

FOREST STEWARDSHIP PROGRAM, LATAH DISTRICT TACKLE BIG BEAR WATERSHED RESTORATION

By Mary Fritz, Idaho Department of Lands

Forest health and water quality problems do not recognize fences or ownership boundaries. As a Private Forestry Specialist for the Idaho Department of Lands (IDL), Gary Hess sees this often when surveying timber and stream conditions on private landowner logging operations. Many landowners have timber stands in overstocked, unhealthy conditions from inadequate or improper management. In many cases, stream banks are devoid of trees and stabilizing vegetation. However, not too far away on the same stream might be a parcel of land exhibiting a Forest Stewardship sign.

Hess would like to see more landowners participate in the Forest Stewardship Program, administered by IDL, to learn how to manage their forest and water resources and be introduced to cost-share programs that can assist them in resolving forest health, wildfire risk and water quality issues on their property.

Non-industrial forest landowners' timber provides substantial public benefits in the form of clean water and air, yet many area landowners lack the knowledge, equipment or resources to manage in a way that enhances that contribution," he says.

Opportunity Spurs Cooperation

When IDL requested project proposals for the Landscape Scale Restoration grant to improve forest and water resources, Hess turned to the folks best known for watershed restoration in Latah County - the Latah Soil and Water Conservation District (Latah SWCD). It was a natural fit: the district could do in-stream restoration work and IDL could promote planning and forest management in the upland forest.

IDL and Latah SWCD collaborated on a proposal by incorporating their working relationships with Idaho Office of Species



Landowners are signing on to restore forests, meadows, and more.

Conservation (IOSC), Idaho Department of Environmental Quality (IDEQ) and the Bonneville Power Administration (BPA) to identify critical steelhead habitat inside the Palouse Priority Landscape. This priority landscape was identified in Idaho's Forest Action Plan.

Funds were awarded for the Big Bear Watershed Restoration Project (BBWRP) in 2012 and the Latah SWCD took on the role of project administrator. "This project would not be possible without the assistance of the Latah SWCD. They stepped up to the plate in developing and administer-

RESTORATION, *cont. from Pg. 1*

ing this project,” said Mary Fritz, IDL Forest Stewardship Program Manager.

The Latah SWCD brought critical resources and leveraged funds from BPA, the Snake River Basin Adjudication program (SRBA) managed by the US Fish and Wildlife/IOSC, and the Clean Water Act §319 funds managed by the US Environmental Protection Agency/IDEQ to improve critical steelhead habitat within the watershed.

The objective of BBWRP is to incentivize landowners as a collective group to accomplish forest-health related best management practices (BMP) across property boundaries in the most critical parts of the watershed. Northwest Management Inc. of Moscow, ID was contracted to develop individual landowner Forest Stewardship Plans. In exchange for the plan, landowners agreed to participate in the Forest Stewardship Program and to complete at least one recommended and cost-shared practice.

The professionally developed Forest Stewardship Plans incorporate individual landowner objectives with recommended best management practices to improve forest health and associated water quality benefits. Landowner plans and forest improvement practices are provided through the Landscape Scale Restoration grant, funded by the US Forest Service State and Private Forestry Program and administered by IDL.

Stream channel restoration work to restore Big Bear Creek fisheries habitat and water quality originates with funding to



Latah SWCD from numerous state and federal partners.

Partners on the project have been working directly and indirectly over the past several years to take advantage of wild steelhead fisheries surveys conducted by Idaho Fish and Game (IDFG) throughout the Potlatch River Basin.

Progress

To date, ten landowner plans covering 1,900 acres and incorporating 4.6 miles of fish-bearing stream have been submitted to IDL for inclusion in the Forest Stewardship Program.

Another 270 acres with nearly 1.5 miles of stream have been identified to expand efforts and link restoration in the watershed. This will directly connect 3,160 acres encompassing 10.5 miles of fish-bearing stream on non-industrial private forest land, agricultural land and fish habitat under Forest Stewardship guidance. Further, aside from a few unconnected parcels, it geographically links this populated part of the watershed to another 30,000 acres of unpopulated headwater forest under industrial, state and federal land management.

