



R & E Grant Application 13-15 Biennium

Project #:
13-032

Alsea River Winter Steelhead Research Project

Project Information

R&E Project Request: \$89,000.00
Match Funding: \$59,100.00
Total Project: \$148,100.00
Start Date: 9/10/2013
End Date: 6/15/2015
Project Email: derek.r.wilson@state.or.us
Project Biennium: 13-15 Biennium
Organization: ODFW - Newport

Applicant Information

Name: Derek Wilson
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Past Recommended or Completed Projects

This applicant has no previous projects that match criteria.

Project Summary

This project is part of ODFW's 25 Year Angling Plan.

Activity Type: Research
Summary: The project will cover research to determine hatchery production and release strategies that maximize angler harvest and avoids excess straying. The two year grant proposal entails uniquely marking hatchery steelhead smolt released in the Alsea Basin from two hatchery broodstocks (traditional vs. wild) and from smolt produced by angler caught vs. trap caught brood stock. Contribution to angler harvest and tendency to stray will be assessed for each release group. Adult returns from each component will be monitored for a three year period to account for variability in annual run size and fishing conditions. 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. This project directly relates to the 25 Year Angling Plan's directive, goals 1 and 2, and strategies C,D,E,and J.

Objectives: The project objective is to collect information that can be used by

managers to improve angler benefits from Alsea hatchery steelhead production while minimizing stray hatchery fish spawning in natural habitats. The specific objectives are: 1) 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) determine if there is a difference in angler contribution and stray rates from smolt produced from angler caught wild fish vs trap caught wild fish; 3) 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 while staying within stray rate criteria; 4) 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 from this study because the information gained will inform managers on production and release strategies that will assist in providing a more quality and sustainable fishery, optimize angler benefits, and likely retain and/or recruit anglers into local fisheries. The study planning and implementation has and will largely involve the local angling community and organizations thereby fostering a strong working relationship between fisheries managers and the angling public with a common goal of utilizing the best available science when assessing fishery programs or addressing angler concerns. The partnerships already developed and strengthened by this study can be directly linked to enhancing the fisheries in the Alsea River Basin by uniting many shared interests and goals. The study will also benefit fisheries by providing managers the information needed to avoid excessive hatchery strays. Hatchery strays could impact angler benefits by reducing productivity of wild steelhead and/or result in management or legal decisions to reduce or modify 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.

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 a detectable increase in straying. In addition, there is a strong angler and research interest in evaluating or detecting a difference in angler contribution from broodstock developed from angler caught fish vs trap caught fish.

The source of the out of basin stray hatchery steelhead in the Alsea Basin is unknown and somewhat speculative as to the source. Consequently management lacks the scientific information needed to understand and address this issues.

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. The preferred monitoring project alternative, as outlined in this application, is supported by existing infrastructure and staff resources, will provide tangible results for management consideration, and is scientifically repeatable.

Designer: ODFW staff from the Mid Coast Fish District, biometrician from the ODFW Inland Recreational Fishery Program and other ODFW staff working in cooperation with the Oregon Hatchery Research Center (OHRC) and Oregon State University (OSU).

Methods: The steelhead smolts will be marked with adipose and maxillary clips in combination with coded or blank 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 and/or minimizing lethal sampling to adult steelhead. Straying will be evaluated based on returns to three established fish traps within the Alsea Basin that are used for monitoring purposes and not associated with hatchery releases. Angler harvest will be evaluated with a statistical creel survey designed by the ODFW Inland Fisheries Biometrician in consultation with district staff.

Inspector: The completed work on the fin clips will be evaluated through normal ODFW quality control procedures for fin clip success and Wire Tag retention. District staff will supervise and closely monitor the creel survey.

Funding Elements: The R&E funds will be used to mark hatchery steelhead smolts for release in the spring of 2014. The R&E funds will be used specifically to purchase and place coded or blank wire tags in ~150,000 hatchery steelhead smolts for release in the Siuslaw Basin, the lower Alsea and the Yaquina River. R&E funds are being requested for the placement of the wire tags because this project is not covered in the annual ODFW production and marking plans. Funds will also be used for two EBA seasonal creel surveyors (four month duration each) and to provide for necessary equipment and transportation costs.

