

U.S. Fish & Wildlife Service



Fisheries Restoration and Irrigation Mitigation Program

FY 2002-2004



This program fosters cooperative efforts that help fish, farms and people. The on-the-ground accomplishments are impressive, as are the many examples of citizen-centered stewardship.

Governors Opinions

“The FRIMA program serves as an excellent example of government and private land owners working together to promote conservation. The screening of irrigation diversions plays a key role in Idaho’s efforts to restore salmon populations while protecting rural economies.”

Dirk Kempthorne, Governor, State of Idaho

“FRIMA is about keeping Western values intact...In Montana we take great pride in the health of our native fisheries and the rivers and streams they inhabit. Through assistance to farmers and ranchers, Indian Tribes, and municipalities, FRIMA offers us a way to help our native fish survive while keeping people working on the land.”

Brian Schweitzer, Governor, State of Montana

“Irrigated agriculture is important to the economy of our region. Fish screens at water diversions are key to mitigating these diversions as a source of fish mortality in order to increase the numbers of salmon and steelhead spawning in Oregon streams. FRIMA funds have helped accomplish this.”

Ted Kulongoski, Governor, State of Oregon

“We are developing plans for all listed salmon and steelhead in Washington. Improving fish passage and survival through the use of fish screens in agricultural areas will be vital to successful implementation of these plans. We applaud and endorse programs such as FRIMA which promote successful partnerships...”

Christine Gregoire, Governor, State of Washington



Table of Contents

| | |
|---|----|
| Acknowledgements..... | 1 |
| FRIMA Program Design..... | 3 |
| Executive Summary..... | 5 |
| FRIMA Program..... | 7 |
| Background | |
| General Overview | |
| Funding History | |
| Program Accomplishments | |
| Project Accomplishments | |
| Fish Passage Accomplishments..... | 11 |
| Idaho - Overview..... | 13 |
| FRIMA Projects..... | 15 |
| Project Example..... | 16 |
| Montana - Overview..... | 23 |
| FRIMA Projects..... | 25 |
| Project Example..... | 26 |
| Oregon - Overview..... | 33 |
| FRIMA Projects..... | 35 |
| Project Example..... | 36 |
| Washington - Overview..... | 41 |
| FRIMA Projects..... | 43 |
| Project Example..... | 44 |
| Appendix A – FRIMA Fiscal Charts..... | 51 |
| Appendix B – FRIMA Partners and Supporters..... | 55 |
| Appendix C – Glossary of Terms..... | 57 |
| Appendix D – FRIMA Legislation..... | 59 |
| Appendix E – Acronyms and Abbreviations..... | 61 |



Acknowledgments

The program, authorized by P.L. 106-502, the Fisheries Restoration and Irrigation Mitigation Act of 2000 (Act), is accomplished through a voluntary partnership of state, tribal, federal, and local governments in Idaho, Montana, Oregon, and Washington.

These efforts are consistent with the purposes and intent of Congress as articulated in the Act, and are in keeping with the Department of the Interior's *Strategic Plan* and *Plan for Citizen-Centered Governance*, and the President's *Management Agenda* and *Executive Order on Facilitation of Cooperative Conservation*.

Of particular note is that the Act encourages an agriculture-fisheries partnership approach. That approach accommodates a very basic point. Sustainable fisheries and sustainable agriculture are not separable parts.

Sincere appreciation is extended to all parties involved for their insight, dedication, and support in designing and carrying out this partnership program, which has been both popular and successful.

Planning and cooperation are key.



Oregon Department of Agriculture Photo



BLM, Oregon

Salmon and trout are strong, but sometimes need help.



Sustaining fish and agriculture requires consultation, cooperation and communication by many partners.



FRIMA Program Design

Challenge



Increases in regional, national, and world populations create intense demands on agriculture, water, and fish in the Pacific Northwest.

Response



Food production is aided by diverting water for irrigation.



Fish are aided by irrigation diversions that are fish friendly.



Results



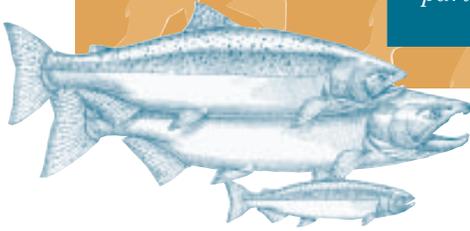
Water diversions assist sustainable agriculture.



Bull trout, Rebekah Dodson, CTWSRO Photo

Fish friendly water diversions assist sustainable agriculture and sustainable fisheries.

Because sustainable fisheries and sustainable agriculture are not separable parts it is imperative not only the they succeed, but that they succeed together.



Executive Summary

The Fisheries Restoration and Irrigation Mitigation Act of 2000 (Public Law 106–502) (FRIMA) created a voluntary fish passage partnership program administered by the Department of the Interior. The geographic scope of the FRIMA program is the Pacific drainage area of Oregon, Washington, Idaho, and western Montana.

For decades, state, tribal, and federal fishery agencies in the Pacific Northwest have identified the screening of irrigation and other water diversions, and improved fish passage, as being of critical importance in protecting, recovering, and sustaining anadromous and resident fish populations, and avoiding endangered species listings.

This awareness is widespread, as is the awareness that assuring productive interfaces between fish and agriculture is critical not just for healthy fish populations, but for healthy agriculture as well.

Goals established by Congress for FRIMA are to decrease fish mortality associated with the withdrawal of water for irrigation and other purposes without impairing the continued withdrawal of water for those purposes, and to decrease the incidence of juvenile and adult fish entering water supply systems.



Juvenile Salmon, BPA Photo

Accomplishments

While the Program has been underway for only three years, the \$8.9 million appropriated produced substantial results:

- When currently funded FRIMA construction projects are completed, 656 river miles of important stream habitat will be protected, enhanced, or made accessible;

- Inventories are underway in each of the four states, and hundreds of screens, features, barriers, and diversions have been evaluated;
- and Key data bases needed for effective planning, decision-making, and reporting are being created.

Local Support

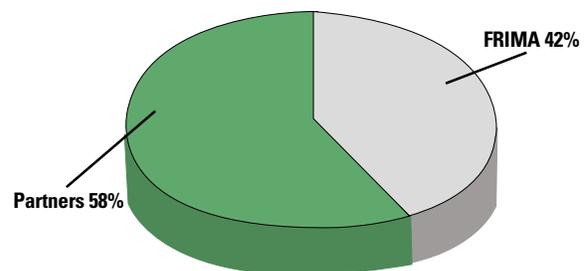
This program is highly popular and cost-effective, produces substantive results, and receives compliments and support from a wide range of constituents, including community leaders and environmental organizations, as well as agriculture.

Collectively, the FRIMA partners are carrying out fish passage projects totaling \$19.7 million dollars. The cost-share contributions to projects were \$8.3 million by FRIMA and \$11.4 million by local partners.

FRIMA legislation calls for a local partner cost-share of at least 35%. The local partner share for FY 2002 through 2004 was 58%.

Comparison of FRIMA v. Partner Cost Share Funding

FY 2002-2004 (Total = \$19.7 million)



Farmers...



Non-Farmers...



...and Fish, all benefit

Photo: Agricultural Research Service



FRIMA – A Partnership Program

Introduction

On November 13, 2000, congress enacted Public Law 106-502, the Fisheries Restoration and Irrigation Mitigation Act (FRIMA/Act/Program). That Act created a fish restoration and passage program within the Department of the Interior. Funding for the FRIMA Program began in Fiscal Year (FY) 2002.

Background

For decades, state, tribal, and federal fishery agencies in the Pacific Northwest have identified the screening of irrigation and other water diversions and improved fish passage as effective and important means to protect, recover, and restore anadromous and resident fish populations. Implementing fish passage programs requires interfaces between agriculture and fishery management interests.



Irrigated farming underlies the tax base in many rural communities in the west.

The FRIMA program focuses on screening of agricultural water diversions where both fish and irrigated agriculture are highly important economic and social resources.

Agricultural leaders in the irrigation districts of the Pacific Northwest recognized that poorly designed, or unscreened, water diversions were an important factor in the mortality of fish. Equally importantly, it was their view that fisheries issues related to agriculture needed to be addressed in a positive and cooperative fashion, one that could be supported by a wide range of interests. They proposed to Congress the best way to achieve these objectives was through a voluntary, cost-sharing, partnership program. The



A well designed fish screen on a water diversion canal: Nearly 80% of water diversions in the Pacific Northwest are unscreened and can pose a major risk to fish.

Fisheries Restoration and Irrigation Mitigation Act of 2000 was the result.

FRIMA authorizes the Secretary of the Interior (Secretary) to establish a program to plan, design, and construct fish screens, fish passage devices, and related features, and to conduct inventories to provide information needed for planning and decision-making. The program is carried out by the U.S. Fish and Wildlife Service (FWS) on behalf of the Secretary.

FRIMA's geographic scope is the Pacific drainage area of Oregon, Washington, Idaho, and western Montana.

General Overview

The goals established by Congress for the FRIMA program are:

- 1) to decrease fish mortality associated with the withdrawal of water for irrigation and other purposes without impairing the continued withdrawal of water for those purposes;
- 2) to decrease the incidence of juvenile and adult fish entering water supply systems.



A fish out of place serves no one.

The states of Idaho, Montana, Oregon, and Washington and tribal and local governments have worked closely with FWS to assure proposed projects are both scrutinized and prioritized before a funding commitment is made.

This program is implemented through a voluntary, cost-sharing, cooperative partnership among local, state, tribal, and federal governments. Although burdened by the lack of funding in many instances, local and state governments have shown a strong commitment to the program, including investment of their scarce staff time and dollars to assure projects are well thought through and properly implemented. Collaboration on program direction is aided by an advisory committee made up of state, tribal, and federal representatives (FRIMA Steering Committee).

Projects underway involve active participation and support from more than 130 partners who make up the wide array of local government and community leaders supporting this program. That array includes conservation districts, counties, cities and towns, irrigation districts, Native American tribes, resource conservation and development councils, and environmental organizations. Further, these partnerships serve as models of active communication, consultation and cooperation among

the numerous governmental and nongovernmental entities which are involved or affected. (See the FRIMA Partners section of this report for examples.)

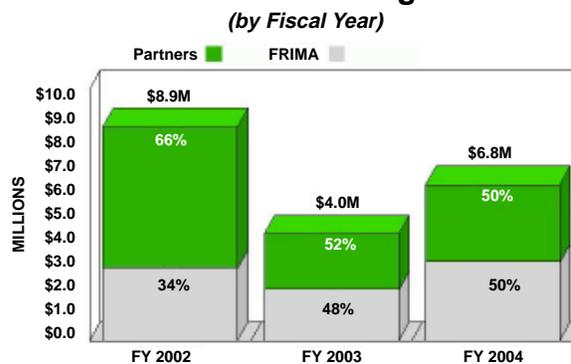
Funding History

The FRIMA legislation requires the project dollars be divided equally among the four states. Congress authorized up to \$25 million per year for the FRIMA program, or \$6.25 million per State per year. Appropriations have averaged \$3 million per year, or \$0.75 million per State per year.

The appropriations for the FRIMA funding for FY 2002, 2003, and 2004 were \$4 million, \$2 million, and \$3 million, respectively, for a three year total of about \$9 million. Of that amount, approximately \$675 thousand went to administrative and support costs. The remaining \$8.3 million was available to fund projects.

Collectively, because of strong financial cost-sharing by local entities, the FRIMA partners are carrying out fish passage projects totaling \$19.7 million, more than double the FRIMA appropriation. Stated another way, local partners incur more than half of the costs of projects. Of the total, 42% are FRIMA federal dollars and 58% are local partner dollars.

Comparison of FRIMA v. Partners Cost Share Funding

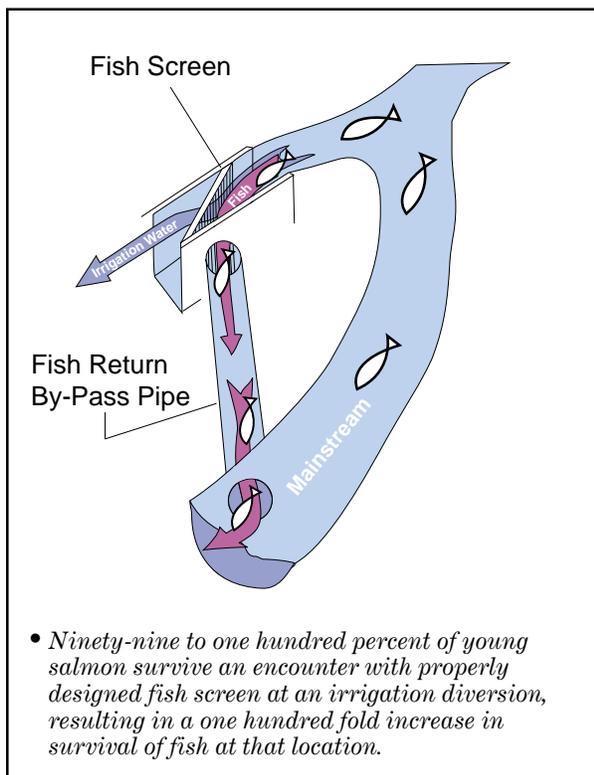


Program Accomplishments

The cooperative and collaborative team effort among the partners, including sharing of existing staff, funds, and other resources, makes the program efficient. Completed projects produce immediate, substantive benefits to both fish and landowners, hence it also is effective. Further, the program accomplishes important social and economic goals since it makes contributions to both sustainable fisheries and sustainable agriculture.

Installing FRIMA projects benefits fish by improving the survival of native species. These benefits are accomplished through the installation of fish screens, fish passage devices, and other features related to water diversion structures. Those devices, in turn, permit fish to travel to and from needed spawning, feeding, and rearing areas.

It is widely accepted that correcting fish barrier, diversion, and screen problems is a very cost-effective investment because doing so produces benefits immediately upon installation of the project. For example, fish survival is immediately improved because they are instantly prevented from straying into irrigation canals and ditches.



