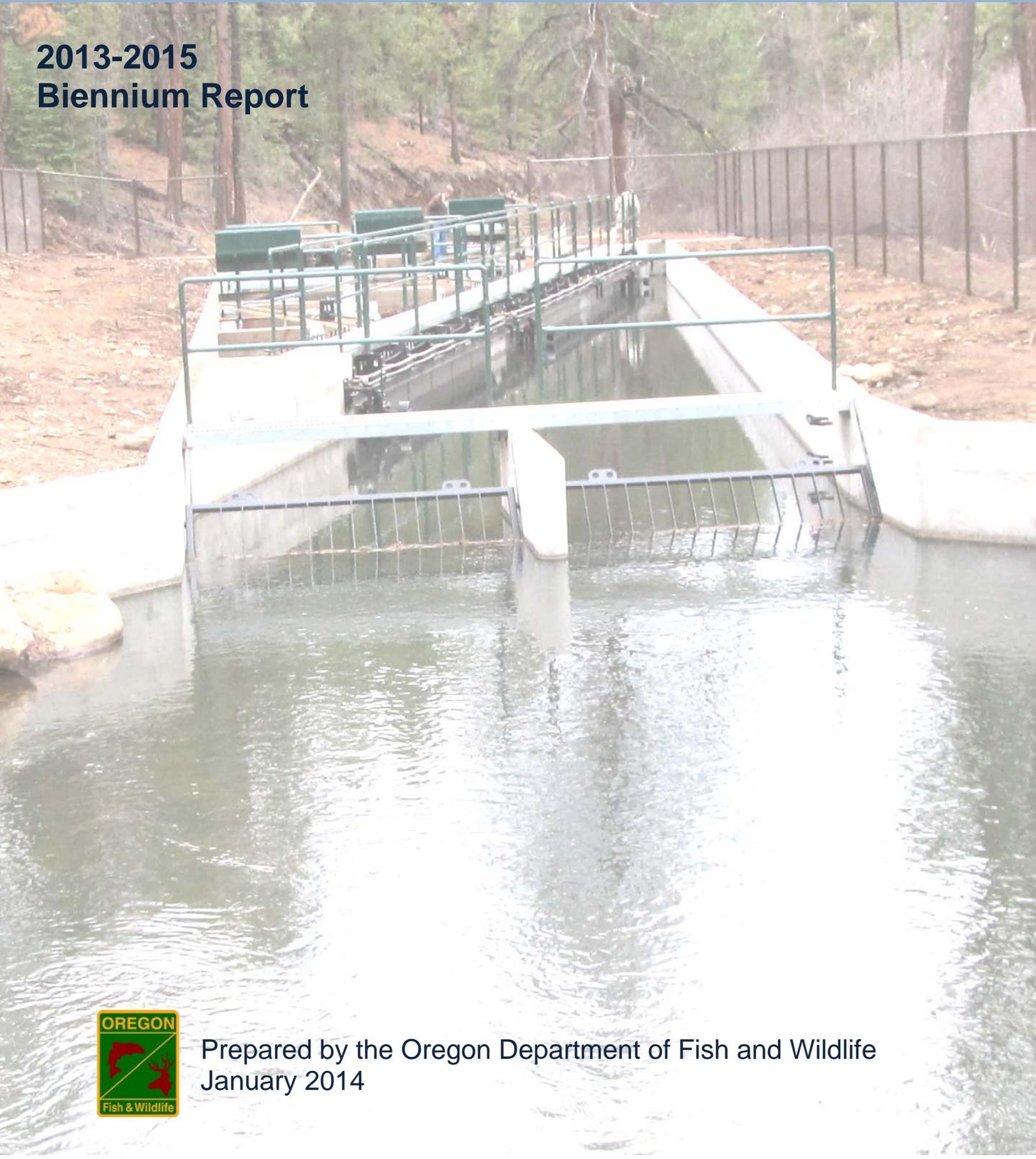


Oregon's Fish Screening Program

2013-2015
Biennium Report



Prepared by the Oregon Department of Fish and Wildlife
January 2014

Greetings!

Thank you for reading the Fish Screening Program's 2015 legislative report. Since 1991, the Program has provided cost share incentives and technical assistance to encourage water users to voluntarily install fish-friendly screens at their water diversions. Fish screens prevent fish from entering irrigation diversions, municipal systems, or industrial intakes.

The Program's cost share opportunities and tax credit are very successful. The cost share assists water users with the expense of installing a fish screen. Water users may also qualify for a tax credit of up to \$5,000. Since 2000, these incentives have resulted in the voluntary installation of over 1,260 fish-friendly screens throughout the state.

The cost share program has provided over \$3.6 million to complete 80 screening projects to date in the 2013-2015 biennium. While many of the projects were replaced under the program's major maintenance responsibility, the remaining 32 projects leveraged over \$475,000 in match. Projects are located throughout the state and benefit both small and large water users. Valuable partnerships have been forged with soil and water conservation districts, watershed councils, irrigation districts, municipalities, and individual water users who volunteer to cost share projects.

More than ninety-eight percent of young salmon and steelhead survive an encounter with a properly designed fish screen. Fish screens are a critical component of native fish restoration and help improve sport and commercial fisheries. Fish screens help achieve both sustainable agriculture and sustainable fisheries.

