



R & E Grant Application 11-13 Biennium

Project #:
11-132

Alsea Winter Steelhead Project Phase II

Project Information

R&E Project Request: \$9,150.00
Match Funding: \$6,000.00
Total Project: \$15,150.00
Start Date: 12/10/2012
End Date: 6/29/2013
Project Email: derek.r.wilson@state.or.us
Project Biennium: 11-13 Biennium
Organization: ODFW - Newport

Applicant Information

Name: Derek Wilson
Address: 2040 Marine Science Drive
Newport, OR 97365
Telephone: 541-867-4741 x236
Email: derek.r.wilson@state.or.us

Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Project Summary

This project is NOT part of ODFW's 25 Year Angling Plan.

Activity Type: Monitoring

Summary: This is phase II of a project designed to evaluate performance of hatchery steelhead released in the Alsea River Basin and other areas in the mid Oregon Coast. Phase I (completed) and II (proposed) of the project entails uniquely marking hatchery steelhead released in the Alsea Basin from two hatchery broodstocks and from smolts released directly from Alsea Hatchery and in the lower Alsea River. Contribution to angler harvest and tendency to stray will be assessed for each release group in both phase I and II. The project will also include uniquely marking hatchery steelhead smolts released into the Siuslaw and Yaquina basins to determine if these releases are the source of unexplained hatchery strays observed in the Alsea Basin.

Objectives: The project objectives are to collect monitoring information that can be used to improve angler benefits from Alsea hatchery steelhead production while minimizing stray hatchery fish spawning in natural habitats. The

specific objectives are: 1) to determine if a recently developed steelhead broodstock from wild fish contributes to fisheries at higher rates than traditional Alsea hatchery broodstock that was developed in the 1930s; 2) to determine if shifting the release location of one third of the smolts (40,000) to the lower river helps re-establish a fishery in this area without contributing excessively to straying; 3) to determine if the out of basin hatchery steelhead observed in the Alsea are from the hatchery releases in the Siuslaw or Yaquina basins.

Fishery Benefits:

Recreational fisheries will benefit because the information from this project will inform managers on methods to produce and release hatchery steelhead for high angler benefit. It will also benefit anglers by giving managers the information needed to avoid excess hatchery strays. Excess hatchery strays could impact angler benefits by reducing productivity of wild steelhead and/or result in management or legal decisions to reduce hatchery releases.

Watershed Benefits:

The benefit to the watershed is providing the scientific information to manage hatchery programs so they are compatible with wild production. The information from this study will help reduce incidence of stray hatchery steelhead observed in natural habitats of the Alsea Basin. Recent year average incidence of stray hatchery steelhead in the Alsea are estimated at 17% of the returning adult steelhead based on observations at three fish traps. The management goal is to reduce stray hatchery fish to less than 10% of the adult steelhead observed at these same locations.

Current Situation:

Currently it is unknown if the new broodstock from wild steelhead increases fishery benefits over the traditional broodstock. It is also unknown if the recent shift in release location of 40,000 hatchery steelhead smolts to the lower river will increase angler benefits without producing excessive straying. The source of the out of basin stray hatchery steelhead in the Alsea Basin is unknown, consequently management lacks the scientific information needed to understand and address the issue.

Alternatives:

A wide variety of alternative marking schemes for the smolts were considered. Alternative monitoring and research proposals for hatchery steelhead have been extensively considered in discussions with local fishing and conservation interests, with ODFW fish management and research staff, and with the Oregon Hatchery Research Center (OHRC) and OSU staff.

Designer:

The project has been designed by ODFW staff from the North Coast Watershed District, the biometrician from the ODFW Inland Recreational Fishery Program and other ODFW staff working in cooperation with OHRC and OSU.