This is the third and final year planned to release the smolt by individually identifiable marked groups from the two Alsea winter steelhead stocks and in river release groups, including the Siuslaw and Yaquina rivers smolt releases. This grant will cover the first two years of a creel survey (2013/14 and 2014/15 winter steelhead runs) to coincide with the 2 salt returns from the marked release groups from spring of 2012 and 2013. Subsequent R&E grant proposals may be developed to continue the annual creel survey through the 2015 / 2016 winter steelhead return to coincide with three years of marked smolt release groups from the first component of the

study. This would provide managers with some necessary information needed to effectively evaluate components of the Alsea winter steelhead program. Future grants may also be sought to continue smolt marking and creel surveys to compare angler contribution between angler caught and trap caught wild broodstock.

Partners:

Yes

The OHRC has assisted in the development and continuation of the project, will operate one of the fish traps used to monitor returning adult steelhead, and may 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, components of the 25 Year Angling Plan, and the Native Fish Conservation 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 over the last couple years. 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 tagging in fall of 2013.	10/1/2013	ODFW Tagging Crew
Smolt release at basins included in this study during April to early May in 2014.	4/1/2014	ODFW
Alsea River winter steelhead creel survey for 2013/14 season.	11/18/2013	ODFW
Steelhead smolt tagging in fall of 2014.	10/1/2014	ODFW Tagging Crew
Smolt release in Alsea River for the "vulnerability" component in April/May of 2015.	4/1/2015	ODFW
Alsea River winter steelhead creel survey for 2014/15 season.	11/18/2014	ODFW

Affected Species:

Steelhead

Project Permits

Name	Issued By	Secured?	Date Secured	Date Expected
This project does not require a permit	NA	No	1/1/0001	1/1/0001

Project Monitoring

Organization	Address	Activity	Frequency
Oregon Department of Fish and Wildlife	,	Creel survey monitoring	Daily / weekly / monthly

Project Maintenance

Organization	Address	Activity	Frequency
Oregon Department of Fish and Wildlife	810 SW Alder Street Newport, OR 97365	No specific maintenance is required for this project.	As needed on field gear.

Project Match Funding

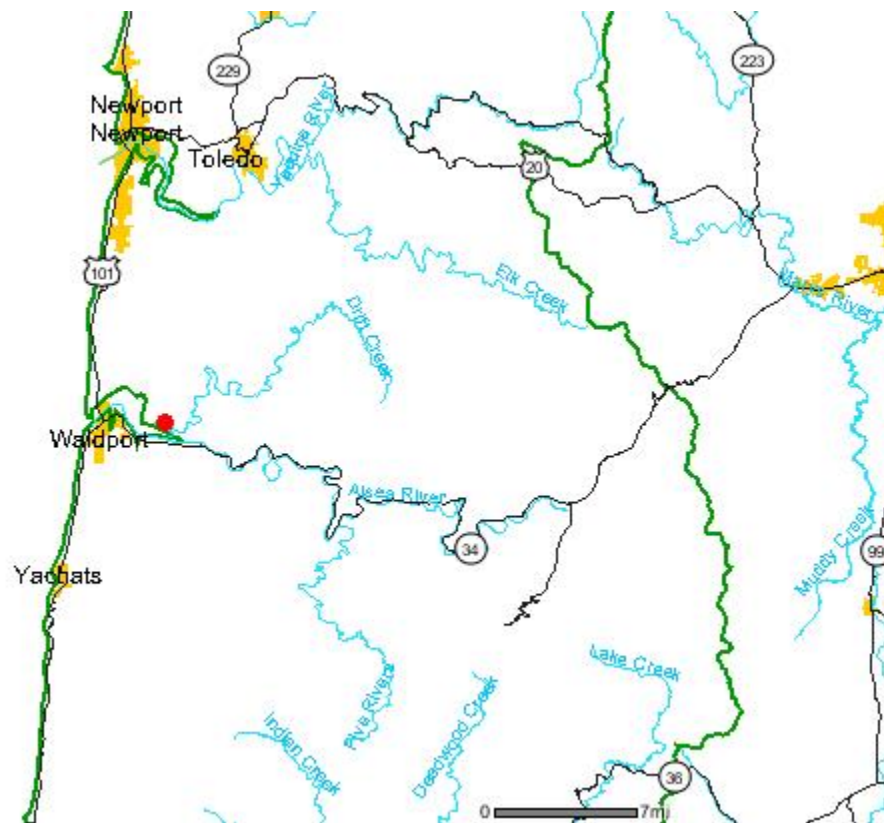
Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$89,000.00	\$0.00	\$0.00	NA	\$89,000.00	No	No	
ODFW Project Monitoring	\$0.00	\$59,100.00	\$0.00	In-Kind match funding is from existing ODFW programs	\$59,100.00	Yes	No	
				Total Match Funding:	\$148,100.00			