Thousands of water diversions remain unscreened in Oregon, placing fish at risk. While the Fish Screening Program has made great progress, there is still a lot of work to do. This report reflects the cooperative efforts of many partners to address the issue. Please join us in celebrating their accomplishments.

Sincerely,

A handwritten signature in blue ink that reads "Curt E Melcher".

Curt Melcher, Interim Director

Benefits & Accomplishments

Oregon's fish screening program is one of the top in the nation. Its directive is to share the cost of installing fish screens with water users. This popular and cost-effective program includes monetary, technical and design assistance, and a tax credit. The fish screening program was adopted in 1995 and is directed by ORS 496.141 to report to the Joint Committee on Ways and Means.

What is a Fish Screen:

Water from streams and rivers is redirected for irrigation, power, drinking water, and other uses. Diversions used to redirect water also pull fish into pumps, irrigation canals, and fields – reducing survival and preventing migration. Fish screens are fish-friendly devices placed at a diversion entrance. They allow water to pass through while preventing fish from entering.

Benefits

- Screens prevent fish from entering diversions.
- More than 98% of young salmon survive an encounter with a properly designed screen.
- Improves the protection, survival, and restoration of native fish.
- Juvenile and adult fish are allowed to continue their up and downstream migration.
- Achieves sustainable agriculture and fisheries.
- As fish populations increase, anglers are provided more fishing opportunities.

Program Success

So far this biennium, 80 fish screens have been installed protecting 359.17 cfs of water. An additional 25 projects are planned for installation by the end of June 2015. The cooperative water users installing these projects have contributed more than \$475,000 in matching funds.

Projects are located throughout the state benefiting both small and large water users. Because Oregon laws do not require the majority of diversions to be screened, most screens are installed voluntarily. Valuable partnerships have been forged with water users who volunteer to cost share projects.

Unscreened Diversion Inventory

ORS 498.306 directs ODFW to establish a list of priority fish screening and bypass projects. A new list was developed in 2013, and updated in late 2014, that will serve as an outreach tool to identify and implement fish screening projects at sites providing the most benefit to fishery resources.

From this list, the top 250 diversions will be provided with information regarding the fish screening cost share program. Inclusion on this list does not change the fish screening requirements of the water rights involved.

Incentives

Incentives in the form of cost share and a tax credit encourage water users to voluntarily screen their diversions. As a result, 1,260 fish screens have been installed throughout Oregon since 2000.

Cost Share Grants

Water users can receive financial help to install a fish screen by cost sharing their project with ODFW. Water users provide cash, materials, or in-kind services for their portion of the project.

Oregon State Tax Credit

Water users may be eligible for a tax credit of 50%, up to \$5,000, of the cost of installing a new screen. The screen does not need to be cost shared or installed by ODFW, any newly installed fish screen may be eligible. The water user is allowed to take the tax credit over a five-year period. Since 1995, \$713,214 in State tax credits have been granted.

Application Process

Water users apply for cost share funding to install a screen at their pump or gravity diversion. Once approved, the water user and ODFW enter into a grant agreement. Costs incurred before approval are not eligible for reimbursement.



Most screens are fabricated in the shop, and then installed onsite.

Installation, Review, and Inspection

Screen projects can be installed by ODFW or the water user.

- ODFW ensures that state and federal fish screening criteria are met by reviewing project designs.
- ODFW inspects and certifies the project once it has been installed.

Minor Maintenance

Maintenance of fish screens and passage structures is an important part of the Screens Program. While water users that enter the cost share program are responsible for minor maintenance, screens that are not maintained by the Program are often inadequately maintained – increasing major maintenance costs, reducing the effective lifespan, diminishing the State’s return on investment, and leaving fish vulnerable to being diverted.



Technicians remove debris blocking a screen.

Major Maintenance/Replacement

ODFW is required to provide major maintenance for screens it cost shares on diversions less than 30 cfs (ORS 498.306(6)). As new screens are installed, the financial investment and required maintenance responsibility also increases.

Funding for Maintenance

Federal funding for maintenance in the Columbia Basin has been provided by National Oceanic and Atmospheric Administration (NOAA) through the Mitchell Act. The amount provided has been on a declining trend and ODFW is not able to fully fund maintenance activities due to these reductions. ODFW cut two full time fish screen technician positions and several other positions have been left unfilled during this reporting period.

ODFW utilized license and general fund dollars for some maintenance outside of the Columbia Basin, but the need is greater than funds available.

