

**DECLARATION OF COOPERATION
FARMER'S IRRIGATION DISTRICT FISH SCREEN PROJECT
NOVEMBER 7, 2002**

Preface:

Growing demands for water for domestic, industrial, and agricultural use combined with the need to improve fish and wildlife species and habitat protection have focused attention on water diversion systems throughout the West and around the world. Over the last decade, the Farmers Irrigation District (FID or District) of Hood River, Oregon, has developed innovative methods for screening water diversion sites. The District is developing low approach velocity, horizontal screens with no moving parts. These systems greatly reduce operation and maintenance costs compared to conventional fish screening devices. A prototype of the first screen technology, currently called the "overshot screen", has demonstrated safe fish passage with no injuries. A full-scale installation of this screen is in testing phase on the Hood River. The second screen technology is an adaptation of the first and is currently called the "undershot screen". The undershot screen will be tested for fish protection and hydraulic integrity in the modeling phase next year.

FID has joined as a partner with Oregon Solutions, an organization that will assist in project management. The mission of Oregon Solutions is to develop solutions to local problems that support economic, environmental, and community objectives simultaneously through partnerships between government, business, and non-profit organizations. Oregon Solutions utilizes a collaborative approach that brings all stakeholders to the table, including permitting agencies, funders, and organizations offering technical assistance, to develop an integrated, community-based solution. In other communities this approach has helped to leverage investments, expedite the project, identify valuable partners, and elevate the visibility of the project. The final step of the Oregon Solutions process is for all partners to sign a declaration of cooperation or agreement that commits their time or resources to the project.

Project Description:

The project will be accomplished in three phases. First, NOAA Fisheries (formerly National Marine Fisheries Service) must give its approval of this experimental technology, if biological tests are favorable. The overshot screen technology at the Farmers Canal Hood River diversion is being tested this fall, 2002. Although NOAA Fisheries has been supportive through the experimental stage of the technology, approval of the first screen design is pending until construction and testing of the screen facility is completed. The second design and any future design developments are expected to be ongoing and will be tested and approved according to NOAA Fisheries criteria for approval. Second, the District will implement a three-tiered business structure to produce, market and install fish screens around Oregon and the West. In marketing the screen or selecting sites to construct the screens, it will be important to fit the hydraulic

requirements of the screen design to site-specific conditions (i.e. substantial flows). The business model will ensure that proceeds from screen development and construction are used to enhance sustainable agriculture and natural resource practices. The District will license its patent to Northwest Riverworks for marketing, design, and construction of the screens. Northwest Riverworks is a wholly owned subsidiary of Farmers Conservation Alliance (FCA). The net revenue from Northwest Riverworks will be transferred to a 501(c)(3) entity through which screen proceeds will be distributed to fund sustainability projects within the Farmers Irrigation District in the Hood River Valley.

Project Outline:

Organizational Structure

The Oregon Solutions team of businesses, non-profits, government agencies, and citizen groups is divided into 3 sub-teams: (1) Screen Technology; (2) Business Development and (3) Sustainability. A Steering Committee, comprised of two lead members of each sub-team and staff, will oversee and connect all aspects of the project.

Holly Coccoli of the Hood River Watershed Group is the convener of the entire process. She is supported by Abby White of Oregon Solutions. Project staff include: Robin Roberts, Regional Community Solutions Team Coordinator, Mary Mosier of FID, Todd Hilstad of FID, and Jerry Bryan of FID.

Phase I: Technology Development and Agency Approvals

Objective: to receive NOAA Fisheries approval for the overshot screen technology

Timeline: Summer 2002 through Summer 2003

Technology Team Members
Mick Jennings, Confederated Tribes of the Warm Springs (CTWS) – Co-chair
Ray Hartlerode, Oregon Department of Fish & Wildlife (ODFW) – Co-chair
Jim Stow or Larry Rasmussen, US Fish & Wildlife Service (USFWS)
Gary Asbridge, US Forest Service (USFS)
Bryan Nordlund or Melissa Jundt, NOAA Fisheries (a.k.a. National Marine Fisheries Service)
Robin Harris, FID engineering consultant
Richard Craven, FID fisheries consultant
Brian Hamilton, US Bureau of Reclamation (USBOR)
Peter Wu, Southern Oregon University
Bonneville Power Administration (BPA)
Brian Conners, Middle Fork Irrigation District
Rick Craiger, Oregon Watershed Enhancement Board (OWEB)