Methods:

The steelhead smolts will be marked with adipose and maxillary clips in combination with coded wire tags. This will provide sufficient unique mark

groups for the study while avoiding the need for ventral or pectoral fin removal. It will also allow detection of the marks using visual observations and a metal detector thus avoiding lethal sampling to any adult steelhead. Straying will be evaluated based on returns to three established fish traps within the Alsea Basin. Angler harvest will be evaluated with a statistical creel survey.

Inspector:

The completed work on the fin clips will be evaluated through normal ODFW quality control procedures for fin clip success and CWT retention.

Funding Elements:

The R&E funds will be used to mark hatchery steelhead smolts this fall and winter for release in the spring of 2013. The R&E funds will be used specifically to place coded wire tags in ~150,000 hatchery steelhead smolts for release in the Siuslaw Basin, the lower Alsea and the Yaquina. R&E funds are being requested for the placement of the coded wire tags because it was not able to be covered in the ODFW production and marking plans.

During the winter of 2010-11 after plans for steelhead release and marking were in place, Alsea Basin steelhead angler interests were successful in getting an experimental shift in release location for 40,000 winter steelhead smolts to the lower river with the intent of improving fisheries in these lower river areas. An additional mark group is required for this lower river release. A monitoring need also exists to compare performance of the two different steelhead broodstocks released in the Alsea, and to determine the origin of the out of basin adipose only fin clipped strays.

This is the second consecutive year planned to conduct the marking study (Phase II). In future years, R&E proposals (or proposals to other funding sources) will be developed requesting funds for conducting a statistical creel survey that will be used to determine angler harvest of the different mark groups. Creel surveys could begin as early as December 2014 to coincide with the 2 salt returns of the first marked release groups in spring of 2012.

Partners:

Yes

The OHRC will assist in the development and continuation of the project, will operate one of the fish traps used to monitor returning adult steelhead, and will assist in analyzing results. The OHRC may also develop complimentary research on hatchery steelhead associated with this monitoring project.

The Alsea Sportsman's Association and other Alsea angling interests will also assist in the project by keeping records of their catch of steelhead with different marks, assisting in collection of wild broodstock, and assisting in operation of adult fish traps.

Existing Plan:

Yes

The proposal is necessary to meet objectives for hatchery steelhead angler benefits and minimization of straying identified in the Alsea Basin Fish Management Plan.

Affected Contacted: Yes

Affected Supportive: Yes

Affected Comments: Alsea steelhead anglers have been informed of this study during meetings with ODFW staff. The OHRC and its public advisory committee have been briefed on this study at several quarterly meetings. A variety of ODFW staff as well as David Noakes (OSU professor in charge of the OHRC) have provided advice during development of the study plan.

Project Schedule/Participants/Funding

Activity	Date	Participants
Steelhead smolt CWT tagging in December and/or January per crew availability.	12/17/2012	ODFW Tagging Crew
Smolt release at basins included in this study during April to early May.	4/1/2013	ODFW

Affected Species:

Steelhead

Project Permits

This project has no permits.

Project Monitoring

This project has no monitoring.

Project Maintenance

This project has no maintenance plans.