Program Oversight

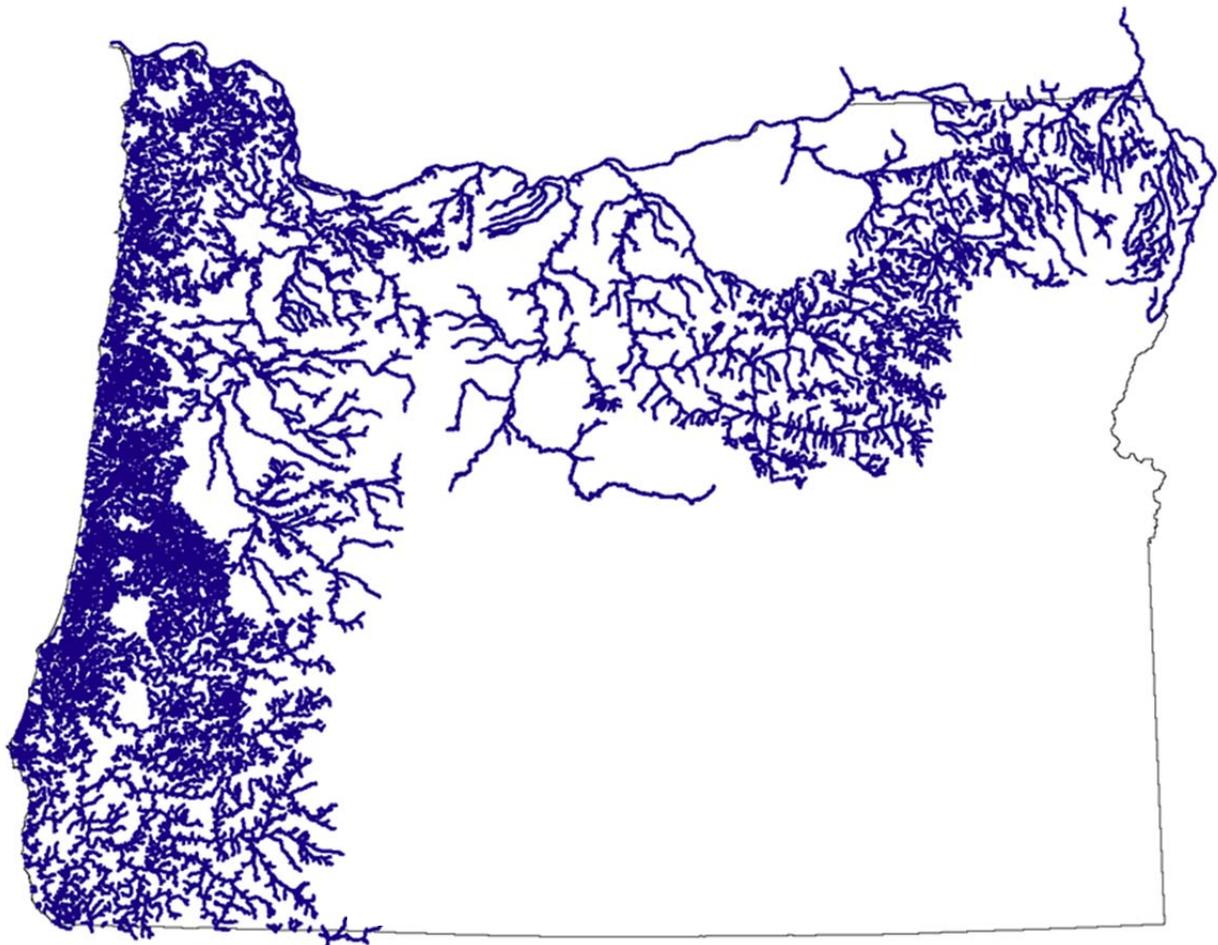
A seven-member citizen task force is appointed by the Oregon Fish and Wildlife Commission to advise ODFW regarding fish screening policy, funding, and technology issues. The Task Force members represent agriculture, fishing and fish conservation, and the public-at-large. Members can serve up to six years on the Task Force.

Fish Screening Task Force Members		
Task Force Member	Representing	Location
Mike Britton	Agriculture	Madras
Lynden Brown	Fishing and Fish Conservation	Lebanon
Douglas Markle	Fishing and Fish Conservation	Corvallis
Jeff Oveson	Fishing and Fish Conservation	La Grande
Les Perkins	Public-at-Large	Parkdale
Tony Stroda	Agriculture	Monroe
Vacant	Agriculture	

Budget Analysis

Budget information provided is for the Fish Screening and Passage Program. A fish passage component of the program reports activities to the Legislature separately.

- PCSRF funds can only be used in areas occupied by fish that migrate to the ocean. This is the Program's primary funding source for new construction and replacement screens. Other funds are needed to screen for resident fish.
- Federal funds for screens have decreased.
- Funds available for screen maintenance are very limited and have decreased recently.
- Costs have greatly risen, which reduces the amount of work that can be completed.



PCSRF funds are only available in those areas shown in blue above

Budget Analysis

The Program receives a variety of state and federal funding. Funding cycles vary and overlap resulting in a complex budget.

Program Funding Cycles & Amounts			
Biennium	2013-2015		
General Fund (GF)	\$1,736,066		
Pacific Coast Salmon Recovery Fund (PCSRF)	\$3,199,311		
Screens Surcharge	\$1,095,691		
Calendar Year	2013	2014	2015
Bonneville Power Administration (BPA)	\$1,123,320	\$1,294,320	\$1,123,320
Federal Fiscal Year	2013	2014	2015
Mitchell Act (MA)	\$1,241,809	\$1,204,808	unknown
Project Specific Funding	2013	2014	2015
North Fork Sprague Screen		\$446,224	

Federal Funding

Mitchell Act

MA is a major source of funding for screening in the Columbia River Basin. Since 1993, MA funding has dropped from nearly \$2.2 million annually to just \$1.2 million in 2014. Meanwhile, costs for personnel, materials, and transportation have increased substantially. Due to the reduction of MA funding, ODFW is not able to meet the maintenance needs at the existing fish screens.

