



# R & E Grant Application 11-13 Biennium

Project #:  
11-071

## *Alsea winter steelhead project*

### ***Project Information***

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**R&E Project Request:** \$6,110.00  
**Match Funding:** \$6,110.00  
**Total Project:** \$12,220.00  
**Start Date:** 12/5/2011  
**End Date:** 3/30/2012  
**Project Email:** robert.c.buckman@state.or.us  
**Project Biennium:** 11-13 Biennium  
**Organization:** ODFW

### ***Applicant Information***

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**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***

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This applicant has no previous projects that match criteria.

### ***Project Summary***

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

**Activity Type:** Monitoring

**Summary:** This project will evaluate performance of hatchery steelhead released in the Alsea Basin and other areas of the mid Oregon Coast. The project will entail uniquely marking hatchery steelhead released in the Alsea Basin from two 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. 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 a

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 benefits. 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 will be 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 the OHRC and Oregon State University.

**Methods:**

The steelhead smolts will be marked with adipose and maxillary clips in combination with blank 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 of 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.

<b>Inspector:</b>	The completed work on the fin clips will be evaluated through normal ODFW quality control procedures for fin clip success and CWT retention.
<b>Funding Elements:</b>	<p>The R &amp; E funds will be used to mark hatchery steelhead smolts this fall and winter for release in the spring of 2012. The R&amp;E funds will be used specifically to place blank CWTs in ~130,000 hatchery steelhead smolts for release in the Siuslaw Basin, the lower Alsea and the Yaquina. R&amp;E funds are being requested for the placement of blank CWTs because it was not covered in ODFW production and marking plans.</p> <p>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.</p> <p>In future years, R &amp; E proposals (or proposals to other funding sources) will be developed requesting funds for marking in additional years (anticipated at two years) and to fund a portion of the statistical creel surveys that will be used to determine angler harvest of the different mark groups.</p>
<b>Partners:</b>	<p>Yes</p> <p>The OHRC will assist in the development 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.</p> <p>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.</p>
<b>Existing Plan:</b>	<p>Yes</p> <p>The proposal is necessary to meet objectives for hatchery steelhead angler benefits and minimization of straying identified in the Alsea Basin Fish Management Plan.</p>
<b>Affected Contacted:</b>	Yes
<b>Affected Supportive:</b>	Yes
<b>Affected Comments:</b>	Alsea steelhead anglers have been informed of this study during meeting with ODFW staff. The OHRC and its public advisory committee have been

briefed on this study at the last two quarterly meetings. A variety of ODFW staff as well as David Noakes (OSU Professor in charge of the OHRC) have provided advise during developement of the study plan.

### ***Project Schedule/Participants/Funding***

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This project has no Schedule/Participants/Funding.

### **Affected Species:**

Steelhead

### ***Project Permits***

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This project has no permits.

### ***Project Monitoring***

Organization	Address	Activity	Frequency
ODFW- Clackamas Fish ID	17330 SE Evelyn St. Clackamas, OR 97015	Place blank CWTs in juvenile steelhead	Once

### ***Project Maintenance***

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Organization	Address	Activity	Frequency
North Coast Watershed District - Newport Field Office	810 SW Alder Street, Unit C Newport, OR 97365	Provide project oversight	As needed

### ***Project Match Funding***

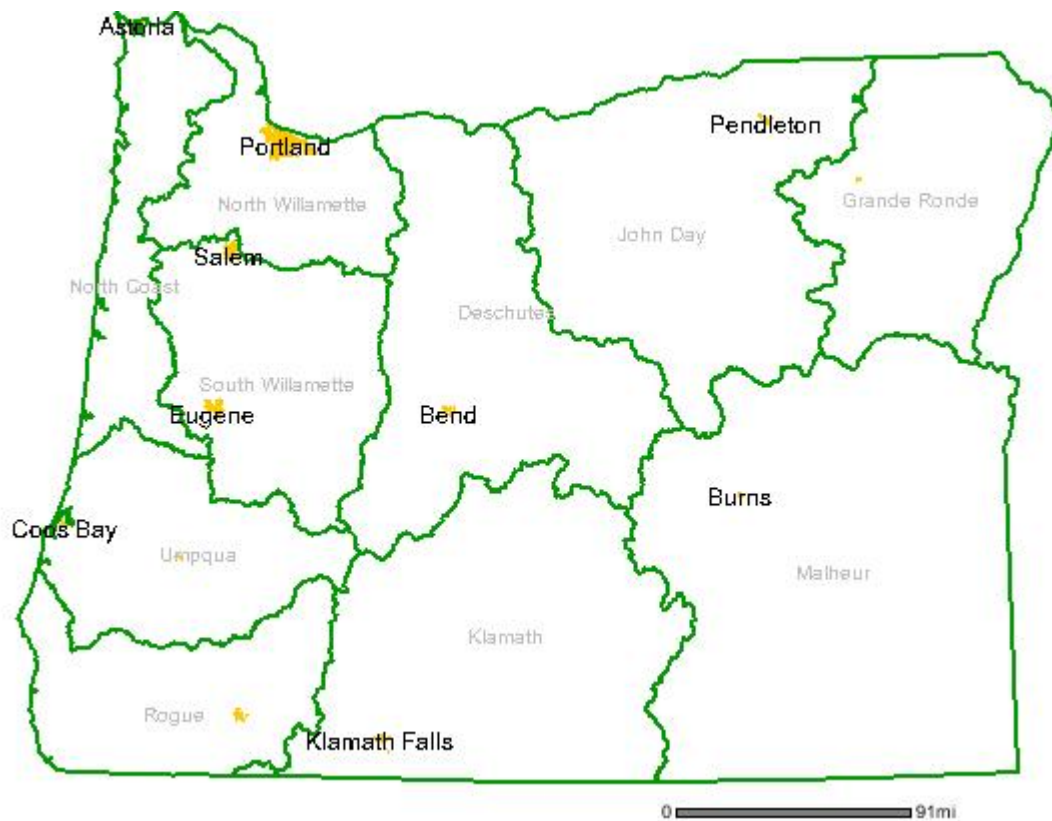
Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$6,110.00	\$0.00	\$0.00		\$6,110.00	No	No	
Oregon Hatchery Research Center	\$6,110.00	\$0.00	\$0.00		\$6,110.00	Yes	No	
				Total Match Funding:	\$12,220.00			

### ***Project Budget***

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
ODFW CWT trailer and crew from Clackamas	Intergovernmental Agreement Services	130	\$55.00	\$3,575.00	\$3,575.00	\$7,150.00
Blank CWTs	Supplies/Materials /Services	130	\$39.00	\$2,535.00	\$2,535.00	\$5,070.00
					Total Budget:	\$12,220.00

## Project Map

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## ***Additional Files***

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Click a link to view that particular file.

[Alsea Basin Map](#)

[Project schedule and participants](#)

[Signature authorization page](#)