The IDL forest managers have also engaged in cooperative efforts with the Latah SWCD to replace a number of culverts on state endowment lands with bridges or stream channel simulating culverts to promote migration of steelhead in Schwartz Creek - a Big Bear Creek tributary.

The process is underway to prioritize which forest BMP's will be initially funded based on how well they contribute to the forest health objectives and align with stream channel and bank restoration recommendations in the Latah SWCD's compan-



Landowners and IDL staff discuss progress in the Big Bear Watershed.

ion Potlatch River Watershed Management Plan.

Landowners have been encouraged to help each other either by trading labor, tools or supplies to demonstrate contribution for their own practices. Together, they have the opportunity to improve forest stands that cross ownership boundaries, thus making a difference on the landscape. This type of landscape treatment is encouraged as it provides a way to make a greater positive impact within a watershed. Cooperative efforts such as these are becoming more prevalent across federal, state, tribal and private ownerships.

For additional project information contact: Jason J Marchinek, Resource Conservation Planner, Latah Soil and Water Conservation District, 220 E 5th Street, Suite 208, Moscow, ID 83843, (208) 874-3788

For information on Idaho's Forest Action Plan, Forest Stewardship Program and the Landscape Scale Restoration Grants go to IDL's web site <http://www.idl.idaho.gov/> or contact Mary Fritz, mfritz@idl.idaho.gov, phone: 208-666-8667. □

PIPELINE TO REDUCE PUMPING, OFFER MORE RELIABLE WATER SUPPLY TO FARMERS

By Steve Stuebner

Construction contractors worked “fast and furious” over the winter months to build 19 miles of pipeline and a new water-pumping station next to the Milner Pool to convert 1,500 acres of farm land in Minidoka County that had been served with ground water to surface water this growing season.

Officials with the A&B Irrigation District and the Natural Resources Conservation Service briefed the Idaho Water Resource Board about the project at its March 18th meeting in Boise. Water Board members were impressed with how quickly the A&B District was able to complete the project -- just in time for the 2016 irrigation season.

Water Board Member Vince Alberdi of Kimberly noted that he toured the project last week, and he was impressed with the results. “You did a great job,” Alberdi told A&B and NRCS officials.

Added Jeff Raybould, Water Board member from the Rexburg area, “My hat’s off to you. That’s pretty incredible to get the project done that quickly.”

In the Water Board briefing, A&B District Manager Dan Temple said contractors worked at “lightning speed” to get the pipeline and pumping plant built in only six months time. The project will serve 6,000 acres of farm land in Minidoka County north of the Snake River. Four-thousand, five-hundred acres in the project area already are served by surface water.

The NRCS has contributed \$3.8 million to the project by providing Farm Bill funds to 29 producers in the A&B District. The NRCS has provided several years of technical assistance for the project engineering and design. “NRCS brought a significant amount of in-kind dollars to the table with project engineering and management,” said Bruce Sandoval, state conservation engineer for NRCS.

“NRCS’s in-kind services for engineering and design saved the A&B District approximately one million dollars,” Temple added.

The Water Board has provided a \$7 mil-



Pipe to be used in A&B Pipeline’s ESPA project.

lion loan to the A&B District to cover the cost of the pipeline and pumping station, and the district’s water users have passed a \$7 million bond to cover the costs of the loan, Temple said.

The project was more complex than usual because the Bureau of Reclamation is expected to take over ownership of the pumping plant, so that meant the project had to be built to higher federal standards, meaning a federal environmental analysis was required and construction work had to meet federal guidelines. No new water rights were required.

The new pipeline is needed because ground water levels in the A&B District area have been dropping precipitously, Temple said. “Now we’re on the right path to get this situation turned around.”

Beyond a reduction in pumping from the Eastern Snake Plain Aquifer (ESPA), the project may have benefits for aquifer recharge, Temple said. The A&B district plans to drill injection wells in the project area to “recharge water back into the aquifer when water is available in the shoulder seasons,” he said.