Bonneville Power Administration

BPA funds are used for the installation of new screens and replacement of some fish screens in the Columbia River Basin. The screens being replaced are worn out, damaged or do not meet current fish protection needs.



This large pump screen is being repaired to help protect fish throughout the upcoming irrigation season.

State Funding

State funds fluctuate every biennium; the sport fishing license surcharge is dependent upon license sales, lottery funded dollars were eliminated, and general fund dollars provided are less than the lottery funds we received previously.

Pacific Coast Salmon Recovery Funds

The majority of the cost share program is funded by PCSRF. Funds are used toward engineering and construction of fish screens, limited program outreach, and some maintenance. These funds are limited to use in areas where fish migrate to the Ocean.

Sport Fishing License Surcharge

A 75-cent surcharge on Oregon sport fishing licenses is dedicated to the Fish Screening Program. These funds are used for fish screen maintenance, inventory work, the Fish Screening Task Force, and program support.

General Fund

General funds provide for some cost share projects, maintenance, and program support.



Concrete was poured over two days at this very large structure on a diversion on the South Fork of the Sprague River in southern Oregon.



The foundation took more than 150 cubic yards of concrete.

Research and Development

ODFW continues to develop innovative fish screen technology, improving effectiveness and efficiency.

Cleaning System Power Sources

Recent issues with hydraulic systems and water wheels have resulted in some existing power systems being replaced with alternatives.

As solar component costs decrease, it has become cost effective to replace some paddlewheels that did not work well during low water flows with solar powered motors. The footprint is smaller as solar arrays have become more efficient at transferring energy.



Cone Screens

The program has worked with a supplier to install several cone screens recently. The screens work well in areas where water levels fluctuate significantly during the irrigation season. Given most of the screen area is low on the profile, these work well in low flow conditions. Rotating brushes on the screen prevent buildup allowing this screen to be used even in silty conditions.



Screens Installed July 1, 2013 to December 31, 2014

Fish screens come in a wide range of types and sizes including pump, rotary drum, traveling belt, and panel screens. So far this biennium, 80 fish screens have been installed protecting 359.17 cfs of water. An additional 25 projects are planned for installation by the end of June 2015.

The amount of water screened and number of projects installed are used to track Program success.

The number of screens installed and the amount of water flow being screened are the two primary measurements used to track Program success. Flow rates are measured in cubic feet per second (CFS). 1 cfs = 448.83 gallons per minute.

The projects featured here represent the challenges posed by various locations and the diverse nature of fish screen designs.

Screens Installed by Senate District		
District	# Installed	Flow Rate in CFS
1	10	4.75
2	5	7.04
3	1	2.03
6	1	0.56
8	1	1.44
9	2	3.88
12	6	8.89
16	1	0.29
26	2	25.11
27	1	0.40
28	13	101.98
29	11	26.85
30	26	175.96
Total	80	359.17

Screens Installed by House District		
District	# Installed	Flow Rate in CFS
1	6	2.84
2	4	1.91
3	1	4.77
4	4	2.27
5	2	6.03
11	1	0.56
15	1	1.44
17	1	3.43
18	1	0.45
23	4	5.34
24	2	3.55
32	16	0.29
52	2	25.11
54	1	0.40
55	12	97.98
57	10	26.35
58	1	0.50
59	23	80.26
60	3	95.70
Total	80	359.17

Screens Installed July 1, 2013 to December 31, 2014

County	House District	Senate District	Project Title	Stream	Flow Rate	Project #
Clackamas	52	26	Sandy Hatchery	Cedar Creek	25.00	03-0002
Clackamas	18	9	Farner Pump	Molalla River	0.45	02-0408
Coos	1	1	King Ranch #5 Pump	North Fork Coquille River	0.41	17-0103
Coos	1	1	Williams Pump	East Fork Coquille River	0.20	17-0096
Coos	1	1	Mast Farm and Timber Pump	North Fork Coquille River	0.95	17-0104
Coos	1	1	Leslie #1 Pump	Middle Creek	0.27	17-0100
Coos	1	1	Rapp Pump	East Fork Coquille River	0.32	17-0102
Crook	55	28	Bear Creek-Langer #1	Bear Creek	1.20	06-0324
Crook	55	28	Cougar Creek- Langer	Cougar Creek	0.80	06-0467
Crook	55	28	Flegel Pump	Ochoco Creek	0.80	05-0114
Crook	55	28	Estridge Pump	Crooked River	0.33	05-0115
Curry	1	1	Brown Livestock #3 Pump	Floras Creek	0.69	17-0093
Deschutes	54	27	Riverbend Park Pump	Deschutes River	0.40	05-0112
Douglas	2	1	Sether #2 Pump	Cow Creek	0.36	16-0255
Douglas	2	1	Sether #3 Pump	Cow Creek	0.31	16-0256
Gilliam	59	30	Harris	Willow Creek	2.00	07-0007
Gilliam	59	30	Harris #2	Willow Creek	0.75	07-0127
Grant	59	30	Letosky	South Fork John Day River	1.00	06-0516
Grant	59	30	Loop Ranch Pump	John Day River	1.53	06-0524
Grant	59	30	Moore Pump	John Day River	1.50	06-0525
Grant	59	30	Finley	Birch Creek	2.84	06-0480
Grant	59	30	Kilpatrick #2	Fall Creek	2.00	06-0486
Grant	59	30	Finley #2	Birch Creek	2.84	06-0497
Grant	59	30	Driscoll Pump	John Day River	1.00	06-0526
Grant	59	30	Mullin Pump, North	John Day River	1.56	06-0445
Grant	59	30	Panama Ditch	Panama Ditch	25.03	06-0058
Grant	60	30	Rude	John Day River	2.70	06-0498
Grant	59	30	Kimball Pump	John Day River	2.00	06-0241
Grant	59	30	McKinley Pump	John Day River	0.65	06-0527
Grant	60	30	Upper Jeff Davis Creek	Jeff Davis Creek	1.00	06-0514
Grant	59	30	Cavender Pump	North Fork John Day River	1.22	06-0105
Grant	59	30	Clark #2	Ingle Creek	1.60	06-0492
Grant	59	30	Clark	Ingle Creek	1.60	06-0517
Harney	60	30	Drewsey Reclamation	Malheur River	92.00	10-0007
Hood River	52	26	Phillips Pump	Neal Creek	0.11	04-0027
Jackson	4	2	Weidum Pump	Bear Creek	0.97	15-0511

