unit Cost	In-kind or non-cash contributions	Funding from other sources	R&E Funds	Total Costs
PROJECT MANAGEMENT						
Jennifer Luke - STEP Biologist	40	58	2,320			2,320
		SUBTOTAL	2,320			2,320
IN-HOUSE PERSONNEL						
		SUBTOTAL				
CONTRACTED SERVICES						
Installation contracted Clearwater Pondcare	1	400			400	400
		SUBTOTAL			400	400
TRAVEL						
		SUBTOTAL				
SUPPLIES/MATERIALS						
		SUBTOTAL				
EDUCATION/OUTREACH						
		SUBTOTAL				
EQUIPMENT						
Pond Aeration System Solar		9,500			9,500	9,500
		SUBTOTAL			9,500	9,500
FISCAL ADMINISTRATION						
		SUBTOTAL				
		BUDGET TOTAL	2,320	0	9,900	12,220

Internal Review Results

Review Score: 4.1 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 IRT was supportive of the project, and gave it a combined score of 4.1.

Specific Review Team Comments

A strong point of this is that STEP will be used to for future maintenance funding. The volunteer host will be around to help maintain the aerators.

Excessive aquatic vegetation and algae are a common issue across many ODFW fishing ponds. This low-cost solar-powered aeration project shows real promise for Metolius Pond and could serve as a useful model for other sites. Youth and ADA angling ponds offer unique opportunities that are highly sought after but remain limited.

Specific Review Team Questions

Does this pond freeze? Would the aerator be removed seasonally when water quality is less of an issue?

Yes, the pond does freeze, although it depends on the winter. Last winter was relatively warm, and the pond was only frozen for a couple of weeks, with relatively thin ice.

If the pond freezes and there is a layer of snow on top of the ice, that would significantly limit algae growth by reducing the amount of sunlight reaching the water.

Because water quality is less of a concern when the pond is frozen, I think the aerator could be removed seasonally during the winter. Removing it would also help prolong the life of the equipment. We could reinstall it in the spring when temperatures rise and algae growth becomes more of a concern.

I am curious if the aerator will take care of the problem. Or is this experimental?

Since we have not previously used an aerator in this pond, I would consider it somewhat experimental. I don't expect the aerator alone to eliminate the algae, but I believe a combination of weed raking, winter freezing (or pond dye to limit sunlight), and aeration could significantly curb algae growth.

The algae itself doesn't appear to be harming the fish, but it is making fishing difficult and taking the "easy" out of "easy angling." My bigger concern is what happens as the algae decomposes on the bottom of the pond. Over several years, that decomposition could contribute to oxygen depletion, which could eventually create problems for the trout.

The aerator should help address that concern by improving oxygen levels and circulation, but since we haven't tried one in this pond before, we'll need to monitor the results and see how effective it is.

Additional Files

Budget Information

Maps

Photos

- Metolius Pond Algae Free
- Metolius Pond Fishing in Algae
- Metolius Pond Too Much Algae

Design Information

- Aeration System — *Solar aeration sysetm*

Management Plans and Supporting Documents

Permits and Reviews

Partnerships

Public Comment

Administrative Documents

- Signature Authorization Page Jennifer Luke

Completion Report

A completion report has not been submitted for this project.