FRIMA provides benefits by:

- Keeping fish out of places where they should not be (such as in a farmer's irrigation system);
- Providing safe upstream and downstream fish passage;
- Improving the protection, survival, and restoration of native fish species;
- Helping avoid new endangered species listings by protecting and enhancing fish populations not yet listed;
- Making progress toward delisting of species already listed;
- Utilizing a positive, win/win, approach to address issues; and
- Assisting in achieving both sustainable agriculture and sustainable fisheries.

Fishing helps create land and water stewardship in young and old alike.



Irrigated agriculture is important to the economy of the Pacific northwest and to the nation.

Project Accomplishments

FRIMA projects, for the most part, are construction projects. It is common for construction projects to take several years from start to finish. Reasons include a short construction season, landowner and water user coordination, the time it takes for the various fiscal and contractual transactions involved, and the need to develop site-specific construction designs, conduct site-specific environmental analyses, and secure environmental permits.

The following is a brief summary of the accomplishments made by the partners of the FRIMA program. More detailed accomplishment reports are contained in the *Accomplishments* section of this Report.

While the program has been underway for only three years, and appropriations have been well below the authorized amount, there have been substantial results produced. Those results can be summarized as follows:

- When fully implemented, the FRIMA projects currently funded will protect, enhance, or make accessible 656 river miles of important streams;
- Inventories are underway in each of the four states, and hundreds of screens, features, barriers, and diversions have been evaluated; and
- Key databases needed for effective planning, decision-making, and reporting are being created.

FRIMA project accomplishment summary by state:

Idaho - Completed 13 Of 24 projects.

- Protected, enhanced, or made accessible more than 206 miles of streams important to fish;
- Installed 7 fish screens (with 15 more in construction);
- Completed 3 fish passage and screening inventories (with 2 others currently being conducted); and
- Addressed 2 fish passage barriers.

Montana - Completed 18 of 26 projects.

- Protected, enhanced, or made accessible more than 204 miles of streams important to fish;
- Installed 15 fish screens (with 8 more under construction);
- Completed 3 fish passage and screening inventories; and
- Addressed 4 fish passage barriers.

Oregon - Completed 13 of 15 projects.

- Protected, enhanced, or made accessible more than 144 miles of streams important to fish;
- Installed 12 fish screens (with 12 more under construction); and
- Completed 2 fish passage and screening inventories (with others currently being conducted).

Washington - Completed 12 of 21 projects.

- Protected, enhanced, or made accessible more than 102 miles of streams important to fish;
- Installed 34 fish screens;
- Completed 4 fish passage and screening inventories; and
- Addressed 3 fish passage barriers.

People from all walks of life go fishing.



*Westslope trout,
Lolo NF Photo*

*Self-cleaning fish screen on the
Republican Diversion on the
Bitterroot River.*





Fish Passage Accomplishments



Summary of FRIMA Accomplishments FY 2002 - 2004 Appropriations

PROJECTS

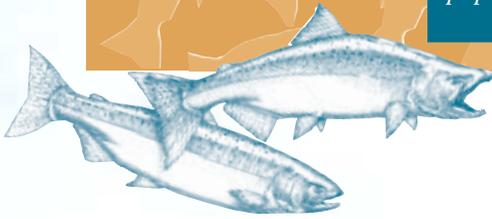
- Total Projects Funded - 87
- Total Projects Completed - 60
- Project Completion Rate - 71%

RESULTS OF COMPLETED PROJECTS

- Stream Miles Protected - 656
- Fish Barriers Fixed - 15
- Fish Screens Installed - 68
- Inventories Conducted - 9
- Data Bases Developed - 1
- Pre-Design Analyses Conducted - 5

“The FRIMA program serves as an excellent example of government and private land owners working together to promote conservation. The screening of irrigation diversions plays a key role in Idaho’s efforts to restore salmon populations while protecting rural economies.”

Dirk Kempthorne, Governor, State of Idaho



Idaho Overview

“For Fiscal Years 2002-2004, Idaho received 36 screening, passage or inventory project applications asking for \$2,098,064 in funding under the FRIMA program.

Species benefited include ESA-listed Chinook salmon, steelhead trout, and bull trout. Other native species benefited include native westslope cutthroat trout, Bonneville cutthroat trout, Yellowstone cutthroat trout, redband trout, sculpin, and mountain whitefish.

Partners and supporters have included a diverse group of landowners, water users, water districts, conservation districts, local, state and federal government agencies, and nonprofit organizations. Interest in the program is growing. It is anticipated that a broader scope in geographical area and partners will occur in 2005.”

Bill Hutchison
Idaho Department of Fish and Game



Howard Johnson, NRCS Photo

Idaho Agriculture at a glance:

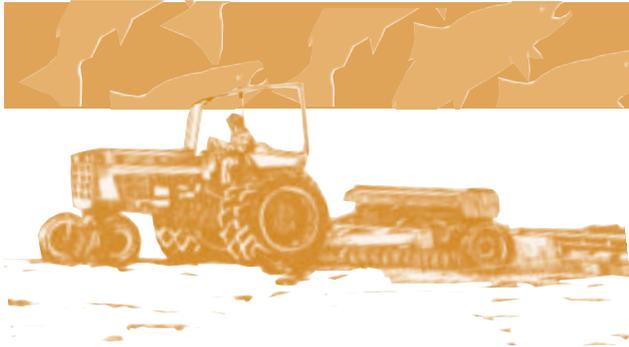
Idaho has 3,288,522 acres of irrigated farmland. Sixty four percent of its 16,000 farms are irrigated.

In 2002 cash receipts were at a record \$3.9 billion, led by the cattle industry. Idaho agriculture is strong and remains the state’s leading natural resource-based industry.

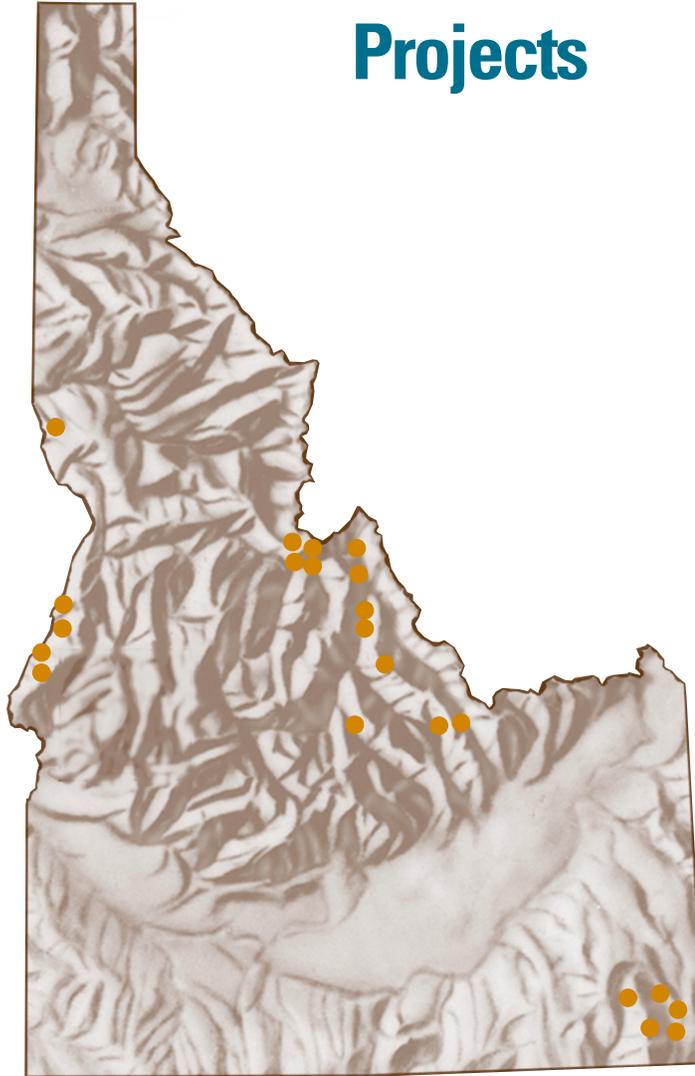
Idaho Fish Passage at a glance:

- Completed 13 of 24 projects.
- Protected, enhanced, or made accessible, more than 206 miles of streams important to fish.
- Addressed 2 fish passage barriers.
- Installed 7 fish screens (with more in construction.)
- Completed 3 fish passage and screening inventories.

Idaho



FRIMA Projects



"I think there's a failure to recognize how difficult it is to put together most of these projects... You've got a lot of time and effort invested in each one of these projects before they ever get started"

*Bob Loucks, rancher, Salmon, Idaho,
...talking about fish passage and habitat projects in general.*

Idaho

Project Example



East Fork Weiser River Project
 Adams County Irrigation District, ID.
FRIMA cost: \$54,694
Partner Match: \$26,055
Total project cost: \$80,749
Species benefited: bull trout

Working closely with local irrigation districts and other federal agencies, a horizontal flat plate screen irrigation diversion was installed, allowing fish to return to the creek below the diversion point. In-stream structures such as these provide important pool habitat for salmonids.

“Working closely with landowners to identify creative strategies to protect and restore native and wild trout is integral to what we do. The FRIMA Program helps us turn strategies into success.”

Scott Yates
 Director Trout Unlimited
 Idaho Water Office.

Bull trout are one step closer to being a healthy population.



Bulltrout

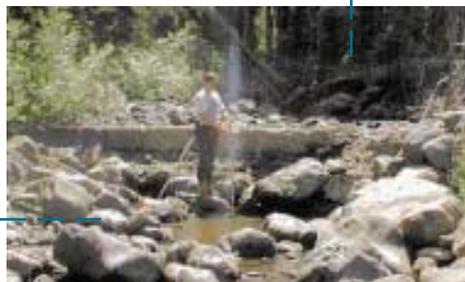


Challenge



Fish could not make it up to the diversion, let alone over it.

Response



Installing step pools permitted fish to make it to and over the diversion.

Result



Idaho

FRIMA Projects

Quick Reference...



Study or Observation Project

Fish Screen Project

Headgate or Diversion Project

Habitat Enhancement Project

Fish Ladder Project

Idaho



Project Falls Creek

Description Fish screen and passage project on a 44 cfs irrigation water diversion in the Pahsimeroi River Basin near Salmon, ID.

Species Benefited Bull trout, Chinook salmon, steelhead, rainbow trout, and cutthroat trout

Partners The Custer SWCD, Idaho Office of Species Conservation

FRIMA \$237,500 (additional money added later)

Match \$54,115

Total \$291,615

Completed No **Will be Completed** Yes

Idaho



Project Bear Creek

Description To improve diversion for water quality and fish passage, and screen ditch for fish by constructing and installing an irrigation diversion structure and fish ladder.

Species Benefited Bull trout

Partners The Bear Community Ditch, West Highlands RC&D Council

FRIMA \$42,582

Match \$26,550

Total \$69,132

Completed Yes

Idaho



Project Panther Creek

Description Fish screen project on a series of 3 irrigation water diversions in the Salmon River Basin near Salmon, ID. Screened three diversion sites with each Panther Creek diversion for consolidation.

Species Benefited Bull trout, Chinook salmon, steelhead, rainbow trout, and cutthroat trout

Partners The Lemhi SWCD, Idaho Office of Species Conservation, U.S. Forest Service

FRIMA \$86,323

Match \$46,481

Total \$132,804

Completed No **Will be Completed** Yes

Idaho



Project Salmon River Watershed Inventory, Phase 1

Description Define opportunities for restoring stream flows, providing for fish passage, and installing fish screens in Upper Lemhi River tributary streams. During FY 2002 and 2003 this project was divided into four phases. Those phases are: 1) To determine landowner willingness to participate; 2) To map irrigation systems; 3) To determine fish usage in ditch systems and associated stream corridors; 4) To determine in-stream water flows and potential fish barriers around points of irrigation diversions.

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

Partners Idaho Department of Fish and Game

FRIMA \$29,900

Match \$16,100

Total \$46,000

Completed Yes

Idaho



Project Moyer and Panther Creek

Description Fish screen project on a series of 3 irrigation water diversions in the Salmon River Basin near Salmon, ID. Consolidate one ditch into IDFG-02-08.

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

Partners The Lemhi SWCD, Idaho Office of Species Conservation, U.S. Forest Service

FRIMA \$51,861

Match \$40,250

Total \$92,111

Completed No **Will be Completed** Yes

Idaho



Project Panther Creek 2003

Description Provide passage at two irrigation diversions. Fish screens will be installed at a later date.

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

Partners The Natural Resources Conservation Service, Landowner

FRIMA \$66,544

Match \$17,500

Total \$84,044

Completed No **Will be Completed** Yes

Idaho



Project Salmon River Watershed Inventory, Phase 2

Description Define opportunities for restoring stream flows, providing for fish passage, and installing fish screens in Upper Lemhi River tributary streams. During FY 2002 and 2003 this project was divided into four phases. Those phases are: 1) To determine landowner willingness to participate; 2) To map irrigation systems; 3) To determine fish usage in ditch systems and associated stream corridors; 4) To determine in-stream water flows and potential fish barriers around points of irrigation diversions

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

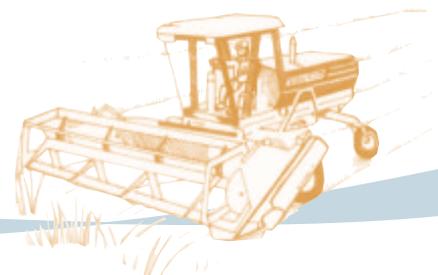
Partners Idaho Department of Fish and Game

FRIMA \$29,900

Match \$16,100

Total \$46,000

Completed Yes



Idaho



Project Garden Creek

Description Remove two existing diversion structures for flood irrigation and replace it with a low pressure state of the art pivot irrigation system. New headgate and diversion will be screened.