Project Budget

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
PDA (researching best option, \$1200 to \$1800)	Equipment	2	\$1,500.00	\$3,000.00	\$0.00	\$3,000.00
2 Seasonal EBA Positions (2013-14 season)	Personnel	8	\$2,775.00	\$22,200.00	\$0.00	\$22,200.00
2 Seasonal EBA Positions (2014-15 season)	Personnel	8	\$2,775.00	\$22,200.00	\$0.00	\$22,200.00
Alsea Hatchery Trap Monitoring (2013-14 season)	Personnel	480	\$20.00	\$0.00	\$9,600.00	\$9,600.00
Alsea Hatchery Trap Monitoring (2014-15 season)	Personnel	480	\$20.00	\$0.00	\$9,600.00	\$9,600.00
District Trap Monitoring (2013-14 season)	Personnel	240	\$20.00	\$0.00	\$4,800.00	\$4,800.00
District Trap Monitoring (2014-15 season)	Personnel	240	\$20.00	\$0.00	\$4,800.00	\$4,800.00
LCM Trap Monitoring (2013-14 season)	Personnel	120	\$20.00	\$0.00	\$2,400.00	\$2,400.00
LCM Trap Monitoring (2014-15 season)	Personnel	120	\$20.00	\$0.00	\$2,400.00	\$2,400.00
NRS 2 Project Manager / 2013-14 Season	Personnel	260	\$25.00	\$0.00	\$6,500.00	\$6,500.00
NRS 2 Project Manager / 2014-15 Season	Personnel	260	\$25.00	\$0.00	\$6,500.00	\$6,500.00
ODFW Biometrician (creel / analysis 2013-14)	Personnel	40	\$30.00	\$0.00	\$1,200.00	\$1,200.00
ODFW Biometrician (creel / analysis 2014-15)	Personnel	40	\$30.00	\$0.00	\$1,200.00	\$1,200.00
OHRC Trap Monitoring (2013-14 season)	Personnel	240	\$20.00	\$0.00	\$4,800.00	\$4,800.00
OHRC Trap Monitoring (2014-15 season)	Personnel	240	\$20.00	\$0.00	\$4,800.00	\$4,800.00
PDA programming and surveyor use training	Personnel	25	\$20.00	\$0.00	\$500.00	\$500.00
Field gear (2013-14 season)	Supplies/Materials /Services	2	\$300.00	\$600.00	\$0.00	\$600.00
Field gear (2014-15 season)	Supplies/Materials /Services	2	\$300.00	\$600.00	\$0.00	\$600.00
ODFW CWT trailer, crew and tags (2013)	Supplies/Materials /Services	150	\$110.00	\$16,500.00	\$0.00	\$16,500.00
ODFW CWT trailer, crew and tags (2014)	Supplies/Materials /Services	60	\$205.00	\$12,300.00	\$0.00	\$12,300.00
2 Vehicles (rental, milage, maintenance 2013-14)	Travel	2	\$2,900.00	\$5,800.00	\$0.00	\$5,800.00
2 vehicles (rental, mileage, maintenance 2014-15)	Travel	2	\$2,900.00	\$5,800.00	\$0.00	\$5,800.00

					Total Budget:	\$148,100.00
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Project Map



Additional Files

Click a link to view that particular file.

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