



# R & E Grant Application 13-15 Biennium

Project #:  
13-066

## *Auto Fish dual sorter upgrade*

### ***Project Information***

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**R&E Project Request:** \$32,500.00  
**Match Funding:** \$63,750.00  
**Total Project:** \$96,250.00  
**Start Date:** 8/1/2014  
**End Date:** 6/30/2015  
**Project Email:** trevor.r.clark@state.or.us, david.p.fundak@state.or.us  
**Project Biennium:** 13-15 Biennium  
**Organization:** Fish Identification

### ***Applicant Information***

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**Name:** Trevor Clark  
**Email:** trevor.r.clark@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:** Miscellaneous (Enhancement)

**Summary:** Fish Stock Identification works to improve the assessment of fish population numbers to provide the best information possible on which to base management decisions. Every year the number of fish that Fish Stock Identification marks increases and the money to mark these fish becomes much more tenuous, thus it is imperative to become more efficient. Currently there are hatcheries and STEP facilities unable to mark 100% of their fish, this directly affects recreational and commercial fisheries. Improving the efficiency of the tagging and marking trailers will decrease the cost and duration of marking projects and allow more fish to be marked statewide. This can be accomplished by installing Northwest Marine Technologies (NMT) Dual Sorter System in one of our five line AutoFish trailers that ODFW owns.

**Objectives:** Primary Goal: To improve the accuracy, inventory and speed of ODFW AutoFish marking operations.  
The installation of NMT dual sorter system in one of our AutoFish trailers will increase the number of fish processed by 20%-50% with no additional labor costs. It will improve the efficiency and reduce the operating costs of

marking operations, allow us to mark and inventory more fish with the highly efficient AutoFish trailers, reduce stress and mortality caused by manual "hand" marking and the necessary anesthesia and finally reduce marking time and stress at individual hatcheries. Decreased marking costs could result in more money being used for other recreational or enhancement projects.

<b>Fishery Benefits:</b>	<p>Processing fish through AutoFish trailers results in better adipose fin clips and coded wire tag quality than processing each individual fish by hand. Higher accuracy of each will allow more fish to be harvested in fisheries and allow biologist to use the coded wire tag data to regulate fisheries. The Autofish trailers also have superior inventory accuracy compared to manual marking.</p> <p>In 2008, Fish Stock Identification marked and/or tagged 31,859,932 fish at ODFW facilities. At that time, only 38% of the fish were marked with the AutoFish Marking trailer while 62% were marked manually by hand. In 2013, 40,274,778 fish were marked of which 62% were processed by the AutoFish Marking trailer. We would like to continue this upward trend of marking more fish with AutoFish Marking trailers.</p> <p>ODFW Biologists use our numbers to determine the best course of action when assessing fish populations, including enhancement in harvest opportunities while supporting conservation of native fish.</p>
<b>Watershed Benefits:</b>	Processing fish through AutoFish trailers is less stressful and results in less mortality than processing each fish individually by hand in manual marking trailers.
<b>Current Situation:</b>	<p>We currently have three Autofish trailers that have single sorting systems and one autofish trailer that has a dual sorting system. The sorters separate fish by size to 5 or 6 processing lines that clip and tag each fish. Each processing line is set up by the supervisor to accept different size fish that the sorter has separated. Currently the dual channel trailer can process about 70 thousand fish per 8 hr shift while the single channel trailer can only process about 40 thousand per shift, a 40% difference between the two. Idaho Fish and Game has installed dual channel sorters in many of their trailers and has had a significant production increase of 20-50% through each of its trailers. The addition of a dual channel sorter will allow us to process more fish per day which in turn will save the agency time and money of which the later could be used for other recreational or enhancement projects.</p>
<b>Alternatives:</b>	NMT is the sole source provider for all automated marking trailers that the state owns. As a result there are no other cost effective alternatives.
<b>Designer:</b>	Trevor R. Clark and David P Fundak(Senior Fish Marking Technician)-ODFW Fish Stock Identification
<b>Methods:</b>	<p>A: NMT dual sorter Systems</p> <ol style="list-style-type: none"> <li>1) Ordering dual sorter Systems from Northwest Marine Technologies.</li> <li>2) Coordinating the designated trailer for the installation of the new sorter systems.</li> <li>3) Installation and inspection of the new sorter systems.</li> </ol>

<b>Inspector:</b>	Ken Johnson (Project Leader) Trevor R. Clark and David P Fundak (Senior Fish Marking Technician) - ODFW Fish Stock Identification
<b>Funding Elements:</b>	Restoration and Enhancement funds will aid in the purchase and instalation of the dual sorter. It will not pay for the transportation up to Anacortes Washington where Northwest Marine Technologies is located.
<b>Partners:</b>	No
<b>Existing Plan:</b>	Yes
	These upgrades will help support the increase in mark rates identified in the proposed Coastal Multispecies Conservation Plan. For example the mark rate of Coos fall Chinook releases will increase to 100%. The increase mark rate will provide managers options to increase hatchery harvest opportunity and rates and improve monitoring confidence.
<b>Affected Contacted:</b>	Yes
<b>Affected Supportive:</b>	Yes
<b>Affected Comments:</b>	Supportive Individuals Ken Johnson (Project Leader)- ODFW Fish Stock Identification Scott Patterson - Fish Propagation Program Manager

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

Activity	Date	Participants
Send out bid request	9/1/2014	Fish ID
Install sorter	11/1/2014	Contractor
Put back into service	3/1/2015	Fish ID

### **Affected Species:**

Chinook Salmon  
Chum Salmon  
Coho Salmon  
Steelhead

### ***Project Permits***

This project has no permits.