Species Benefited Yellowstone Cutthroat Trout

Partners Trout Unlimited

FRIMA \$48,950

Match \$21,350

Total \$70,300

Completed Yes

Idaho



Project Boulder Creek Yantis Ditch

Description Fish screen project at an irrigation water diversion on a tributary to the Little Salmon River that diverts water to Weiser drainage.

Species Benefited Bull trout, steelhead trout

Partners The Adams SWCD, U.S. Forest Service, Idaho Department of Fish and Game

FRIMA \$5,715

Match \$8,938

Total \$14,653

Completed Yes – Spring 2005

Idaho



Project East Fork Weiser River

Description Install a horizontal flat plate screen irrigation diversion, allowing fish to return to the creek below the diversion point. Provide fish passage over structure.

Species Benefited Bull Trout

Partners The East Fork Ditch Company, West Highlands RC&D Council, Bureau of Reclamation, U.S. Forest Service

FRIMA \$62,905

Match \$26,055

Total \$88,960

Completed Yes

Idaho



Project Thomas Fork Rigby

Description Provide fish screening and passage at one of three irrigation diversions in this drainage.

Species Benefited Bonneville Cutthroat Trout

Partners The Bear Lake Regional Commission, Trout Unlimited, Idaho Department of Fish and Game

FRIMA \$34,500

Match \$16,500

Total \$51,000

Completed Yes

Idaho



Project Timber Creek Inventory

Description Collect data on stream and ditch flows in the Big Timber Watershed, fish entrainment and potential mortality in irrigation canals, water temperature changes in canals in relation to the stream channel, and determine possible projects to resolve resource conflicts (diversion and irrigation improvements).

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

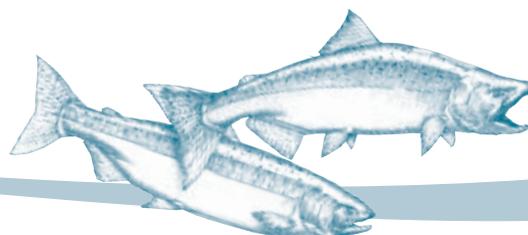
Partners Bureau of Land Management, Idaho Department of Fish and Game, Idaho Water Resources

FRIMA \$40,073

Match \$24,594

Total \$64,667

Completed Yes



Idaho



Project Big Lost Inventory

Description Identify irrigation structures that function as barriers or entrain fish for future prioritization of screen and passage improvements.

Species Benefited Mountain Whitefish

Partners Idaho Department of Fish and Game

FRIMA \$ \$7,214

Match \$ \$3,150

Total \$ \$10,364

Completed Yes

Idaho



Project St. Charles Creek Screens

Description Screen two irrigation diversions and provide bypass channels back to the creek for entrained fish.

Species Benefited Bonneville Cutthroat

Partners Idaho Department of Fish and Game

FRIMA \$ \$114,422

Match \$ \$61,600

Total \$ \$176,022

Completed No **Will be Completed** Yes

Idaho



Project Thomas Fork Taylor Ditch

Description Screen irrigation diversion and provide fish passage for upstream migrants.

Species Benefited Bonneville Cutthroat

Partners Trout Unlimited, McMurray Foundation, Trout and Salmon Foundation, Bear Lake Regional Commission

FRIMA \$ \$80,000

Match \$ \$44,000

Total \$ \$124,000

Completed Yes

Idaho



Project Little Lost Daryl Andreason

Description Replace existing rock headgate with concrete structure and associated fish ladder.

Species Benefited Bull Trout

Partners Idaho Department of Fish and Game, Trout Unlimited, Landowner

FRIMA \$ \$26,700

Match \$ \$14,630

Total \$ \$41,330

Completed No **Will be Completed** Yes

Idaho



Project Little Lost Jim Andreason

Description Replace existing rock headgate with concrete structure and associated fish ladder.

Species Benefited Bull Trout

Partners Idaho Department of Fish and Game, Trout Unlimited, Landowner

FRIMA \$ \$23,940

Match \$ \$13,647

Total \$ \$37,587

Completed No **Will be Completed** Yes



Idaho



Project Hornet Creek Ditch

Description Replace rock diversion structure with concrete diversion structure, headgate, fountain screen and fish ladder.

Species Benefited Bull trout, redband trout

Partners The Middle Hornet Ditch Users, Southwest Regional Advisory Committee

FRIMA \$ \$33,680

Match \$ \$18,135

Total \$ \$51,815

Completed Yes

Idaho



Project Wallace Creek

Description Experimental fish screen with headgate, wasteway and measuring device.

Species Benefited Westslope cutthroat trout

Partners Savage Ranch Water Users Association

FRIMA \$ \$2,963

Match \$ \$3,334

Total \$ \$6,270

Completed Yes

Idaho



Project Salmon River Watershed Inventory, Phase 3

Description Define opportunities for restoring stream flows, providing for fish passage, and installing fish screens in Salmon River tributary streams.

Species Benefited Chinook salmon, steelhead, bull trout, westslope cutthroat trout

Partners Idaho Department of Fish and Game

FRIMA \$ \$29,900

Match \$ \$16,100

Total \$ \$46,000

Completed Yes

Idaho



Project Bear River Drainage Inventory

Description Inventory irrigation diversions by establishing a database with GPS locations, water rights, barrier status, frequency of dewatering; estimate fish loss; interview water users for potential for irrigation improvements and water savings.

Species Benefited Bonneville cutthroat

Partners Idaho Department of Fish and Game

FRIMA \$ \$87,759

Match \$ \$38,325

Total \$ \$126,084

Completed No **Will be Completed** Yes

Idaho



Project Teton Basin Inventory

Description Inventory irrigation diversions, establish database with GPS locations, water rights, barrier status, frequency of dewatering, estimate fish loss; interview water users for potential for irrigation improvements and water savings.

Species Benefited Yellowstone cutthroat trout

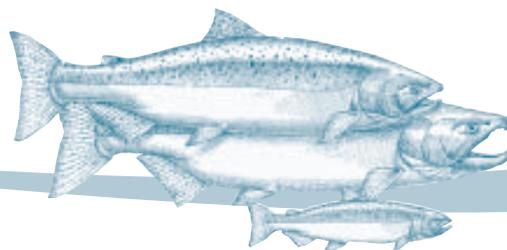
Partners Friends of the Teton River, Idaho Department of Fish and Game

FRIMA \$ \$8,630

Match \$ \$7,294

Total \$ \$15,924

Completed Yes



Idaho



Project St. Charles Creek Screens 2

Description Screen two irrigation diversions and provide improved channel passage for migrating fish.

Species Benefited Bonneville cutthroat

Partners Ducks Unlimited, FWS

FRIMA \$ \$250,000

Match \$ \$183,089

Total \$ \$433,089

Completed Yes

Idaho



Project Sweetwater Creek

Description Design and feasibility phase for fish screen and passage at irrigation dam.

Species Benefited Steelhead trout

Partners Lewiston Orchards Irrigation District, Nez Perce Tribe, Bureau of Reclamation

FRIMA \$ \$27,250

Match \$ \$97,223

Total \$ \$124,473

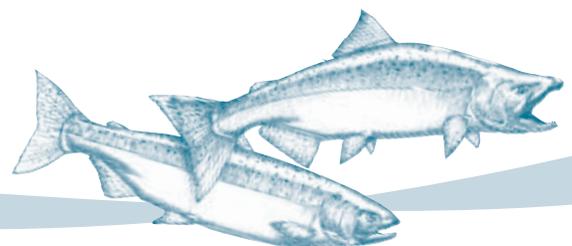
Completed Yes

TOTALS

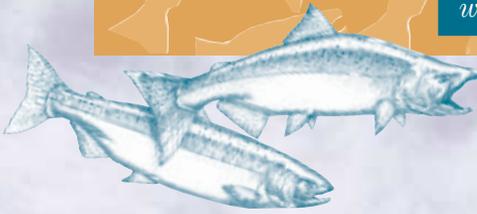
FRIMA \$ \$1,429,184

Match \$ \$815,060

Total \$ \$2,244,244



“FRIMA is about keeping Western values intact...In Montana we take great pride in the health of our native fisheries and the rivers and streams they inhabit. Through assistance to farmers and ranchers, Indian Tribes, and municipalities, FRIMA offers us a way to help our native fish survive while keeping people working on the land.”
Brian Schweitzer; Governor; State of Montana



Montana Overview

“Montana received 32 applications for FRIMA funding for fiscal years 2002-2004. Of the 28 applications deemed eligible for funding by Montana’s review panel, one proposal was cancelled, one proposal was withdrawn and 26 proposals received FRIMA funding totaling \$2,162,467. Forty-five partners provided an additional \$1,336,351 in non-federal cost share to fully fund these projects.”

The approach in Montana has been to emphasize cooperation and voluntary participation in addressing fish passage issues.

Project implementation is limited to staff, time and funding resources. There are limited staff at the all levels of government to implement more than the current level of 5-8 projects a year; even though opportunities to conserve native fish and benefit irrigators far exceeds this.”

Mark Lere
Montana Fish, Wildlife and Parks



Gary Kramer, NRCS Photo

Montana Agriculture at a glance:

Agriculture is the financial engine that drives Montana’s economy, bringing in \$2 billion in annual revenue plus associated benefits to rural communities. One in five Montana workers is employed in agriculture or a related field. Montana has 2.8 million acres of irrigated farmland.

Montana Fish Passage at a glance:

- Completed 18 of 26 projects.
- Protected, enhanced, or made accessible, more than 204 miles of streams important to fish.
- Addressed 4 fish passage barriers.
- Installed 15 fish screens.
- Completed 3 fish passage and screening inventories.



Montana

(Pacific Drainage Area)

FRIMA Projects



"We are able to be good stewards and good neighbors, while gaining efficiency in our operations and developing valuable relationships with agencies like Montana Fish, Wildlife and Parks, and local anglers."

Barry Persson, Manager, Daly Ditches Irrigation District

Montana

Project Example



Dunham Creek
 Water Diversion Project
 Powell County, MT
FRIMA cost: \$18,828
Partner Match: \$10,172
Total project cost: \$29,000
Species benefited: westslope
 cutthroat trout, bull trout

Before reconstruction, irrigators placed fence posts, boards and tarps across the stream to get enough water for their irrigation needs. This practice in turn created major problems for upstream and downstream migrating native trout and encouraged widening of the stream and lateral bank erosion. Now, with the new Cross-Vane structure, the irrigator gets his water without entering the stream. We now have fish passage and a stable stream reach.

“This project, which would be beyond our means without federal assistance, will bring significant improvements to one of the most outstanding river valleys in the state.”

Mark Lere,
 Fisheries Habitat Restoration Officer,
 Montana Fish, Wildlife and Parks (MFWP)



Challenge



A board and tarp barrier created problems for fish.

Response



Insertion of a boulder cross-vane structure improves stream habitat for fish.

Result



Lolo National Forest Photo.

Habitat restoration benefits species like the westslope cutthroat trout.

Montana

FRIMA Projects

Montana



Project Poorman Creek, Lewis County, MT

Description Modification of an irrigation system and installation of a fish screen. Project will improve instream flow and eliminate fish losses to the irrigation ditches, and improve upstream and downstream fish passage.

Species Benefited Bull trout and westslope cutthroat trout.

Partners MFWP, NRCS, Lewis and Clark Conservation District and the holder of water rights.

FRIMA \$6,390

Match \$3,460

Total \$9,850

Completed Yes

Montana



Project Dick Creek Rollingstone Ranch

Description Dick Creek turbulent fountain is low maintenance option to prevent entrainment at a headgate.

Species Benefited Westslope cutthroat trout, and rainbow, brown and brook trout.

Partners MFWP and the water user.

FRIMA \$15,000

Match \$10,000

Total \$25,000

Completed No **Will be Completed** Yes

Montana



Project Therriault Creek Diversion

Description Fish screen on an irrigation water diversion in the Kootenai River Basin near Eureka, MT.

Species Benefited Westslope cutthroat trout and bull trout.

Partners The Lincoln County Conservation District, Glen Lake Irrigation District, Kootenai River Network, Montana Department of Natural Resources and Conservation and MFWP.

FRIMA \$50,000

Match \$109,400

Total \$159,400

2002

Completed Yes / 2005

Montana



Project Skalkaho Creek Diversions (phase 1)

Description Screening three irrigation diversions to improve downstream movement.

Species Benefited Westslope cutthroat trout and bull trout.

Partners MFWP, Daly Ditches Irrigation District, Bitter Root Water Forum and Bitterroot Conservation District.

FRIMA \$158,127

Match \$85,173

Total \$243,300

Completed Yes

Montana



Project Bitterroot River Republican Diversion

Description Install a self-cleaning W-configured flat plate screen to prevent entrainment.

Species Benefited Westslope cutthroat trout and bull trout.

Partners MFWP, Daly Ditches Irrigation District, Bitter Root Water Forum and Bitterroot Conservation District.

FRIMA \$185,952

Match \$100,148

Total \$286,100

Completed Yes

Montana



Project Dunham Creek, Powell County, MT.

Description The first project completed by the FRIMA Program. Replaced an irrigation diversion to improve channel stability and restore upstream passage.

Species Benefited Westslope cutthroat trout and bull trout.

Partners MFWP and the North Powell Conservation District.

FRIMA \$18,828

Match \$10,172

Total \$29,000

Completed Yes

Montana



Project Twin Lakes Creek Diversion - design phase

Description Collect necessary data to produce a design to screen the flume and provide fish passage on Twin Lakes Creek.

Partners MFWP, Beaverhead-Deerlodge National Forest, and city and county of Butte-Silver Bow.

FRIMA \$17,856

Match \$11,144

Total \$29,000

Completed Yes

Montana



Project Cottonwood Creek - Dryer Diversion and Ladder

Description Fish passage at an irrigation water diversion on Cottonwood Creek, located in the Blackfoot River Basin near Ovando, MT.

Species Benefited Bull trout and westslope cutthroat trout.

Partners The North Powell Conservation District, MFWP, and Big Blackfoot Chapter Trout Unlimited.