Ground water levels have been dropping in the ESPA for several decades as farmers using ground water pumps take out more water from the aquifer than is being re-

turned to the aquifer via natural recharge sources and managed recharge efforts. Fish farms in the Hagerman area and surface water farmers with senior water rights also have been challenging the legality of farmers who have junior water rights pumping down the aquifer because it affects their water flows at Thousand Springs and other locations.

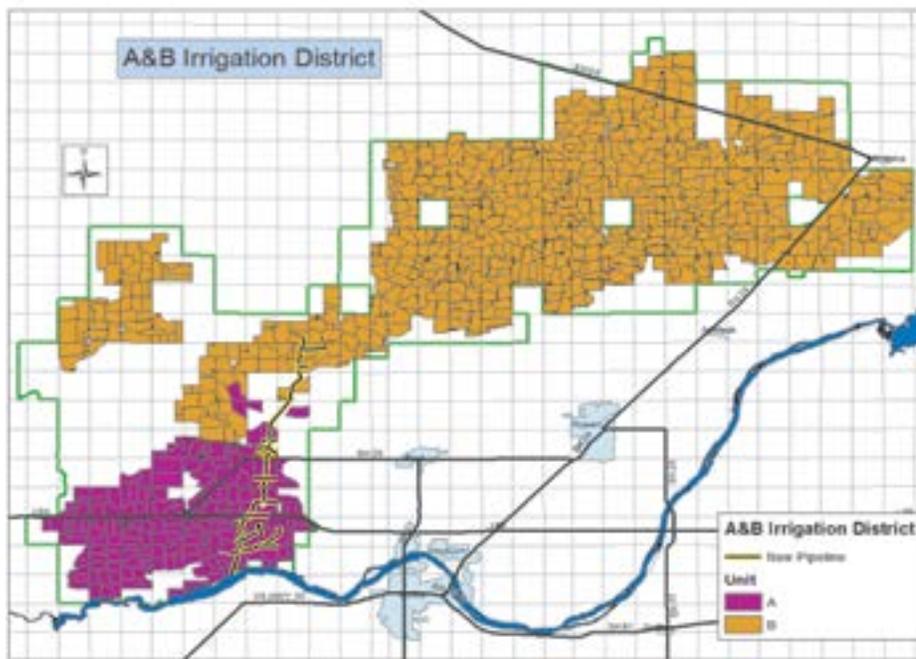
To remedy the legal issues, Scott Bedke, an Oakley rancher and speaker of the Idaho House of Representatives, mediated a settlement with ground water pumpers and surface water users that was finalized in December 2015. Under that agreement, pumpers will reduce ground water withdrawals from the ESPA by 240,000 acre-feet in the summer 2016 irrigation season.

In the meantime, the Water Board is implementing multiple strategies to increase recharge to the ESPA by 250,000 acre-feet over the long term, while also working on converting farm lands from ground water irrigation to surface water irrigation, working with local districts.

Background

The Bureau of Reclamation developed the North Side Pumping Division as part of the Minidoka Project in the 1950s and early 1960s. They developed Unit A, 15,900 acres, with a pumping station and surface

PIPELINE, *cont. from Pg. 3*



water irrigation from the Snake River, and Unit B, 66,700 acres, with 180 deep water wells. A&B Irrigation District entered into a repayment contract with the BOR and took over operations of the project in 1966.

The deep water wells were drilled in the 1950s, when the ESPA level was at an all-time high. After a period of time, the water levels decreased, reducing the production capacity of the project and farmers had less of a reliable supply. Several efforts to deepen the wells did not solve the problem, as the ESPA levels continued to decline. In the mid-1990s, the district was forced to abandon six of the ground water wells.

Eventually, the A&B district approached NRCS, the BOR and the Water Board about developing alternative sources of water to:

1. Restore or improve reliability of surface water delivery to approximately 4,500 acres of existing Unit A lands in Minidoka County.
2. Deliver surface water supplies, when available, to an additional 1,500 acres of Unit B land that are currently experiencing reduced ground water supply.

Overall, the goal of the project is to ensure provision of an adequate and reliable source of irrigation water to approximately 6,000 acres in the A&B District.