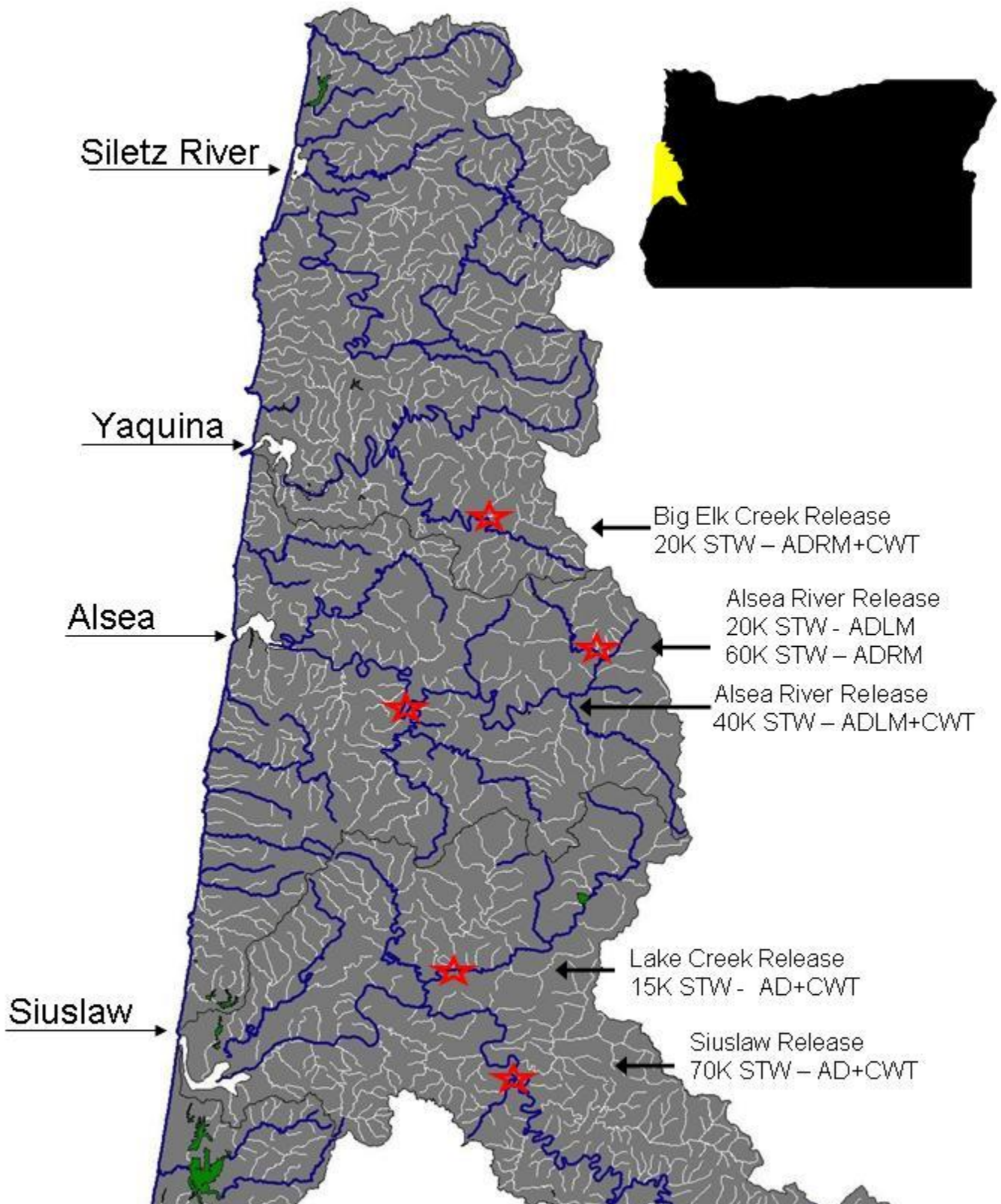
Project Match Funding

Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$9,150.00	\$0.00	\$0.00	NA	\$9,150.00	No	No	
Oregon Hatchery Research Center	\$1,000.00	\$0.00	\$0.00	NA	\$1,000.00	Yes	No	
North Coast Watershed District	\$5,000.00	\$0.00	\$0.00	NA	\$5,000.00	Yes	No	
				Total Match Funding:	\$15,150.00			

Project Budget

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
ODFW CWT trailer and crew from Clackamas	Intergovernmental Agreement Services	150	\$60.00	\$9,000.00	\$0.00	\$9,000.00
Blank Agency CWTs	Supplies/Materials /Services	150	\$41.00	\$150.00	\$6,000.00	\$6,150.00
					Total Budget:	\$15,150.00

Project Map



Project Map 2



Additional Files

Click a link to view that particular file.

[NCWD match](#)

[OHRC match](#)

[Signature Page](#)