FRIMA \$10,451

Match \$5,649

Total \$16,100

Completed Yes

Montana



Project E.Finley Creek Screen Jocko N

Description Installation of a fish screen on an irrigation water diversion in the Flathead River basin near Arlee, MT. Implementing proposed screening will eliminate fish losses due to irrigation ditch, and improve downstream passage.

Species Benefited Bull trout and westslope cutthroat trout.

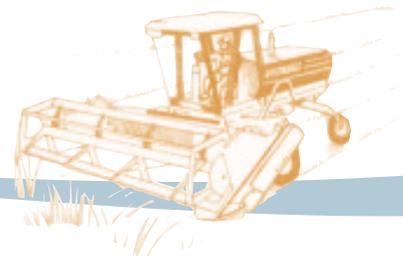
Partners The Confederated Salish-Kootenai Tribes and the Flathead Agency Irrigation Division.

FRIMA \$4,664

Match \$4,436

Total \$9,100

Completed Yes



Montana



Project MF Jocko R Screen (Tabor Feeder)

Description This fish screen project is on a 140 cfs irrigation water diversion in the Flathead River basin near Arlee, MT. Implementing proposed screening will eliminate fish losses due to the irrigation ditch and improve downstream passage.

Species Benefited Bull trout and westslope cutthroat trout.

Partners The Confederated Salish-Kootenai Tribes and the Flathead Agency Irrigation Division.

FRIMA \$77,587

Match \$46,413

Total \$124,000

Completed Yes

Montana



Project Post Creek Pablo Flume (1&2)

Description (Phase 1) Flume construction project to prevent fish entrainment into a large irrigation water diversion in the Flathead River basin near Ronan, MT. It will eliminate fish losses due to the irrigation ditch and improve downstream passage.

Species Benefited Bull trout and westslope cutthroat trout.

Partners Confederated Salish-Kootenai Tribes and the Flathead Agency Irrigation Division.

FRIMA \$191,240

Match \$105,610

Total \$296,850

Completed Yes

Montana



Project Post Creek Kicking Horse Screen

Description This is a fish screen and passage project on an water diversion that is located in the Flathead River basin near Ronan, MT.

Species Benefited Bull trout, westslope cutthroat trout, mountain whitefish and rainbow trout.

Partners The Confederated Salish-Kootenai Tribes and the Flathead Agency Irrigation Division.

FRIMA \$116,048

Match \$67,852

Total \$183,900

Completed Yes

Montana



Project Warm Springs Creek Meyers Dam Diversion - design phase

Description Collect necessary data to produce a design and cost estimate to reconfigure an impassable diversion and install a fish screen at Meyers Dam.

Partners MFWP, Beaverhead-Deerlodge National Forest, and city and county of Butte-Silver Bow.

FRIMA \$18,915

Match \$11,185

Total \$30,100

Completed Yes

Montana



Project Bitterroot Tributary Inventory (Phase 2)

Description Inventory fish passage problems on tributaries in the Bitterroot watershed to develop plans for prioritized site-specific passage and entrainment solutions. Project expanded from first year of Program.

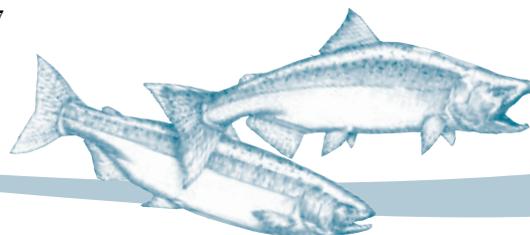
Partners MFWP.

FRIMA \$6,789

Match \$3,711

Total \$10,500

Completed No **Will be Completed** Yes / 2006, 2007



Montana



Project Skalkaho Creek Hedge Siphon (phase 2a) Ravalli County, MT (phases 2a)
Description Phase 1 installed fish screens at the three diversions on Skalkaho Creek. This project will rebuild a merged crossing into a siphon to separate canal flow from the stream.
Species Benefited Bull trout and westslope cutthroat trout.
Partners MFWP, Daly Ditches Irrigation District, and Bitterroot Conservation District.
FRIMA \$271,139
Match \$146,061
Total \$417,200
Completed Yes

Montana



Project Skalkaho Creek Republican Siphon (phase 2b)
Description Ravalli County, MT (phases 2b)- This project will rebuild a merged crossing into a siphon to separate canal flow from the stream.
Species Benefited Bull trout and westslope cutthroat trout.
Partners MFWP, Daly Ditches Irrigation District, and Bitterroot Conservation District.
FRIMA \$288,624
Match \$73,941
Total \$362,565
Completed Yes

Montana

Project Skalkaho Creek Republican siphon supplemental
Description Cost increase for previous project described.
FRIMA Added \$90,750 to Skalkaho Creek Republican siphon
Completed Yes

Montana



Project Post Creek Pablo “W” Screen
Description This fish screen will prevent fish entrainment into a large irrigation water diversion in the Flathead River basin near Ronan, MT.
Species Benefited Westslope cutthroat trout, bull trout, mountain whitefish, long nose dace, slimy sculpin and rainbow trout.
FRIMA \$108,580
Match \$67,770
Total \$176,350
Completed Yes

Montana



Project Bitterroot River tributary inventory (phase 3)
Description Expanded inventory of fish passage problems on tributaries located in the Bitter watershed to develop plans for prioritized site-specific passage and entrainment solutions.
Partners MFWP and Montana State University.
FRIMA \$90,000
Match \$31,500
Total \$121,500
Completed No **Will be Completed** Yes / 2006, 2007

Montana



Project Lolo Creek fish screen, Maclay Ditch
Description Install a self-cleaning style fish screen on a major diversion located on Lolo Creek, a tributary to the Bitterroot River.
Species Benefited Westslope cutthroat trout.
Partners MFWP and the Lolo MaClay Ditch water users.
FRIMA \$86,559
Match \$46,609
Total \$133,168
Completed No



Montana



Project Grave Creek fish screen and passage

Description Install a fish screen to prevent entrainment of fish in the existing water distribution system. Combined with ongoing habitat restoration, this project will benefit bull trout survival in this important spawning tributary.

FRIMA \$46,000

Match \$194,100

Total \$240,100

Completed No

Montana



Project Clearwater Ditch

Description Install a fish screen on major diversion located on the Clearwater River.

Species Benefited Westslope cutthroat trout and many other native fishes.

Partners MFWP and the water user.

FRIMA \$50,235

Match \$27,050

Total \$77,285

Completed Yes

Montana



Project Stony Creek 9-mile Diversion Screen - Lolo National Forest

Description Install a fish screen to benefit a westslope cutthroat trout population located in headwaters of upper Stony Creek in the Ninemile Ranger District of Lolo National Forest. Replace a deteriorating diversion and install a fish screen and new head gate structure to eliminate entrainment of fish.

Species Benefited Westslope cutthroat trout, bull trout, brown trout, rainbow trout and mountain whitefish.

FRIMA \$4,000

Match \$6,200

Total \$10,200

Completed No **Will be Completed** Yes

Montana



Project Bitterroot Tributary Inventory (Phase 1)

Description Inventory fish passage problems on tributaries in the Bitterroot watershed to develop plans for prioritized site-specific passage and entrainment solutions.

Partners MFWP

FRIMA \$6,796

Match \$3,704

Total \$10,500

Completed Yes

Montana



Project Hoxworth/Williams Ditch

Description Williams/Hoxworth ditch project will consolidate two diversion ditches to one ditch with a self-cleaning paddle fish screen. This will complete screening on all five ditches on the North Fork Blackfoot River.

Species Benefited Westslope cutthroat and bull trout.

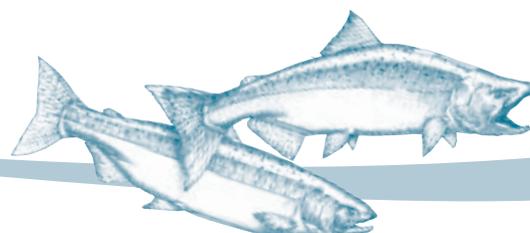
Partners Water rights owners and the Blackfoot Challenge.

FRIMA \$149,937

Match \$165,063

Total \$315,000

Completed No **Will be Completed** Yes



Montana



Project H2 Bar OWPA-NWR

Description Replace a deteriorating diversion and install a new headgate to eliminate entrainment of fish.

Species Benefited Westlope cutthroat, bull trout, rainbow trout and mountain whitefish.

Partners Wildlife Partners program

FRIMA \$78,000

Match \$14,000

Total \$92,000

Completed No **Will be Completed** Yes

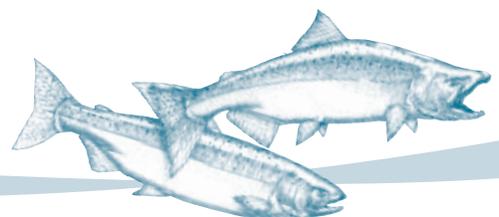
*This project was added late and match dollar figures were not used in this report's calculations.

TOTALS

FRIMA \$2,162,467

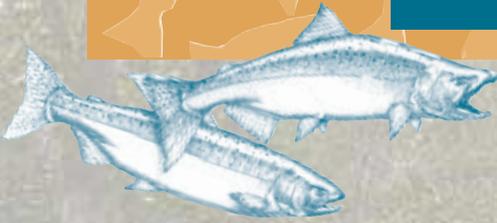
Match \$1,336,351

Total \$3,498,818



“Irrigated agriculture is important to the economy of our region. Fish screens at water diversions are key to mitigating these diversions as a source of fish mortality in order to increase the numbers of salmon and steelhead spawning in Oregon streams. FRIMA funds have helped accomplish this.”

Ted Kulongoski, Governor, State of Oregon



Oregon Overview

“The FRIMA Program is a valuable source of funding for improving fish survival at water diversions and dams throughout Oregon. These federal matching funds, along with state and local resources, have resulted in the installation of fish screens at water diversions and will ensure future fish passage at dams. During the last three years (2002-2004), Oregon has received \$2,443,418 in FRIMA funds for ten fish screens, five fishways and four inventory projects. The contributions of the matching partners, including the State of Oregon, are significant since the total projected cost of projects is \$7,420,038. Fish species protected are ESA-listed, game and food fish including salmon, steelhead, trout and Klamath suckers.

Fourteen partners have been involved in contributing work, funds and expertise in implementing the FRIMA Program during the past three years. These partners are essential for the completion of complex fish screening and passage projects. Competition for these grant funds in Oregon was intense. Requests for FRIMA funds were \$5,944,179 for projects that totaled \$13,844,301.”

Ray Hartlerode
Oregon Department of Fish and Wildlife



Ron Nichols, NRCS Photo

Oregon Agriculture at a glance:

The value of Oregon’s 2003 agricultural production totaled nearly \$3.8 billion. More than 220 commodities can be found throughout the state. Nearly 18 percent of Oregon’s economy is related to agriculture, and 1,622,235 acres of land are irrigated. Approximately 140,000 Oregon jobs are tied to the industry, and about 60,000 of these are located on farms.

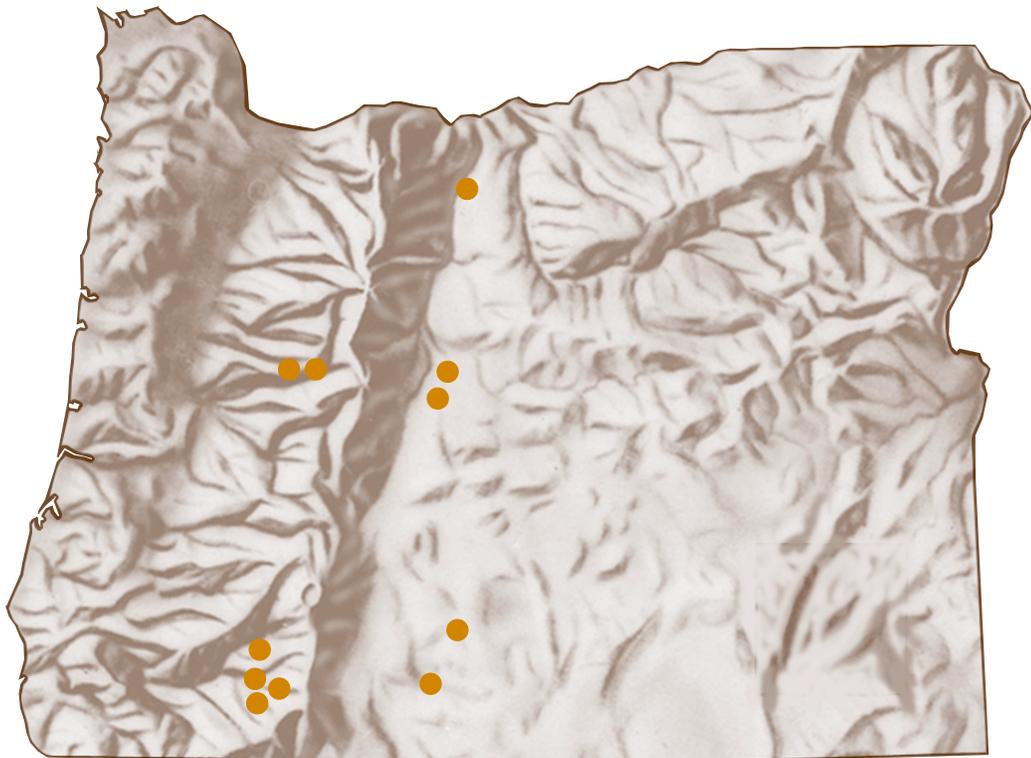
Oregon Fish Passage at a glance:

- Completed 13 of 15 projects.
- Protected, enhanced, or made accessible, more than 144 miles of streams important to fish.
- Addressed 6 fish passage barriers.
- Installed 12 fish screens.
- Completed 2 fish passage and screening inventory.