Screens Installed July 1, 2013 to December 31, 2014

County	House District	Senate District	Project Title	Stream	Flow Rate	Project #
Jackson	55	28	Upper Sturgis Ditch	Elk Creek	1.70	15-0091
Jackson	4	2	Seven Oaks #1 Pump	Griffin Creek	0.50	15-0005
Jackson	2	1	Anderson (Gordon) Pump	Pleasant Creek	1.00	15-0523
Jackson	4	2	Cote Pump	Rogue River	0.40	15-0519
Jackson	5	3	Hogan Ditch	Thompson Creek	2.03	15-0162
Jackson	55	28	Albert Ditch	North Fork Big Butte Creek	2.50	15-0230
Jackson	55	28	Straw Ditch	North Fork Little Butte Creek	0.75	15-0211
Jackson	55	28	Lower Nygren Ditch	North Fork Little Butte Creek	0.90	15-0213
Jackson	2	1	Willis Pump	Pleasant Creek	0.24	15-0517
Josephine	4	2	Nance Pump	Applegate River	0.40	15-0506
Josephine	3	2	Holland	Sucker Creek	4.77	15-0200
Klamath	55	28	NF Sprague Screen	North Fork Sprague River	77.00	14-0076
Lake	55	28	Drews Valley Ranch #9	Drews Creek	8.00	13-0048
Lake	55	28	Pitcher Ranch #1	Buck Creek	2.00	13-0032
Lake	55	28	Pitcher Ranch #3	Buck Creek	2.00	13-0033
Lake	5	28	Pitcher Ranch #2	Buck Creek	4.00	13-0079
Lane	11	6	Lindo Rio Pump	McKenzie River Sidechannel	0.56	02-0402
Linn	17	9	Kingston Irrigation Pump	Unnamed Tributary to North Santiam River	3.43	02-0343
Linn	23	12	Thompson Mills Pump	Calapooia River	1.78	02-0373
Linn	15	8	Gray Farms Pump #2	Willamette River	1.44	02-0401
Marion	23	12	Baker Pump	Sidney Ditch	1.00	02-0390
Marion	23	12	Blue Heron Pump	Willamette	1.56	02-0407
Marion	23	12	Tilley Pump	North Santiam River	1.00	02-0405
Morrow	57	29	Anson Wright Park Outlet	Rock Creek	1.65	06-0502
Sherman	59	30	JDR Ranch Pump #1	John Day River	0.90	06-0509
Sherman	59	30	JDR Ranch Pump #2	John Day River	0.90	06-0510
Umatilla	57	29	Zell Ditch	Walla Walla River	8.00	07-0123
Umatilla	57	29	Trudy Pump	East Birch Creek	0.30	07-0071
Umatilla	58	29	Trudy #2 pump	East Birch Creek	0.50	07-0072
Umatilla	57	29	Trudy #3 Pump	East Birch Creek	0.58	07-0126
Union	57	29	Rudd Pump	Grande Ronde River	3.00	08-0045
Union	57	29	Delint #1a Pump	Grande Ronde River	4.97	08-0075
Union	57	29	Voelz Pump	Grand Ronde	0.60	08-0076
Union	57	29	West Pump	Grande Ronde River	1.95	08-0011

Screens Installed July 1, 2013 to December 31, 2014

County	House District	Senate District	Project Title	Stream	Flow Rate	Project #
Union	57	29	Delint #1	State Ditch	1.70	08-0047
Union	57	29	CC-44	Catherine Creek	3.60	08-0074
Wasco	59	30	River Valley Farm and Ranch, Pump	John Day River	1.67	06-0519
Wasco	59	30	River Valley Farm and Ranch, Pump #2	John Day River	1.67	06-0520
Washington	32	16	Kruger Pump	East Fork Dairy Creek	0.29	02-0417
Wheeler	59	30	Norton	Bear Creek	13.00	06-0072
Wheeler	59	30	Quant	Mountain Creek	3.00	06-0295
Wheeler	59	30	Antone Ranch	Rock Creek	10.00	06-0503
Yamhill	24	12	Upshaw Pump	South Yamhill River	1.33	02-0392
Yamhill	24	12	Fisher Pump	South Yamhill River	2.22	02-0404

80 Total Projects

Total CFS 359.17

Project Summary

Project Number: S-02-0343 **Project Name:** Kingston Irrigation

Project Type: Two 3.34 cfs Sure-Flo pump screens (6.68 cfs total)

Completion Date: July 2013 **County:** Linn

Basin: Willamette **Stream:** Unnamed Tributary to Santiam River

Water Use: Irrigation

Project Description:

ODFW installed fish screens at this site in 1998. The screens needed to be replaced and they no longer adequately protected fish.

