



SCREEN SAVES fish and money

Proceeds from sales of the screens are invested in programs to benefit the common good.

by Geraldine Warner



A Farmers Screen test site on an 85-cfs diversion on the Hood River in Oregon.

The nonprofit Farmers Conservation Alliance, based in Hood River, Oregon, is selling a novel fish screen to farmers and using the proceeds for projects to benefit rural communities and farmers.

The fish screen that it sells was invented after a flood in the Hood River Valley caused massive damage to irrigation systems. The Farmers Irrigation District lost its entire infrastructure, including its fish screens, which were the rotary drum type. After the flood, it decided to design a new type of fish screen that would be self-cleaning, have no moving parts, and would be safe for fish at all life stages.

It took ten years and \$2.5 million to develop what the district calls the Farmers Screen. The design was patented, approved by state and federal agencies, and licensed to the nonprofit FCA with the charge of marketing the screen and investing all the profits into programs that benefit fish and farms.

The screen keeps fish and debris out of irrigation systems and, because it has no moving parts, requires no maintenance. Water flows through a flume and over a flat metal screen. The current moves quickly through a narrow chute and propels fish and debris across and beyond the screen. The screen is a metal plate with holes that allows water to pass through only slowly so that fish and debris are not pulled against the surface.

There must be a small change in elevation for this to work, said Genevieve Scholl-Erdmann, marketing manager at Farmers Conservation Alliance, though it does not need to be a steep slope.

Les Perkins, FCA's business development director, said the alliance has installed 16 screens in Oregon, Idaho, and Montana since it was founded in 2006. It plans to install 750 more in the next ten years. The screens have ranged in size from half a cubic foot per second for an individual farm diversion to a 160 cfs screen that is being installed for an irrigation district. Prices of the screens range from about \$15,000 to \$2 million.

Perkins figures that savings from not needing to maintain the screen or remove debris from the system can pay for the Farmers Screen within three to five years.

The prefabricated metal screens are made by Specialty Metal Fabricators in Portland, Oregon, and delivered ready to install. The Farmers Conservation Alliance can help with the installation, which takes one or two days. It can also help a farmer obtain the permits required before installing a screen. If an endangered species is in the stream or river, the permitting process can be daunting for a farmer who has no previous experience, Perkins said. Permits may be required from seven or eight agencies, and that can be a barrier to installing screens, even though they are providing a benefit to the environment.

FCA can also help farmers obtain cost-share funding. "Typically, the individual farmer is going to need some help knowing who to go to for funding," he said. "There's lots of funding out there; it's just a matter of finding what funding is appropriate for any particular site."

Scholl-Erdmann said there are about 150,000 unscreened diversions from streams and rivers in the Pacific Northwest, and she believes the Farmers Screen

could save farmers millions of dollars in screen maintenance or debris removal costs while also saving huge numbers of fish.

As well as selling the screens, the FCA works as a consultant with farmers and irrigation districts to help them improve irrigation efficiency.

Rural Roots

One of the projects funded by the proceeds of the fish screen and consulting work is Rural Roots, which aims to increase public awareness and recognition of rural leaders who are making a significant environmental and economic impact in their communities.

Particularly in the urban and legislative environments, people make inaccurate assumptions about farmers and those living in rural areas, Scholl-Erdmann said. They do not think of farmers as sources of innovation or new ideas

that actually could have a big financial impact on their particular industry, the environment, and the local economy. As part of the Rural Roots program, the FCA produced and distributed materials highlighting the efforts of Oregonians who are making environmental and economic contributions to their communities.

For its latest project, a book called *The Navigator: The Rural Oregon Guide to Saving Money by Saving Resources*, the FCA indexed tax credits offered by federal or state programs to improve energy efficiency on the farm or in the home and assessed how much it would cost to obtain the credits. It was published in May. ●

For more information check the Web sites: www.farmerscreen.org, www.fcasolutions.org, and www.rootofsustainability.org.

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