### ***Project Monitoring***

Organization	Address	Activity	Frequency
Fish Identification/Autofish Operators	,	Monitoring of the dual sorter will be done continuously throughout the day whenever the Autofish trailer is running because it is such a vital and important piece of equipment.	Daily

### ***Project Maintenance***

Organization	Address	Activity	Frequency
Fish Identification/Autofish Operators	17330 SE Evelyn St Clackamas, OR 97015	The dual channel sorter has a weekly scheduled maintenance plan that will be performed by the operator of the trailer. There is also preventive maintenance program during the off season.	Weekly and as needed.

## Project Match Funding

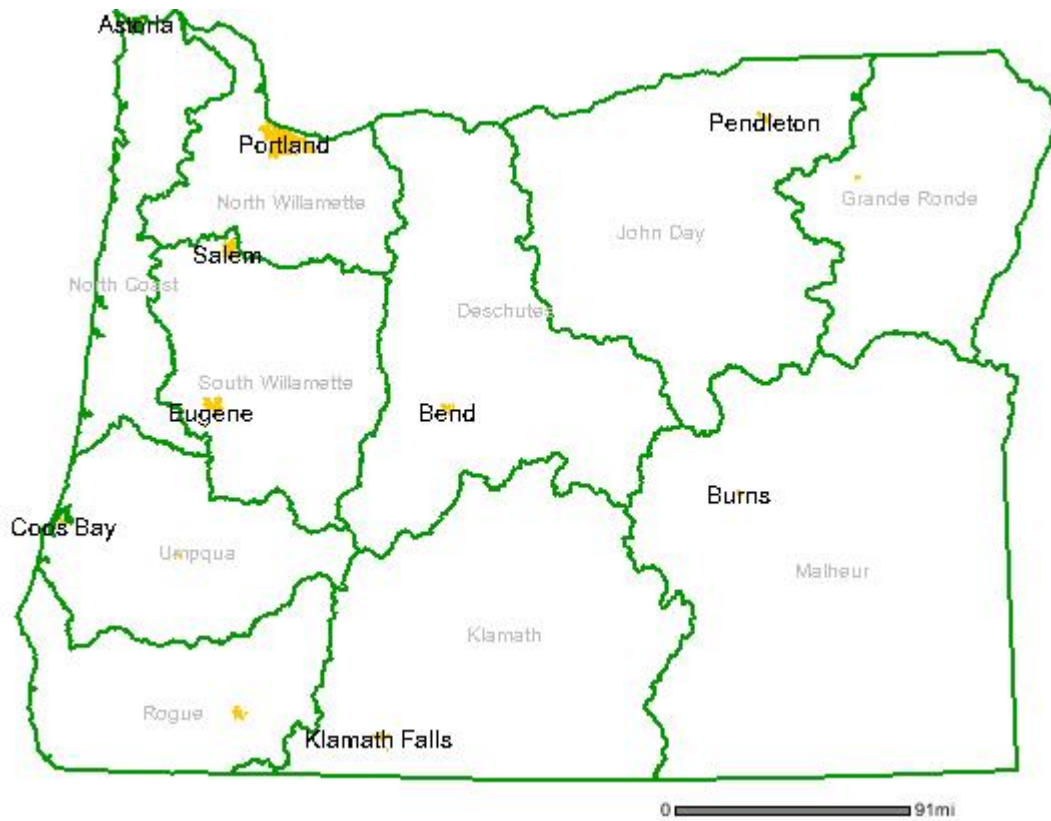
Funding Source	Cash	In-Kind	Other	Description	Total	Secured?	Conditions?	Comments
R&E Request	\$32,500.00	\$0.00	\$0.00	Money requested to help pay for Dual Fish Counting System.	\$32,500.00	No	No	
Fish ID	\$0.00	\$15,000.00	\$0.00	Money requested to help pay for Dual Fish Counting System.	\$15,000.00	No	No	
Fish ID	\$0.00	\$0.00	\$48,750.00	Northwest Marine Technologies Credit	\$48,750.00	Yes	No	The dual Marking System costs \$96,250, Northwest Marine Technologies has stated that parts from existing sorter can be used to build the new sorter. this brings the cost down by 50%.
				Total Match Funding:	\$96,250.00			

**Project Budget**

Item	Item Type	Units	Unit Cost	R&E Funds	Match Funds	Total
Dual Sorter Upgrade	Equipment	1	\$96,250.00	\$32,500.00	\$63,750.00	\$96,250.00
					Total Budget:	\$96,250.00

## Project Map

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## ***Additional Files***

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