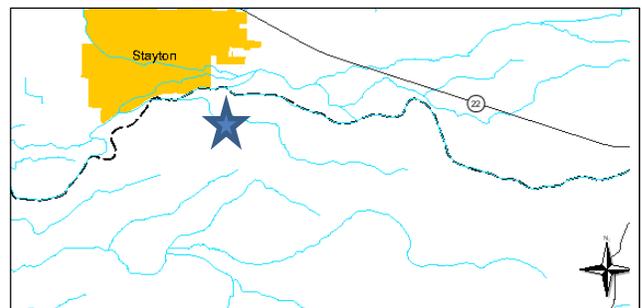
ODFW is responsible for the cost of major maintenance on screens installed through the cost share program. These replacement screens were installed at no cost to the water user.



Two screens allow the water user to continue to take screened water even when waters are low late in the irrigation season.

Fish Species Affected:

ESA Threatened summer steelhead, endangered spring Chinook, coastal cutthroat, and other native non-game fish



Project Location:

The project is located near Stayton in Linn County.

Cost Breakdown:

ODFW (PCSRF):	\$ 38,121
Total:	\$ 38,121

Project Summary

Project Number: S-02-0402 **Project Name:** Lindo Rio Pump Screen

Project Type: .56 cfs Sure-Flo pump screen

Completion Date: November 2013

County: Lane

Basin: Willamette

Stream: Side Channel of McKenzie River

Water Use: Irrigation



The pump screen and irrigation pipe are ready to install for irrigation season.

Fish Species Affected:

ESA Threatened Chinook and bull trout, rainbow trout, steelhead, coastal cutthroat trout, Pacific and western brook lamprey, and other native non-game fish

Cost Breakdown:

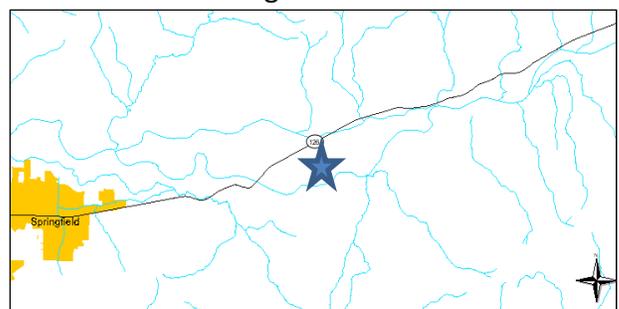
ODFW (PCSRF):	\$ 280
Applicant:	\$ 187
Total:	\$ 467

Project Description:

A new screen was installed on a previously unscreened diversion used for grass hay and pasture irrigation.

ODFW's South Willamette Watershed District, Oregon Water Resources Department, Oregon Division of State Lands staff, and the landowners worked together to find a solution to meet the irrigation needs of the landowner with minimal impacts to the McKenzie River and its fish populations.

The Dalles Screen Shop staff purchased the screen and associated components and delivered them to the applicant who installed them on the existing intake line.



Project Location:

The site is near Springfield in Lane County.

Project Summary

Project Number: S-06-0058 **Project Name:** Panama Ditch Replacement
Project Type: 25 cfs solar powered panel and belt screens
Completion Date: December 2013 **County:** Grant
Basin: John Day **Stream:** John Day River
Water Use: Irrigation

Project Description:

The diversion is one of the largest in the John Day Basin. This was phase two of a three phase project to protect fish by constructing a new diversion structure, installing a new screen, and piping the ditch.

The new screen replaced an aging and failing screen that was undersized for the water needed.

This design was selected in part due to the large amount of debris that this screen encounters and the future plans to pipe the ditch.

The John Day Screen Shop staff fabricated and installed the civil works and screen components.

Fish Species Affected:

ESA threatened steelhead, Chinook ,bull and redband trout, westslope cutthroat, and other native non-game fish

Cost Breakdown:

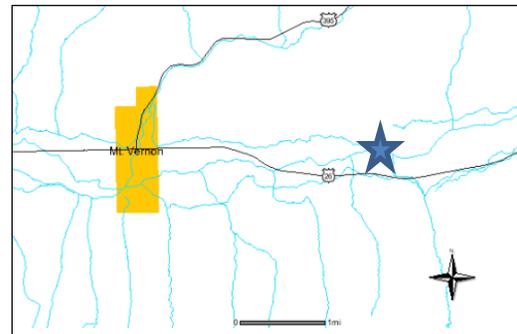
ODFW (BPA):	\$ 245,097
ODFW (PCSRF):	\$ 3,535
ODFW (License Surcharge):	\$ 938
Total:	\$ 249,570



The old screen was undersized and did not adequately protect fish.