Looking at a project timeline, the NRCS was able to provide assistance to farmers under the Agricultural Water Enhancement Program (AWEP), made possible by an application by the Water Board to work on water conservation and conversion of farm ground irrigated with ground



WATER SETTLEMENT AGREEMENT RENEWS INTEREST IN CREP

CREP, a Farm Service Agency program created a decade ago to take marginal farm land out of production in the Snake River Plain area, is receiving more attention from farmers in light of the new water settlement agreement between ground water users and surface water users, said Chuck Pentzer, CREP coordinator for the Idaho Soil and Water Conservation Commission.

At the present time, there are 155 contracts enrolled in the Idaho Conservation Reserve Enhancement Program (CREP), covering 16,533 acres in the ESPA area, Pentzer said. Any acres enrolled in CREP reduces ground water irrigation use, which is part of the goal of the water settlement agreement.

“If we were to get an additional 33,000 acres enrolled in CREP, that would yield 67,000 acre-feet of savings -- that’s 27 percent of the overall goal,” Pentzer said, noting that ground water pumpers have to reduce use by 240,000 acre-feet this irrigation season under the agreement.

But FSA payments for idled cropland are not keeping pace with higher farm commodity prices, so if the federal agency would be willing to increase payments, they would get more farmers enrolled, Pentzer said. CREP rental payment prices run \$130 per acre, while average rents are running \$180 or more per acre, he said. “We’re about \$50 behind.”

The Idaho Ground Water Appropriators are supportive of more CREP enrollments, executive director Lynn Tominaga told the Water Board. “We’d like to get more people into the program,” he said. “We will contact our congressional delegation to support the fee increase.” □

water to surface water in the Minidoka County area. The NRCS contributed \$3.8 million to the project via this method to 29 producers in the A&B District. Later, when AWEP was phased out at the federal level, NRCS has been providing assistance through the Regional Conservation Partnership Program (RCCP).

PIPELINE, *cont. from Pg. 4*

“This pipeline is going to be a real benefit for lots of farmers,” said John Firth, chairman of the Minidoka SWCD. “It’s amazing how everyone has worked together on it.”

The Minidoka Soil and Water Conservation District helped A&B tie into the grant program provided by the Water Board to help fund the whole program. “They helped steer us toward the grant funding from the Water Board,” Temple said, adding that NRCS has been very helpful as well. “The NRCS was very willing to work with us and help us get that funding.”

The project will rely on existing storage water rights held by the A&B District. If those water rights run short in a low-water year, the district could rent water from the Water District No. 1 Rental Pool or lease water from other storage users, Temple said. If all that fails, the district could turn on the deep wells to provide water for farmers, he said.

From the new pumping station at Milner Pool to the northern-most aspect of the project, the pipeline will extend about 8.5 miles, Sandoval said. But there are many



Concrete pumping station on the A&B Pipeline project.

lateral trunk lines along the main line to serve various farms along the way. It takes 3,500 horsepower of pumping power to deliver the water to the farms in Minidoka County, or six, 500-horsepower pumps and two, 250 HP pumps. The peak flow will be about 110 cubic feet per second.

Building the pumping plant 10 feet below Milner Pool was challenging, Sandoval said, because that required a “major dewatering effort” at the construction site before the work could begin. And the pipeline engineering was challenging to design different pipe sizes for different volumes of water and locations. Pipeline diameters start at 54 inches in diameter at the pumping station, reduce to 48 inches about one and a half miles away, then reduce further to smaller sizes as the pipeline proceeds north under the interstate, the highway, and the railroad.

The design, construction and installation of large-diameter PVC pipe was tricky in cold weather, Sandoval said. “We’ve faced these issues before but not with this large of pipe. A major challenge was backfill type (sand, gravel, etc) and its placement and compaction in and around the large-diameter pipe in winter conditions. Testing and confirmation of design assumptions regarding strength and stiffness of the backfill was also a daunting challenge,” he said.

As of the week of March 21st, the A&B District was testing the pipeline for irrigation use. “We’ve got a few leaks, but that’s expected,” Temple said. “All systems are go.”