Tasks	Who	When	Signature
Develop and agree on an evaluation and	FID Bryan Nordlund or Melissa	December 15, 2002	

monitoring plan for the Hood River overshot screen	Jundt, NOAA Fisheries ODFW Mick Jennings, CTWS Jim Stow, USFWS		
Implement biological and hydraulic testing of the Hood River overshot screen	FID ODFW Mick Jennings, CTWS	Fall –Spring 2002/3	
Produce an evaluation report with site application criteria	FID	Spring 2003	
Submit comments and resolve any outstanding issues with screen performance and criteria	FID Bryan Nordlund or Melissa Jundt, NOAA Fisheries ODFW Mick Jennings, CTWS Jim Stow, USFWS	Summer 2003	
Decide on approval of overshot screen design along with the application criteria	Bryan Nordlund or Melissa Jundt, NOAA Fisheries Jim Stow or Larry Rasmussen, USFWS	Summer 2003	
Construct the undershot screen on Eliot Creek	Brian Conners, Middle Fork Irrigation District	Spring 2004	

Successes to date

Task	Who	When
Provided technical in-kind support of staff, encouragement, and successfully generated about \$740,000 in funding from BPA/Tribes	Mick Jennings, CTWS	Throughout the project
Provided fundraising and grant writing assistance, and helped to build community awareness	Holly Coccoli, Hood River Watershed Group	Throughout
Provided \$316,000 in grant funds and encouragement for the project	OWEB	Since 1999
Provided testing and assessment of the overshot	USBOR and Colorado State University	2000 and 2001

screen design		
Technical assistance for fish studies	ODFW	2000 and 2001
Committed to fund \$50,000 for the design and research of the undershot screen design to be constructed at Eliot Branch diversion	Middle Fork Irrigation District	2002
Provided \$700,000 in funding for construction, research and testing	BPA	Since 2000
Provided \$ 150,000 in funding	USFS	2002

Phase II

Objective: Develop and implement a business plan to market and produce the NOAA Fisheries approved screen.

Timeline: Fall 2002 through 2003

Business Development Team Members
Robin Harris, Anderson and Perry Engineering
Carolyn Sanco, Oregon Economic & Community Development (OECD)– Co-Chair
Richard Craven, Craven Consulting Group — Co-Chair
Jody Seaborn, Seaborn Engineering
John Benton, Northwest Riverworks Corporation (NRC)
Clark Seavert, OSU Extension / FCA Board Director
Guy Moser, Small Business Development Center (SBDC)
Mt. Hood Economic Alliance
Michael Benton, consultant

Tasks	Who	When	Signature
Write business plan outline and complete market research	Mary Mosier, FID/NRC Richard Craven Guy Moser, SBDC John Benton, NRC Tod Hilstad, FID/NRC	Fall-Winter 2002	
Seek business partnerships from ODFW and USBOR for screen production	Richard Craven Jerry Bryan, FID/NRC John Benton, NRC	Spring-Summer 2003	
Finalize a Mission	Mary Mosier, FID/NRC	Fall-Winter	

¹ Other resources: Brian Hamilton (USBOR), Ray Hartlerode (ODFW)

Statement for Northwest Riverworks Corporation	Jerry Bryan, FID/NRC Tod Hilstad, FID/NRC John Benton, NRW	2002	
Develop timelines and descriptions for first 7 projects	Richard Craven Tod Hilstad, FID/NRW John Benton, NRW	November 2002	
Complete a website	Mary Mosier, FID/NRW Clark Seavert, OSU Extension Guy Moser, SBDC Michael Benton, BC	December 2002	
Estimate revenue and expense projections	Tod Hilstad, FID/NRW Richard Craven John Benton, NRW	December 2002	
Identify 20 Oregon-based priority screening projects	Richard Craven Tod Hilstad, FID/NRW Jerry Bryan, FID/NRW John Benton, NRW ODFW	January 2003	
Prepare pro forma financial statements	Richard Craven Guy Moser, SBDC John Benton, NRC Tod Hilstad, FID/NRC	February 2003	
Finalize Business Plan	Mary Mosier, FID/NRW Guy Moser, SBDC John Benton, NRW	March 2003	

Successes To Date

Task	Who	When
Provided \$11,500 in funding for the business plan	Mt. Hood Economic Alliance	July 2002
Patent for fish screen published	FID	September 2002 (Patent to be issued Dec 2002, printed in March 2003)

Signatures on this Declaration of Cooperation:

Holly Loucos	Head River Watershed Group
Gregy Salun	Seabon Engineering
Tim Lunde	Fernier's Irrigation District
Myra	Columbia Gorge CE-SBDC
John Bente	NRC
Ray Hartlerode	ODFW
Mike Jensen	CTWSRO
Sally Ashby	USFS
Robin A. Roberts	Community Solutions