The screens are located a short distance down the ditch, so they include a bypass pipe that returns fish to the river.



Project Location:

The site is near Mt. Vernon in Grant County.

Project Summary

Project Number: S-06-0072

Project Name: Norton

Project Type: 13 cfs solar powered belt screens

Completion Date: July 2013

County: Wheeler

Basin: John Day

Stream: Bear Creek

Water Use: Irrigation



The district biologist recommended screening this intake as it is located in a high priority area for threatened steelhead.

Fish Species Affected:

ESA Threatened steelhead, Chinook, redband trout, and other native non-game fish

Cost Breakdown:

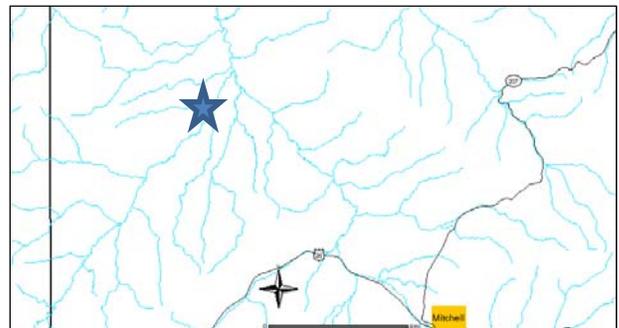
ODFW (PCSRF):	\$ 31,342
ODFW (Lottery):	\$ 1,051
ODFW (BPA):	\$ 22,416
Total:	\$ 54,809

Project Description:

This replacement screen was installed on a diversion used for hay and alfalfa irrigation.

The existing screen was installed in 2003 and did not adequately protect fish. The screen required significant maintenance due to performance issues, but parts were not available.

John Day Screen Shop staff installed the screen and associated components in the existing civil works.



Project Location:

The site is near Mitchell in Wheeler County.

Project Summary

Project Number: S-06-0295

Project Name: Quant

Project Type: 3 cfs paddle wheel powered rotary drum screen

Completion Date: March 2014

County: Wheeler

Basin: John Day

Stream: Mountain Creek

Water Use: Irrigation

Project Description:

This replacement screen was installed on a diversion used for hay and alfalfa irrigation. The existing screen did not adequately protect fish.

The new screen is protected by a head gate which allows the water user to control flow into the ditch and prevent water from flowing over the top of the screen.



The old screen was undersized, so during high flows water would flow over the top of the screen.



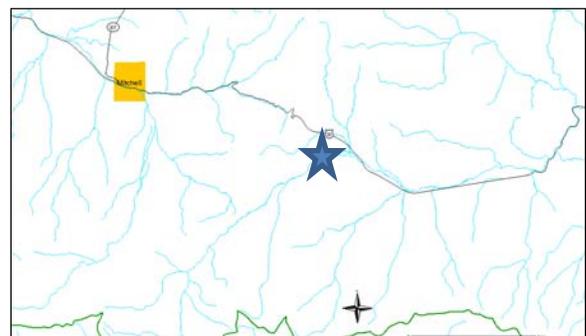
ODFW designed and installed this replacement rotary drum screen to protect threatened summer steelhead and other resident native fish.

Fish Species Affected:

Redband trout, ESA Threatened summer steelhead, and other native non-game fish

Cost Breakdown:

ODFW (PCSRF):	\$ 16,785
ODFW (Lottery):	\$ 9,743
ODFW (BPA):	\$ 17,014
Total:	\$ 43,542



Project Location:

This site is located near Mitchell in Wheeler County.

Project Summary

Project Number: S-13-0032 & S-13-0033 **Project Name:** Pitcher Ranch Screens #1 & 2
Project Type: 2 cfs rotary drum screen with paddle wheel & 2 cfs solar powered rotary drum screen
Completion Date: December 2014 **County:** Lake
Basin: Goose & Summer Lakes **Stream:** Buck Creek
Water Use: Irrigation

Project Description:

Two screens were replaced that had been installed in 1998 and did not adequately protect fish.

The replacement of these two screens on the Pitcher Ranch was part of a much larger restoration project. The overall project included replacement of three fish screens and fish passage work at several irrigation diversions.

While ODFW was responsible for the replacement of these screens, funds were not available to assist with this replacement as it is in an area where fish do not migrate to the ocean. The projects partners provided the majority of the funding, prepared the designs, and constructed the civil works. ODFW's Central Point staff fabricated the screens and installed them.

ODFW partnered with Ducks Unlimited, Oregon Watershed Enhancement Board, Pitcher Ranch, and the Silver Lake Community Watershed Council to complete these projects.

Fish Species Affected:

State sensitive redband trout, brook trout, and other native non-game fish

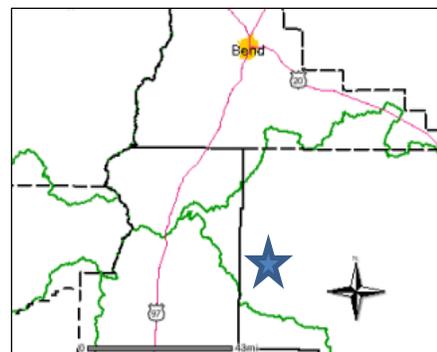
Cost Breakdown:

ODFW (GF):	\$ 26,931
ODFW (Lottery):	\$ 67
ODFW (License Funds):	\$ 1,825
Total*:	\$ 28,823

* Actual costs not available at the time of report publication. Estimated construction costs shown.