Oregon



FRIMA Projects



*“The Oregon Water Resources Congress supported the creation of the FRIMA program initially and supports the continuation of the program as a cost-sharing partnership between the federal government and the systems supplying irrigation water in Oregon.
John Herlocker, President, Oregon Water Resources Congress,
Central Oregon Irrigation District*”

Oregon Project Example



Santiam Fish Screen Project
Santiam, Oregon.
FRIMA cost: \$400,000
Partner match: \$1,717,720
Total project cost: \$2,117,720
Species benefited: ESA listed
Chinook, steelhead and
Oregon chubs, coho and
cutthroat trout

The Santiam Water Control District operated a combined irrigation, municipal, and hydroelectric water diversion on the North Santiam River in the Willamette River Basin. This was the largest unscreened diversion in Oregon.

Fish were swimming into the irrigation canal and ending up on irrigated fields. To address this issue a tail race barrier, bypass return pipe, and fish screen were installed at the diversion irrigation canal outfall into the river. The fish bypass return pipe is a 600-foot, 28-inch pipe that conveys water and fish back into the North Santiam River.

“FRIMA funds were vital to project completion. I believe we were the first recipient of FRIMA grant funds in Oregon, and throughout the project our ability to use that grant truly helped with our cash flow during construction of the \$1.6 million project. We hope that FRIMA funds are available in the future for other fish screening projects around the state, and look forward to applying to FRIMA again for additional screening projects that the Santiam Water Control District is planning.”

Larry Troisi, Manager
Santiam Water Control District



Fish friendly water diversion canal reduces fish mortality.

Challenge



A large irrigation, municipal and hydroelectric diversion canal.

Response



Large fish screen under construction.

Result





Oregon

FRIMA Projects

Oregon



Project Central Oregon Irrigation District, Swalley Irrigation District, and Lone Pine Irrigation District (ID)

Description This joint fish screening project involves two fish screens that are operated by three Irrigation Districts: Central Oregon ID, Swalley ID, and Lone Pine ID. The diversions are on the Deschutes River in the Deschutes River Basin. The redband trout support a recreational fishery.

Species Benefited Redband trout and other native species.

Partners Central Oregon ID, Swalley ID, and Lone Pine ID

FRIMA \$274,950

Match \$725,050

Total \$1,000,000

Completed Yes

Oregon



Project Eagle Point Irrigation District

Description The District operates a combined irrigation and hydroelectric water diversion on South Fork Big Butte Creek in the Rogue River Basin. Two fish screens and one fishway were installed to protect ESA-listed coho salmon and steelhead as well as native cutthroat trout. Benefits include protection for migratory fish, restoration of access to spawning and rearing areas, and enhanced important commercial and recreational fisheries.

Species Benefited Coho salmon, steelhead, native cutthroat trout.

Partners Eagle Point Irrigation District

FRIMA \$306,800

Match \$541,730

Total \$848,530

Completed Yes

Oregon



Project Lakeshore Gardens Drainage District

Description The Lakeshore Gardens Drainage District operates an irrigation diversion in Upper Klamath Lake near Klamath Falls. A fish screen was installed to protect ESA-listed shortnose and Lost River suckers as well as a recreational redband trout fishery. Suckers are a culturally important fish to local tribes.

Species Benefited Redband trout, shortnose and Lost River suckers.

Partners Lakeshore Gardens Drainage District

FRIMA \$24,628

Match \$13,261

Total \$37,889

Completed Yes

Oregon



Project Lost and Boulder Diversion

Description The Lost and Boulder Ditch Improvement District operates an irrigation diversion on Boulder Creek in the Deschutes River Basin. A fish screen and fishway were installed to protect and enhance a genetically unique stock of redband trout in the White River Basin.

Partners Lost and Boulder Ditch Improvement District

FRIMA \$76,063

Match \$67,586

Total \$143,649

Completed Yes

Oregon



Project Medford Irrigation District North Fork Little Butte Creek

Description The Medford Irrigation District operates an irrigation water diversion on the North Fork of Little Butte Creek in the Rogue River Basin. A fish screen has been installed and a fishway is in design phase. The new screen and fishway protect ESA-listed coho salmon as well as steelhead and trout. Benefits include protection for migratory fish, restoration of access to spawning and rearing areas, and enhanced important commercial and recreational fisheries.

Partners Medford Irrigation District, Rogue River Irrigation District

FRIMA \$488,000

Match \$280,000

Total \$768,000

Completed Yes

Oregon



Project Medford Irrigation District South Fork Little Butte Creek

Description The Medford Irrigation District operates an irrigation diversion on the South Fork of Little Butte Creek in the Rogue River Basin. The fish screen has been installed and the fishway will be complete after the addition of one more pool. The new screen and fishway protect ESA-listed coho salmon as well as steelhead and trout. Benefits include protection for migratory fish, restoration of access to spawning and rearing areas, and enhanced important commercial and recreational fisheries.

Partners Medford Irrigation District, Rogue River Irrigation District

FRIMA \$397,000

Match \$233,000

Total \$630,000

Completed Yes

Oregon

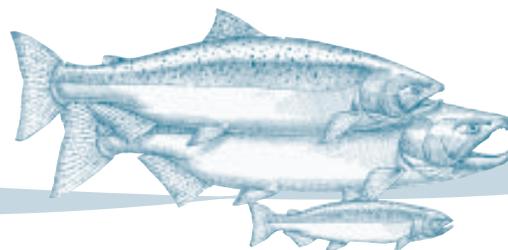


Project Oregon Department of Fish and Wildlife (ODFW) Inventory 2002

Description

Comprehensive Barrier Database Development Project.

Combined ODFW natural and artificial passage barriers database into one system that included existing barrier information from other agencies and entities. Resulting information is available and accessible through the ODFW website. ODFW is working with the Oregon Fish Passage Task Force to come up with a conceptual approach to prioritize barrier replacement efforts.



Wood River Water Diversions and Fish Screens Assessment.

Water diversions were surveyed in the Wood River - Agency Lake Sub-basin (Wood River, Annie Creek, Sun Creek, Sevenmile Creek, Fort Creek, and Crooked Creek) in the Klamath River Basin for screening status. The ongoing assessment includes screening needs, estimated screening costs, location maps, and screening priorities.

Little Butte Creek Diversions and Screens Assessment.

Eleven water diversions with fish screens were surveyed in Little Butte Creek in the Rogue River Basin. The fish screens are old and out-of-criteria, so screen replacement was assessed. Landowners were contacted and willing to participate in screens replacement. Screen locations were mapped using GIS. This inventory project is complete.

FRIMA \$76,000

Match \$53,777

Total \$129,777

Completed Yes

Oregon



Project Running Y Ranch, Geary Canal

Description The Geary Canal is an irrigation diversion in Upper Klamath Lake. Screen site analysis and road work are completed. Design is underway. The screen will protect ESA-listed shortnose and Lost River suckers as well as redband trout. Suckers are a culturally important fish to local tribes. The redband trout support a recreational fishery.

Species Benefited Redband trout, shortnose and Lost River suckers.

Partners Running Y Ranch, Wocus Drainage District

FRIMA \$44,727

Match \$703,273

Total \$748,000

Completed No **Will be Completed** Yes

Oregon



Project Santiam Water Control District

Description The Santiam Water Control District operates a combined irrigation, municipal and hydroelectric water diversion on the North Santiam River in the Willamette River Basin. This 1,050 cfs diversion was the largest unscreened diversion in Oregon. The fish screen has been installed and will be inspected after some modifications. A tail race barrier was also installed at the diversion irrigation canal outfall into the river to prevent fish from swimming into the canal. The screen and barrier protect ESA-listed Chinook salmon, steelhead and Oregon chub, as well as coho salmon and cutthroat trout. Benefits include protection for migrating fish and enhancement of important commercial and recreational fisheries.

Species Benefited Chinook salmon, steelhead and Oregon Chub as well as coho salmon and cutthroat trout.

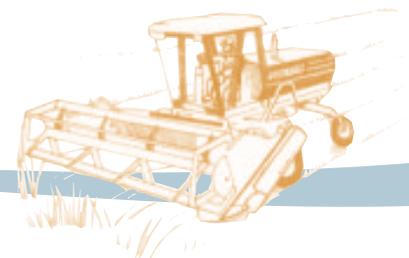
Partners Santiam Water Control District, City of Stayton, Marion Soil and Water Conservation District

FRIMA \$400,000

Match \$1,717,720

Total \$2,117,720

Completed Yes



Oregon



Project Tumalo Bend Feed Canal

Description The Tumalo Irrigation District operates an irrigation diversion on the Deschutes River in the Deschutes River Basin. The new screen protects a redband trout fishery and other native species.

Species Benefited Redband trout and other native species.

Partners Tumalo Irrigation District

FRIMA \$40,000

Match \$262,500

Total \$302,500

Completed Yes

Oregon



Project Upper Bennett Dam, City of Salem

Description The City of Salem operates Upper Bennett Dam, a large dam in the North Santiam River in the Willamette River Basin. The previous fishway was not effective in passing fish upstream. The new fishway allows efficient passage of ESA-listed Chinook salmon and steelhead, as well as coho salmon and cutthroat trout. Benefits include improved access to more than 100 miles of natural production habitat and the enhancement of important commercial and recreational fisheries.

Species Benefited Chinook salmon and steelhead as well as coho salmon and cutthroat trout.

Partners City of Salem

FRIMA \$250,000

Match \$573,750

Total \$823,750

Completed Yes

Oregon



Project Harris Ranch Fish Screens

Description The objective of this project was to install self-cleaning pump screens and associated booster pumps on the intakes of two irrigation pumps on the Harris Ranch in Klamath County, Oregon. Screening these previously unscreened diversions protects short nose and Lost River suckers larger than 30mm and redband trout. Protection of suckers will aid in recovery of these ESA-listed species and will reduce losses of the redband trout, an important sport fish in the basin.

Species Benefited Short nose and Lost River suckers, and redband trout.

Partners ODFW / Local irrigation district.

FRIMA \$13,625

Match \$7,035

Total \$20,100

Completed Yes

Oregon



Project ODFW Inventory–2004, Rogue and Klamath Rivers

Description This project involves screens and passage inventories in numerous tributaries in the Klamath and Rogue river basins.

Species Benefited Anadromous and resident species.

Partners Oregon Department of Fish and Wildlife in cooperation with local partners.

FRIMA \$52,185

Match \$28,098

Total \$80,283

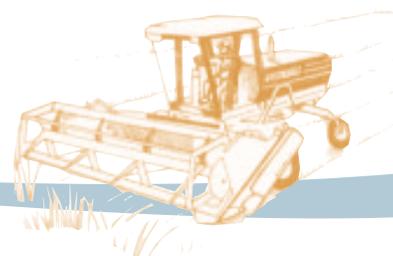
Completed No **Will be Completed** Yes

TOTALS

FRIMA \$2,443,418

Match \$5,206,780

Total \$7,650,198



“We are developing plans for all listed salmon and steelhead in Washington. Improving fish passage and survival through the use of fish screens in agricultural areas will be vital to successful implementation of these plans. We applaud and endorse programs such as FRIMA which promote successful partnerships...”
Christine Gregoire, Governor, State of Washington



Washington Overview

“The FRIMA Program has been an extremely valuable source of funding used to improve salmonid survival at water diversion sites throughout Washington state. Many landowners would love to improve salmon habitat, but do not have the expertise or funding to design and construct the necessary water diversion and screening modifications. This program provides a much needed federal match to the state and local resources that are committed to increasing salmonid survival.

Over two dozen partners have contributed their land, time, funds, and expertise in implementing the FRIMA Program over the past three years. This collaboration is essential for completion of complex fish screening and passage projects. It has been a competitive grant program in Washington state, with only the strongest proposals with the most federal, state, and local support receiving funding awards.”

Greg Hueckel
Washington Department of Fish and Wildlife



Tim McCabe, NRCS Photo

Washington Agriculture at a glance:

Agricultural statistics: Washington has 15.7 million acres of farmland with a farm production value of \$5.6 billion, ranking Washington's farms among the top twelve in the nation. The agri-food complex employs 173,000 people, more than any other sector in the state.

Twenty percent of Washington's harvested cropland is irrigated.

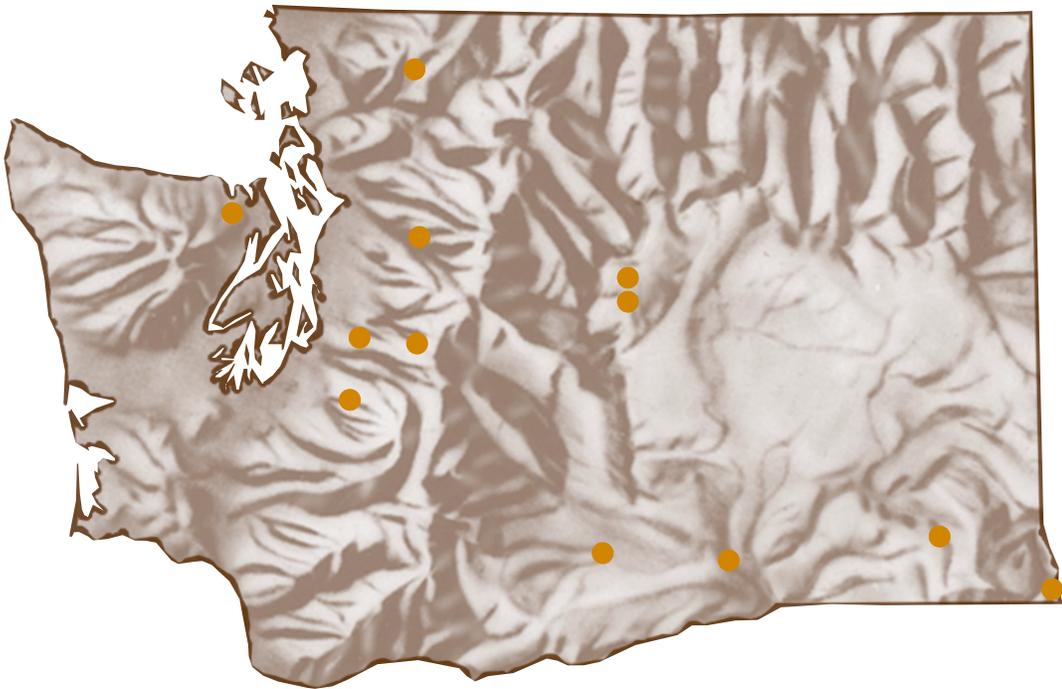
Washington Fish Passage at a glance:

- Completed 12 of 21 projects.
- Protected, enhanced, or made accessible, more than 102 miles of streams important to fish.
- Addressed 3 fish passage barriers.
- Installed 34 fish screens.
- Completed 4 fish passage and screening inventories.