Steve Stuebner is a regular contributor to Conservation the Idaho Way, writing about voluntary conservation success stories.

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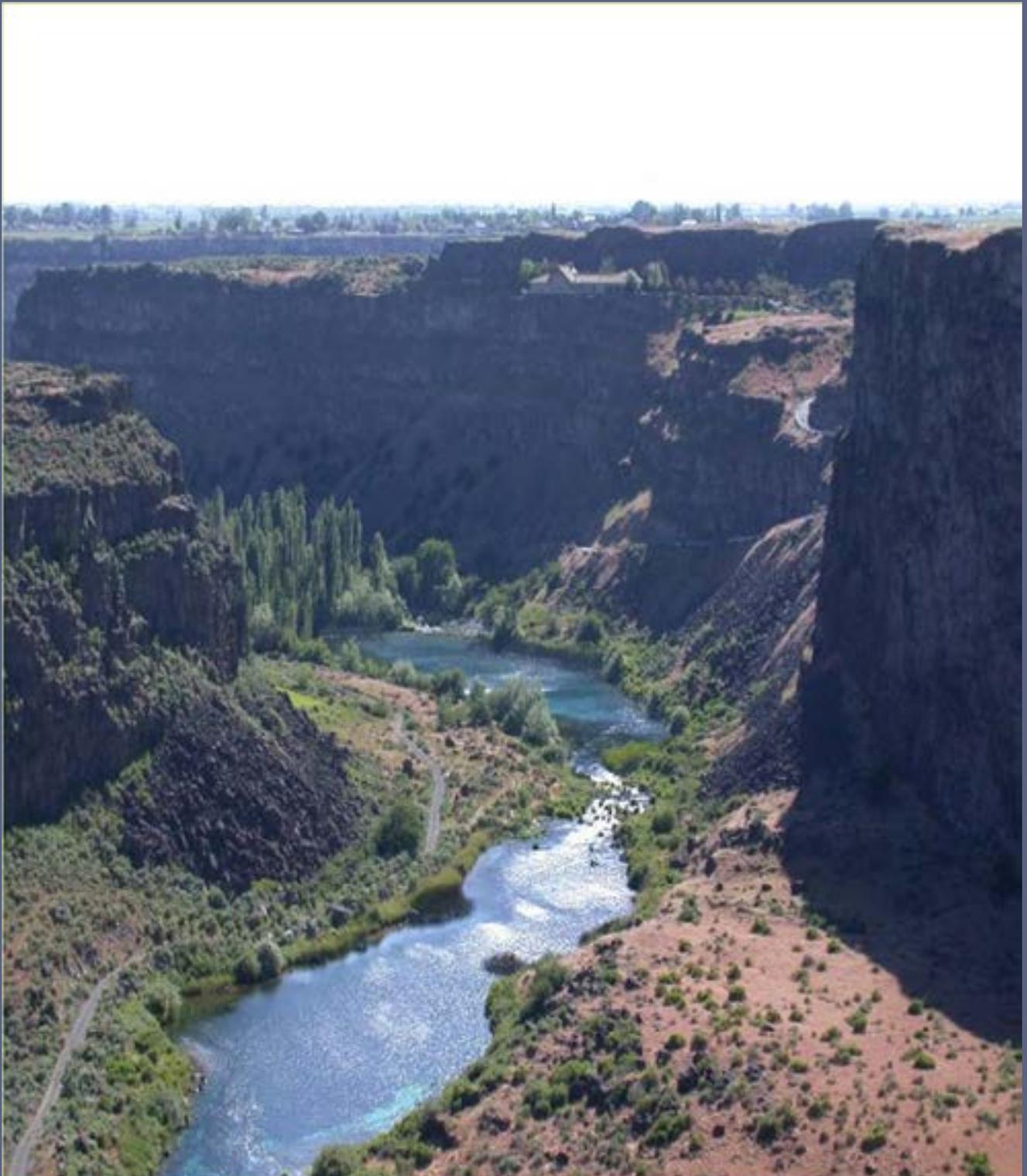
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