When appropriate for the site, paddle wheels can be low cost and effective at powering screens.



Project Location:

This site is near Silver Lake in Lake County, Oregon.

Contact Information

Salem Headquarters

4034 Fairview Industrial Drive SE
Salem, OR 97302

Program Manager, Alan Ritchey

503-947-6229

Statewide Screening Coordinator, Pete Baki

503-947-6217

Program Assistant, Lisa Kingsley

503-947-6224

Fiscal Analyst, Ron Hendrickson

503-947-6251

Central Point Screen Shop

1495 E Gregory Road
Central Point, OR 97502
541-826-8774

John Day Screen Shop

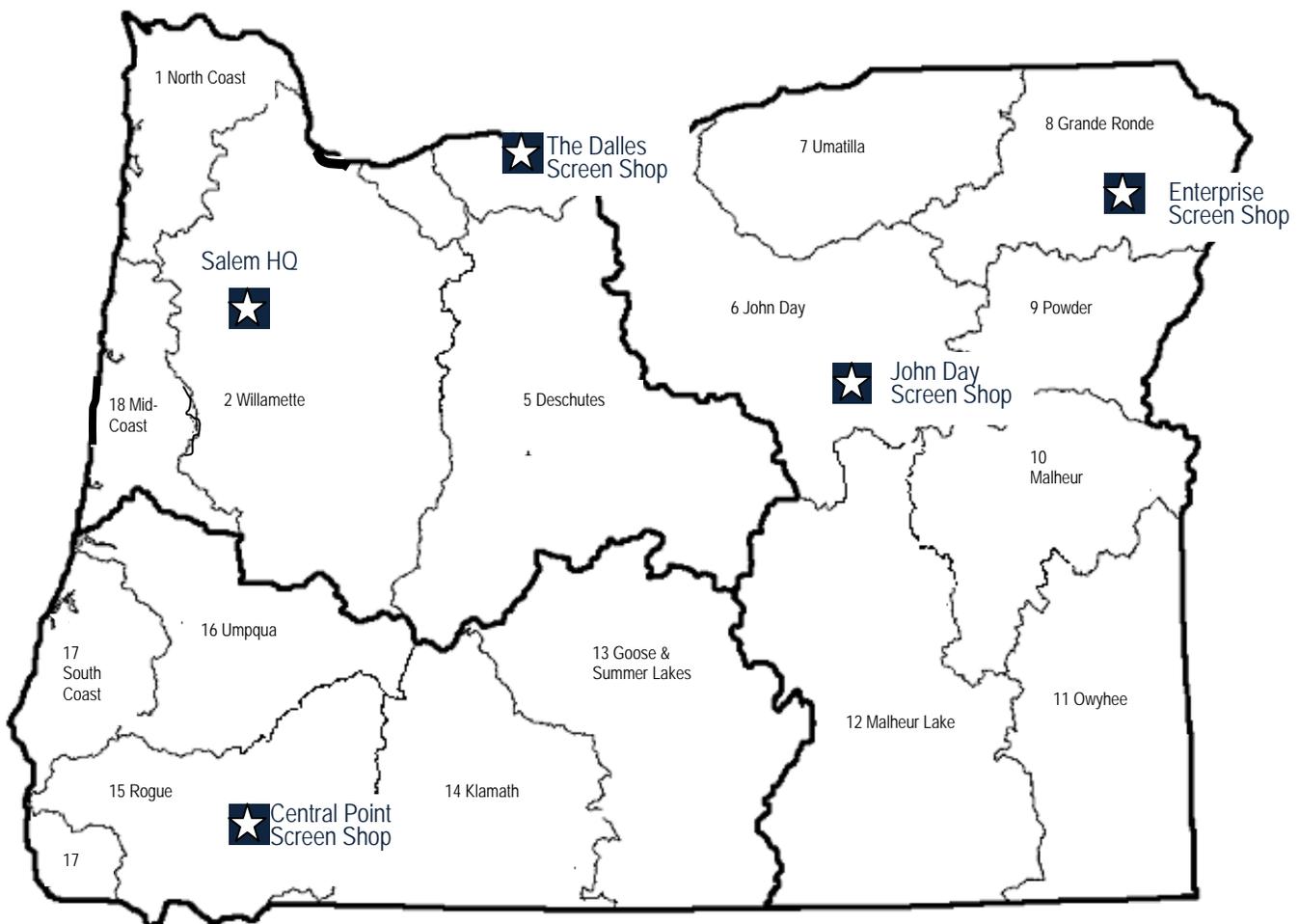
357 Patterson Bridge Road
John Day, OR 97845
541-575-0561

The Dalles Screen Shop

3561 Klindt Drive
The Dalles, OR 97058
541-296-8026

Enterprise Screen Shop

65495 Alder Slope Rd
Enterprise, OR 97828
541-426-0311



Prepared by:
Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive, SE
Salem, OR 97302