Washington



FRIMA Projects



“The FRIMA Program has been an extremely valuable source of funding used to improve salmonid survival at water diversion sites throughout Washington State...This program provides a much needed federal match to the state and local resources that are committed to increasing salmonid survival.”

*Greg Hueckel, Assistant Director; Habitat Programs,
Washington Department of Fish and Wildlife*

Washington Project Example



-  Mill Creek Screen and Passage
Chelan County, WA
-  **FRIMA cost:** \$21,291
-  **Partner Match:** \$13,501
-  **Total project cost:** \$34,792
- Species benefited:** Steelhead, and adult and juvenile salmonids.

Challenge



Barriers prevent fish access to streams.

Six log weir structures were constructed and installed to provide fish passage past an old barrier. The log weirs improved the overall fish habitat in the project area by increasing pool rearing and spawning habitat. In addition, a new fish screen was purchased and installed on the existing irrigation diversion. The project also included stream bank stabilization and replanting of the riparian area disturbed during construction.

Response



Detailed planning creates win/win situations.

This project serves five water users with a total of 28 acres of irrigated land. Wanting to be good stewards, these landowners took a proactive approach to upgrade the diversion.

“From a Conservation Districts perspective, we rely on programs such as FRIMA to make available to landowners as a means of defraying the costs of implementing Best Management Practice’s. Quite often the land owners want to do the right thing ecologically, but are limited in what they can do at any one time because of costs.”

Michael J. Rickel
County Conservation District

Results



Step pools and fish screens permit fish to effectively access their native streams.



FRIMA Projects

Washington



Project Washington Department of Fish and Wildlife (WDFW) (Habitat)- Lands Inventory
Description Inventory WDFW lands statewide to identify all diversion and associated passage structures. Structures will then be prioritized for corrective actions based on fish presence, status of species present, correction cost, etc.
Partners WDFW
FRIMA \$95,706
Match \$51,534
Total \$147,240
Completed Yes

Washington



Project WDFW (Habitat)- Ahtahum Creek Barrier Inventory
Description Inventory all unscreened or inadequately screened water diversions in the Ahtahum Creek subbasin. The barriers were assessed and prioritized following protocols outlined in the Fish Passage Barrier and Surface Water Diversion Screening Assessment and Prioritization Manual.
Partners WDFW
FRIMA \$56,023
Match \$30,166
Total \$86,189
Completed Yes

Washington



Project WDFW (Habitat)- Cooperative Compliance, Touchet Project Phase I
Description A cooperative effort between WDFW, Washington Department of Ecology (DOE), Walla Walla and Columbia County Conservation Districts, and local irrigators to install state and federal compliant fish screens on surface water diversions in the Walla Walla Basin. This first phase is for design and cost feasibility studies.
Partners Columbia County Conservation District (CD), WDFW, Washington Salmon Recovery Fund.
FRIMA \$78,195
Match \$42,105
Total \$120,300
Completed Yes

Washington



Project WDFW (Hat/Eng)- Voights Creek Fish Hatchery Ladder Phase I
Description The fish ladder on the gravity intake dam is ineffective at allowing upstream passage of adult salmon and trout. Phase I of this project will include design and permitting to remove the impediment to valuable upstream habitat.
Partners Pierce CD, WDFW
FRIMA \$72,393
Match \$38,981
Total \$111,374
Completed No **Will be Completed** Yes

Washington



Project WDFW (Hat/Eng)- Voights Creek Fish Hatchery Screen Phase I

Description The gravity intake screen structure is not effective in preventing natural origin salmonid fry from entering at the hatchery water supply. Phase I of this project will include design and permitting to improve the intake screens to allow better bypass of salmonid fry.

Partners Pierce CD, WDFW

FRIMA \$89,563

Match \$48,225

Total \$137,788

Completed No **Will be Completed** Yes

Washington



Project City of Tacoma- Green River Fish Ladder

Description Construct an adult fish ladder, trap, sorting, holding, and water-to-water transfer facility to provide adult fish passage into the upper Green River watershed.

Partners City of Tacoma, Covington Water District, and Lakehaven Utility District

FRIMA \$120,000

Match \$2,100,000

Total \$2,204,000

Completed Yes

Washington



Project Asotin County Conservation District- Joseph Creek

Description The current diversion system does not function properly, thereby allowing juvenile fish to enter the irrigation system during periods of higher flows and has the potential to lead to entrapment and fish mortality. The project replaced the existing structure with either a new gravity diversion system or a pump system.

Partners Asotin County Conservation District and WDFW

FRIMA \$35,238

Match \$18,974

Total \$54,212

Completed Yes

Washington



Project Drainage Dist #7, Cherry Valley- Cherry Valley Pump

Description The Cherry Valley Drainage District currently has two unscreened water pumps that they rely on to control flooding in the farmland of the lower valley. WDFW is a main landowner within the drainage district along with three other landowners. Washington Trout and Snohomish County Conservation District are project partners.

Partners Cherry Valley Drainage District #7, King Conservation District, WDFW, and Washington Trout

FRIMA \$236,491

Match \$111,300

Total \$347,791

Completed Yes

Washington



Project Meadow Springs Country Club- Amon Creek Passage

Description These funds will be used to construct one fish ladder and install downstream structures. The total project includes constructing a stream simulation and two fish ladders, dredging two ponds, and placing instream structures in the mainstem of Amon Creek.

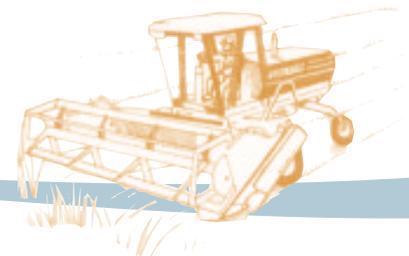
Partners Benton Conservation District, WDFW, Tapteal Greenway, and Meadow Springs Country Club

FRIMA \$162,965

Match \$89,000

Total \$251,965

Completed No **Will be Completed** Yes



Washington



Project Chelan County CD- Mill Creek Screen and Passage

Description This project will provide fish passage and screening for the Mill Creek Ditch, which is now in an 8” pipe and serves 5 water users with a total of 28 acres of land irrigated.

Partners Chelan Conservation District, WDFW, and Smith Orchards

FRIMA \$28,092

Match “\$15,127

Total \$43,219

Completed Yes

Washington



Project WDFW (Hat/Eng)- Soos Creek Hatchery Fish Ladder Phase I

Description The present pump intake is not compliant with state and federal approach velocity standards. The low-head intake dam is difficult for migrating adult Chinook to negotiate on low flows. Phase I of this project will involve completing design and securing all necessary permits.

Partners Pierce Conservation District and WDFW

FRIMA \$47,380

Match \$25,512

Total \$72,892

Completed No **Will be Completed** Yes

Washington



Project WDFW (Habitat)- Okanogan/Methow Inventory

Description WDFW will conduct a watershed based inventory of unscreened or inadequately screened water diversions in the Okanogan and Methow watersheds. All fish bearing streams were walked and all water diversion and other irrigation devices encountered were assessed and prioritized.

Partners WDFW

FRIMA \$117,034

Match \$63,019

Total \$180,053

Completed Yes

Washington



Project Walla Walla Conservation District- Walla Walla Screening

Description This project will install compliant fish screens on pump and gravity irrigation diversions in the Walla Walla River Basin.

Partners Walla Walla Conservation District, individual land owners and WDFW

FRIMA \$280,128

Match \$127,500

Total \$407,628

Completed Yes

Washington



Project FWS- Toppenish National Wildlife Refuge Fishways and Fish Screens (phase 1)

Description This is the permitting and preliminary design phase of a series of 9 fish screens and fishways to be constructed on the Snake Creek, Lateral Creek and Toppenish Creek tributaries to the Yakima River within the Toppenish National Wildlife Refuge.

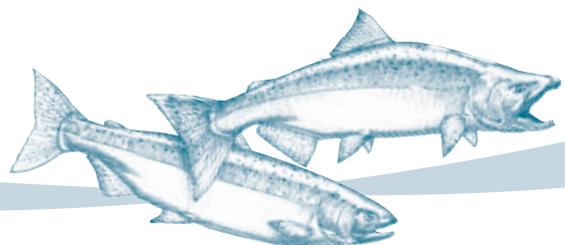
Partners North Yakima Conservation District, Toppenish NWR and WDFW

FRIMA \$18,850

Match \$808,150

Total \$827,000

Completed Yes



Washington



Project WDFW Lands Inventory 2

Description Inadequate screening conditions and associated fish passage barriers at diversions exist on WDFW-owned and managed lands. This project inventoried WDFW lands statewide to identify all diversions and associated passage structures. Screening and passage parameters were assessed at each site. Structures were prioritized for corrective actions based on fish presence, status of species present, correction cost, etc.

Partners WDFW

FRIMA \$97,940

Match \$53,748

Total \$151,688

Completed Yes

Washington



Project Soos Creek Pump Screen - Phase I: Design and Permitting

Description The present pump screen intake located in Soos Creek is not compliant with state and federal approach and sweep velocities standards. Annually, approximately 39% of the Soos Creek Hatchery origin fall Chinook returns are of wild origin (1990-97 range 26 to 45%; Tom Cropp, 2000). Significant numbers (up to 3500) of the adult Chinook are manually passed upstream to spawn naturally. Due to the value of the spawning and rearing habitat available above the intake, and the presence of naturally produced Chinook, this is classified as a high priority project. Phase I of this project will involve completing evaluation of screening and pumping options, final designs, and securing necessary project permits.

Partners WDFW

FRIMA \$121,697

Match \$65,529

Total \$187,226

Completed No **Will be Completed** Yes

Washington



Project Clallam Cline Screening

Description WDFW rehabilitated an existing fish screening facility with new materials and components.

Partners WDFW

FRIMA \$65,359

Match \$35,193

Total \$100,552

Completed Yes

Washington



Project Peshastin Creek Passage

Description This project will provide passage through an existing diversion dam for Peshastin Irrigation District. At low and moderate stream flows, passage of juvenile and adult salmon is limited due to excessive hydraulic drop and velocity across the diversion weir and shallow apron flow.

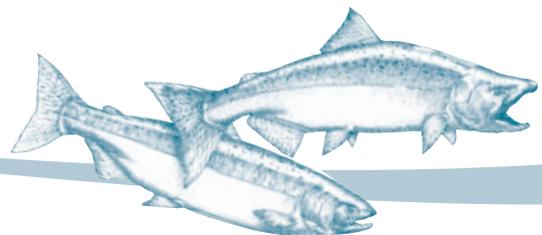
Partners Chelan County, Peshastin Irrigation District

FRIMA \$118,811

Match \$64,000

Total \$182,811

Completed No **Will be Completed** Yes



Washington



Project Middle Fork Nooksack Diversion Dam Passage

Description The city of Bellingham, Lummi Nation, the Nooksack Tribe and WDFW are pursuing removal of the passage problem caused by the Middle Fork Nooksack River diversion dam for municipal water supply. They have developed a feasible alternative for a fish ladder for the dam and are now developing a feasible alternative for an intake structure and removal of the present system.

Partners City of Bellingham, Nooksack Tribe, WDFW

FRIMA \$201,400

Match \$110,000

Total \$311,400

Completed No **Will be Completed** Yes



hington

Project FWS- Toppenish NWR Gamble Canal

Description Design, construct and install a rotary fish screen and bypass for the threatened Mid-Columbia Steelhead within the north fork of Toppenish Creek where it enters Toppenish National Wildlife Refuge. The project will help increase the survival of steelhead found in the creek and aid in the perpetuation of the species therein. The screen will aid in removing a false attractant for fish, aid the ability of the fish to bypass the diversion point of the creek, and allow the refuge to perform the management practices of the Refuge.

Partners WDFW Screen Shop, Toppenish National Wildlife Refuge

FRIMA \$147,550

Match \$79,450

Total \$227,000

Completed No **Will be Completed** Yes



hington

Project Toppenish Wetland Project #1, Unit 3A

Description Design, purchase and install a fish screen at diversion point from Snake Creek. Fish screen will enable steelhead to remain within Snake Creek. This will reduce entrapment of fish within 3A wetland unit.

Partners Toppenish NWR and WDFW

FRIMA \$47,450

Match \$25,550

Total \$73,000

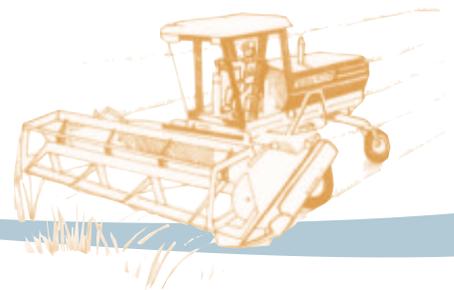
Completed No **Will be Completed** Yes

TOTAL

FRIMA \$2,238,265

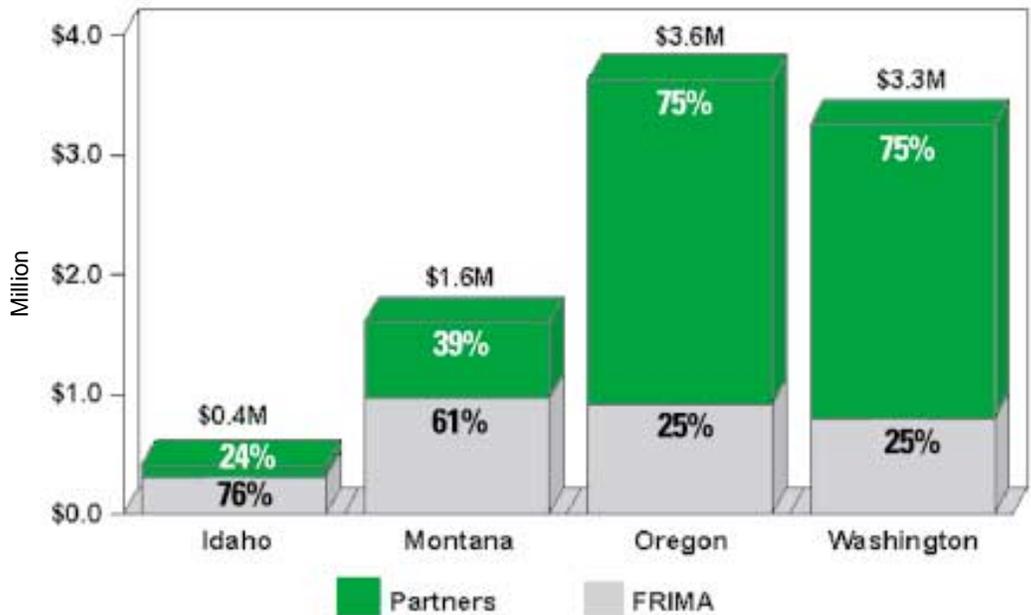
Match \$4,003,063

Total \$6,241,328



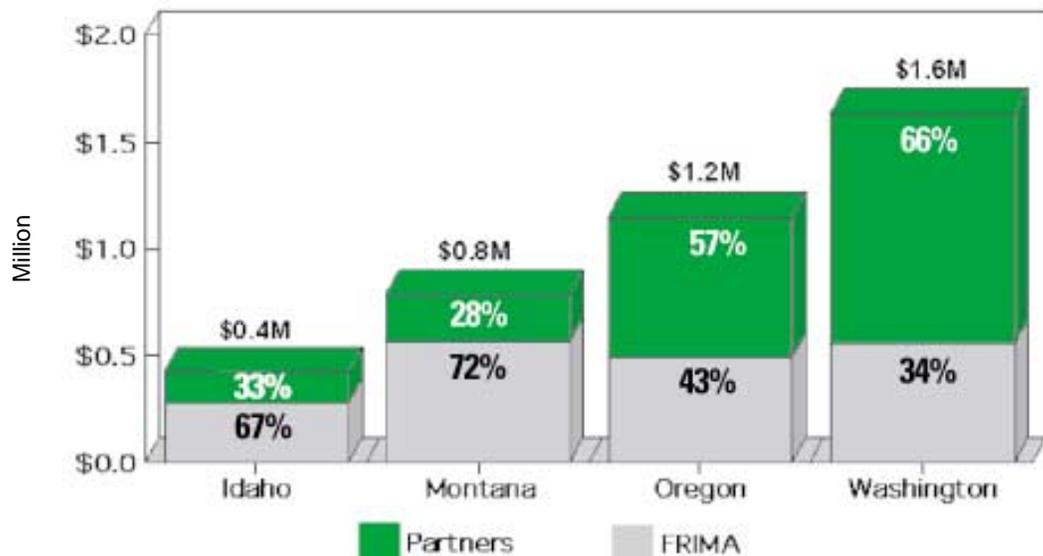
Appendix A - FRIMA Fiscal Charts

FY 2002 Total FRIMA Funding by State



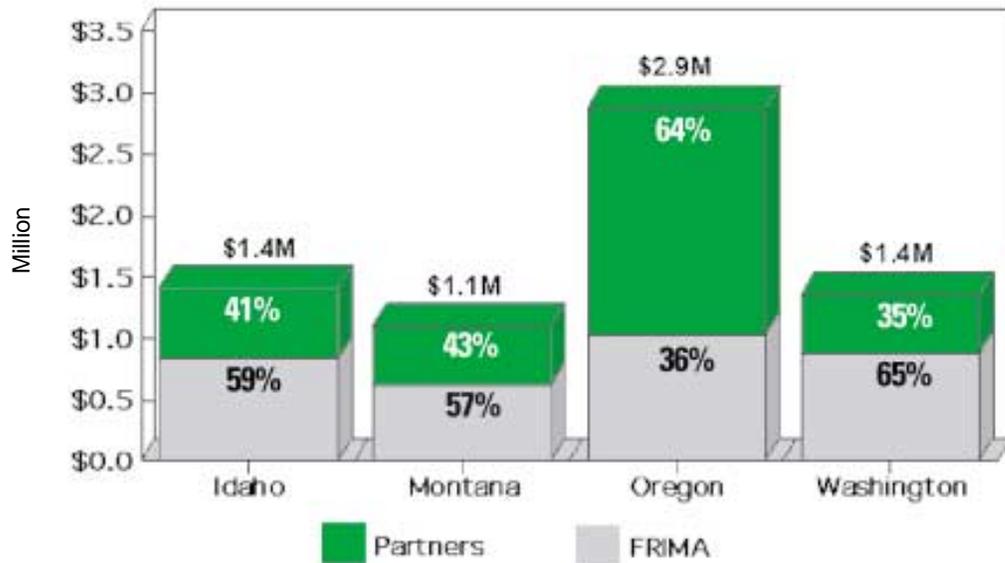
**Total FRIMA and Partners funding for FY 2002 equals \$8.9M.*

FY 2003 Total FRIMA Funding by State



**Total FRIMA and Partners funding for FY 2003 equals \$4.0M.*

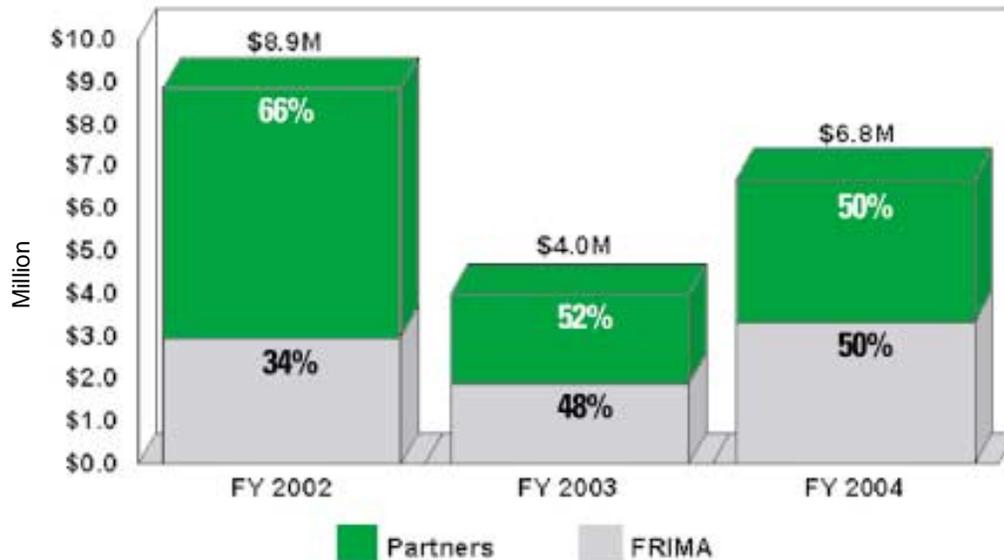
FY 2004 Total FRIMA Funding by State



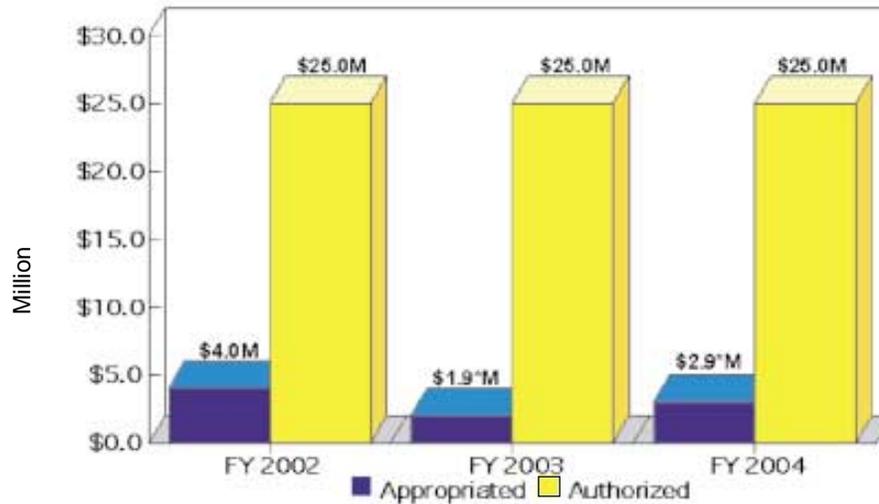
*Total FRIMA and Partners funding for FY 2004 equals \$6.8M.

Comparison of FRIMA v. Partners Cost Share Funding

(by Fiscal Year)

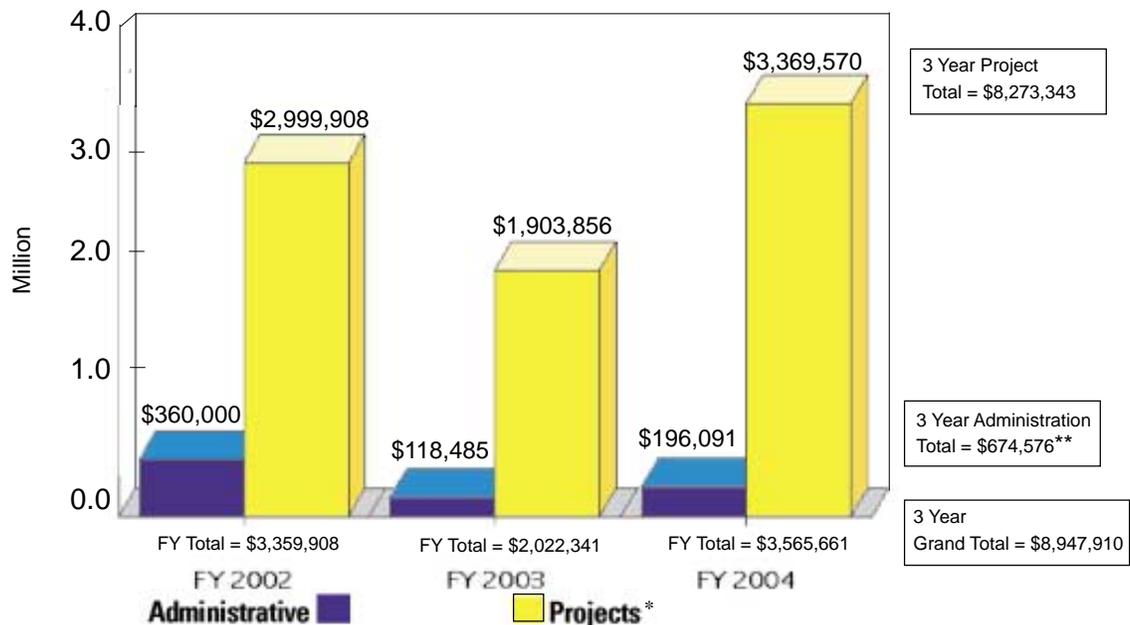


FY 2002 - 2004 FRIMA Funds Appropriated vs. Authorized



*Includes FY 2003 (.0066) and FY 2004 (.00645 and .0099) congressional rescissions.

FY 2002 - 2004 FRIMA Administrative Funds and Project Funds

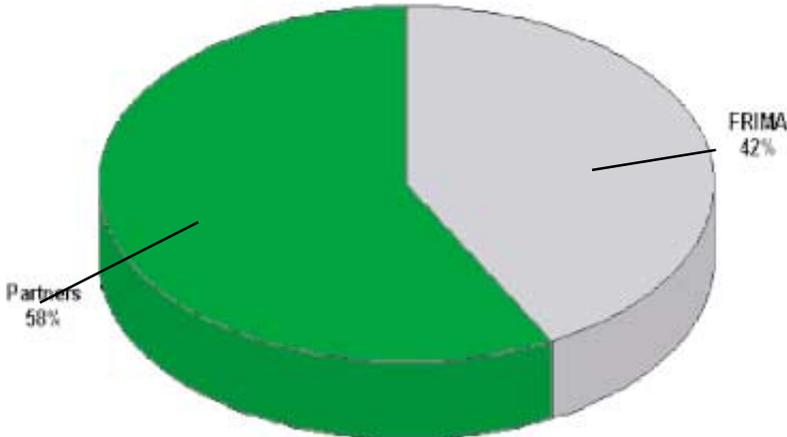


*Numbers are expressed as the fiscal year in which the dollars were committed to a project. In some cases FRIMA funds were committed to projects which later dropped out, such as for lack of partner share, and the uncommitted funds were carried over into another fiscal year and then committed to new projects. Committed is defined here as an administrative reservation of funds in anticipation of their obligation.

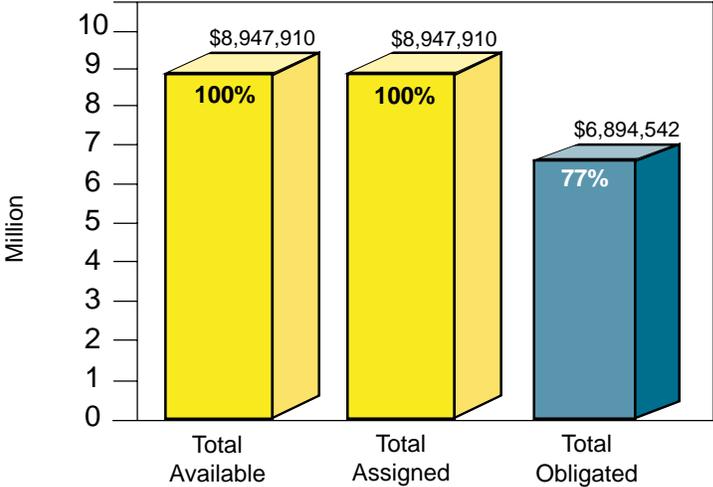
** On the surface, total dollars in the Administrative category will seem to, but have not, exceeded the 6% allowed by the FRIMA legislation. During the start-up of the FRIMA program, some support services requested by the states, e.g., pre-design analysis, were accounted for in the Administration account since there was no account for Miscellaneous Support/Technical Services charges. The states identified funds for projects should be reduced by a like amount to pay for the support/technical services they required.

Comparison of FRIMA v. Partners Cost Share Funding

FY 2002-2004 (Total = \$19.7 million)



Status of FRIMA FY 2002 -2004 Appropriated Funds





Appendix B - FRIMA Partners and Supporters

Idaho:

Governor of Idaho
16 private landowners (farmers and ranchers)
Idaho Association of Water Users Idaho Soil and
Water Conservation Districts

- Adams County
- Bear Lake County
- Lemhi County
- Custer County

Bear Lake Regional Commission
City of St. Charles
West Central Highlands Resource Conservation and
Development Council
Southwest Regional Advisory Committee
Adams County Commissioners
Water Users

- East Fork Ditch Company
- Middle Hornet Ditch Users
- Savage Ranch Water Users
- St. Charles Irrigation Company
- Thomas Fork Irrigating Company
- Thomas Fork Canal Company
- Bear Community Ditch

Trout Unlimited
Upper Salmon Basin Watershed Project
Idaho Department of Fish and Game
Idaho Office of Species Conservation
Idaho Soil Conservation Commission
U.S. Bureau of Land Management
U.S. Forest Service
U.S. Bureau of Reclamation

Montana:

Governor of Montana
21 private landowners (farmers and ranchers)
Confederated Salish-Kootenai Tribes
Montana Dept. of Natural Resources and Conservation
Bitterroot Conservation District
Lincoln County Conservation District
North Powell Conservation District
Lewis and Clark Conservation District
U.S. Natural Resources and Conservation Service
Bitterroot Chapter of Trout Unlimited
Big Blackfoot Chapter of Trout Unlimited
Montana Department of Fish, Wildlife and Parks
Butte-Silver Bow County
Beaverhead Deer Lodge National Forest
Glen Lake Irrigation District
Daly Ditches Irrigation District
Flathead Agency Irrigation Division
Lolo-Macaly Ditch water users
Bitter Root Water Forum

U.S. Bureau of Reclamation
Lolo National Forest
University of Montana
Montana State University
Flathead Joint Board of Control
Kootenai River Network
The Blackfoot Challenge
Two Creeks Ranch

Oregon:

Governor of Oregon
City of Salem
Medford Irrigation District
Rogue River Valley Irrigation District
Central Oregon Irrigation District
Tumalo Irrigation District
Lost and Boulder Ditch Improvement District
Eagle Point Irrigation District
Lakeshore Gardens Drainage District
Santiam Water Control District
City of Stayton
Oregon Department of Fish and Wildlife
Marion County Soil and Water Conservation District
Running Y Ranch
Jeld-Wen Timber and Ranches
Wocus Drainage District
Numerous private landowners

Washington:

Governor of Washington
Nooksack Tribe
Washington Department of Fish and Wildlife
State Salmon Recovery Funding Board
Pierce County
Cities of Tacoma and Bellingham
Covington Water District
Lakehaven Utility District
Cherry Valley Drainage District #7
Peshastin Irrigation District
Asotin County Conservation District
Columbia County Conservation District
King Conservation District
Benton County Conservation District
Pierce County Conservation District
Walla Walla County Conservation Dist
North Yakima Conservation District
Chelan County Conservation District
Washington Trout
Chelan County
Tapteal Greenway-Meadow Springs County Club
Smith Orchards
Toppenish National Wildlife Refuge
Numerous private landowners



Appendix C - Glossary of Terms

Anadromous Fish: fish which live in the ocean as adults but return to freshwater streams to spawn, such as salmon and steelhead trout.

Federal Cost-share: that portion of the costs of a project borne by the federal government.

Fish Barrier (Fish Passage Barrier): any obstacle that prevents fish from moving either upstream or downstream, usually refers to obstacles which have negative effects on fish, but also may refer to obstacles which are protective and have positive effects on fish, such as fish screens.

Fish Screens: devices that function to prevent fish from entering canals, irrigation ditches or pumps, etc.

Fish Passage Structures: includes fishways, fish ladders, fish bypasses, fish lifts, step pools, and cross-vanes structures which permit fish to move past barriers such as water diversions.

Fish Passage Projects: includes installation, modification or removal of fish passage devices and fish screens that are connected and/or related to a water diversion.

FRIMA: Fisheries Restoration and Irrigation Mitigation Act of 2000 (PL 106-502).

An Act established by Congress on November 13, 2000, that authorizes the Secretary of the Interior to establish a program to plan, design, and construct fish screens, fish passage devices, and related features to mitigate impacts on fisheries associated with water diversions by local governmental entities in the Pacific Ocean drainage of the states of Oregon, Washington, Montana, and Idaho.

In-kind Services: contributions or assistance in a form other than money such as equipment, materials, or services of recognized value that are offered in lieu of cash.

Inventories: the process of collecting data about objects or circumstances of interest, for example numbers, condition, and status of fish barriers and fish.

Irrigation Districts: a cooperative, self-governing public corporation set up as a subdivision of state government to obtain and distribute water for irrigation of lands within the district; created under the authority of a state legislature.

Listed Species: fish listed as threatened or endangered and under the protection of the Endangered Species Act.

Pacific Ocean Drainage Area: the area comprised of portions of the states of Oregon, Washington, Idaho and western Montana, from which water drains into the Pacific Ocean.

Program: the Fisheries Restoration and Irrigation Mitigation Program established by section 3(a) of Public Law 106-502 (Nov. 13, 2000).

Resident Fish: fish which spend their whole life cycle in fresh water, as opposed to anadromous fish which spend part of their life cycle in the ocean, such as salmon and steelhead trout.

Salmonid: belonging to the salmon family, Salmonidae, which includes salmon, trout, and whitefish.

Secretary: the Secretary of the Interior

Sustainable Agriculture: most definitions of sustainability include three “legs” – economic, environmental, and social (Washington State University); integrates three main goals— environmental health, economic profitability, and social and economic equity (University of California - Davis).

Sustainable Fisheries: an ecosystem-based, comprehensive, and coordinated plan that is developed cooperatively by affected interests; a comprehensive fisheries management strategy to ensure that populations are sustained and enhanced for future generations.

Water Diversion: the act of diverting water out of a river, stream, or other water body into canals or other conveyance structures for agricultural, municipal, and other purposes.

Water Diversion Structure: a structure that diverts water from a river, stream, or other water body into canals or other conveyance structures; a dam that partially blocks a river or stream to allow diversion of water.



Appendix D - FRIMA Legislation

Public Law 106–502
106th Congress

An Act

To authorize the Secretary of the Interior to establish a program to plan, design, and construct fish screens, fish passage devices, and related features to mitigate impacts on fisheries associated with irrigation system water diversions by local governmental entities in the Pacific Ocean drainage of the States of Oregon, Washington, Montana, and Idaho. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Fisheries Restoration and Irrigation Mitigation Act of 2000.”

SEC. 2. DEFINITIONS.

In this Act:

- (1) **PACIFIC OCEAN DRAINAGE AREA.**—The term “Pacific Ocean drainage area” means the area comprised of portions of the States of Oregon, Washington, Montana, and Idaho from which water drains into the Pacific Ocean.
- (2) **PROGRAM.**—The term “Program” means the Fisheries Restoration and Irrigation Mitigation Program established by section 3(a).
- (3) **SECRETARY.**—The term “Secretary” means the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service.

SEC. 3. ESTABLISHMENT OF THE PROGRAM.

- (a) **ESTABLISHMENT.**—There is established the Fisheries Restoration and Irrigation Mitigation Program within the Department of the Interior.
- (b) **GOALS.**—The goals of the Program are—
- (1) to decrease fish mortality associated with the withdrawal of water for irrigation and other purposes without impairing the continued withdrawal of water for those purposes; and
 - (2) to decrease the incidence of juvenile and adult fish entering water supply systems.

(c) IMPACTS ON FISHERIES.—

- (1) **IN GENERAL.**—Under the Program, the Secretary, in consultation with the heads of other appropriate agencies, shall develop and implement projects to mitigate impacts to fisheries resulting from the construction and operation of water diversions by local governmental entities (including soil and water conservation districts) in the Pacific Ocean drainage area.
- (2) **TYPES OF PROJECTS.**—Projects eligible under the Program may include—
- (A) the development, improvement, or installation of—
- (i) fish screens;
 - (ii) fish passage devices; and
 - (iii) other related features agreed to by non-Federal interests, relevant Federal and tribal agencies, and affected States; and
- (B) inventories by the States on the need and priority for projects described in clauses (i) through (iii).
- (3) **PRIORITY.**—The Secretary shall give priority to any project that has a total cost of less than \$5,000,000.

SEC. 4. PARTICIPATION IN THE PROGRAM.

- (a) **NON-FEDERAL.**—
- (1) **IN GENERAL.**—Non-Federal participation in the Program shall be voluntary.
- (2) **FEDERAL ACTION.**—The Secretary shall take no action that would result in any non-Federal entity being held financially responsible for any action under the Program, unless the entity applies to participate in the Program.
- (b) **FEDERAL.**—Development and implementation of projects under the Program on land or facilities owned by the United States shall be nonreimbursable Federal expenditures.

SEC. 5. EVALUATION AND PRIORITIZATION OF PROJECTS.

- Evaluation and prioritization of projects for development under the Program shall be conducted on the basis of—
- (1) benefits to fish species native to the project area, particularly to species that are listed as being, or considered by Federal or State authorities to be,

- endangered, threatened, or sensitive;
- (2) the size and type of water diversion;
- (3) the availability of other funding sources;
- (4) cost effectiveness; and
- (5) additional opportunities for biological or water delivery system benefits.

SEC. 6. ELIGIBILITY REQUIREMENTS.

(a) IN GENERAL.—A project carried out under the Program shall not be eligible for funding unless—

- (1) the project meets the requirements of the Secretary, as applicable, and any applicable State requirements; and
- (2) the project is agreed to by all Federal and non-Federal entities with authority and responsibility for the project.

(b) DETERMINATION OF ELIGIBILITY.—In determining the eligibility of a project under this Act, the Secretary shall—

- (1) consult with other Federal, State, tribal, and local agencies; and
- (2) make maximum use of all available data.

SEC. 7. COST SHARING.

(a) NON-FEDERAL SHARE.—The non-Federal share of the cost of development and implementation of any project under the Program on land or at a facility that is not owned by the United States shall be 35 percent.

(b) NON-FEDERAL CONTRIBUTIONS.—The non-Federal participants in any project under the Program on land or at a facility that is not owned by the United States shall provide all land, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the project.

(c) CREDIT FOR CONTRIBUTIONS.—The value of land, easements, rights-of-way, dredged material disposal areas, and relocations provided under subsection (b) for a project shall be credited toward the non-Federal share of the costs of the project.

(d) ADDITIONAL COSTS.—

(1) NON-FEDERAL RESPONSIBILITIES.—The non-Federal participants in any project carried out under the Program on land or at a facility that is not owned by the United States shall be responsible for all costs associated with operating, maintaining, repairing, rehabilitating, and replacing the project.

(2) FEDERAL RESPONSIBILITY.—The Federal Government shall be responsible for costs referred to in paragraph (1) for projects carried out on Federal land or at a Federal facility.

SEC. 8. LIMITATION ON ELIGIBILITY FOR FUNDING.

A project that receives funds under this Act shall be ineligible to receive Federal funds from any other source for the same purpose.

SEC. 9. REPORT.

On the expiration of the third fiscal year for which amounts are made available to carry out this Act, the Secretary shall submit to Congress a report describing—

- (1) the projects that have been completed under this Act;
- (2) the projects that will be completed with amounts made available under this Act during the remaining fiscal years for which amounts are authorized to be appropriated under section 10; and
- (3) recommended changes to the Program as a result of projects that have been carried out under this Act.

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There is authorized to be appropriated to carry out this Act \$25,000,000 for each of fiscal years 2001 through 2005.

(b) LIMITATIONS.—

(1) SINGLE STATE.—

(A) IN GENERAL.—Except as provided in subparagraph

(B), not more than 25 percent of the total amount of funds made available under this section may be used for one or more projects in any single State.

(B) WAIVER.—On notification to Congress, the Secretary may waive the limitation under subparagraph (A) if a State is unable to use the entire amount of funding made available to the State under this Act.

(2) ADMINISTRATIVE EXPENSES.—Not more than 6 percent of the funds authorized under this section for any fiscal year may be used for Federal administrative expenses of carrying out this Act.



Appendix E - Acronyms and Abbreviations

| | |
|--------|--|
| CD: | Conservation District |
| CR: | Creek |
| ESA: | Endangered Species Act |
| FRIMA: | Fisheries Restoration and Irrigation Mitigation Act |
| FS: | U.S. Forest Service |
| FWS: | U.S. Fish and Wildlife Service in the Department of Interior |
| GPRA | Government Performance Review Act |
| ID: | Irrigation District |
| ID: | Idaho |
| IDFG: | Idaho Department of Fish and Game |
| MFWP: | Montana Fish, Wildlife, and Parks |
| MT: | Montana |
| NRCS: | Natural Resources Conservation Service |
| NWR: | U.S. FWS National Wildlife Refuge |
| ODFW: | Oregon Department of Fish and Wildlife |
| RC&D: | Resource Conservation and Development Council |
| SWCD: | Soil and Water Conservation District |
| TU: | Trout Unlimited |
| USFWS: | U.S. Fish and Wildlife Service in the Department of Interior |
| WA: | Washington |
| WDFW: | Washington Department of Fish and Wildlife |

Fishery Resources / Regions 1 & 6
U.S. Fish and Wildlife Service

June 2005

