



PARTNERS IMPROVE RAFT RIVER WATER QUALITY, HABITAT

Over 10 years ago, water quality monitoring data showed that the Raft River, a tributary of the Snake River, needed attention. Raft River flows from its headwaters in Utah more than 75 miles through public grazing lands, private grazing lands, feedlots and crop fields to join the Snake in Cassia County. In 1994, Raft River was listed as a degraded water body in the state's list of Section 303(d) impaired waters. High levels of bacteria and sediment, low dissolved oxygen, and elevated temperatures were cited as issues that needed to be addressed.

The first major effort to improve the water quality in Raft River occurred in 1999-2000, when landowners worked with the Natural Resources Conservation Service (NRCS) and the East Cassia Soil and Water Conservation District. They worked on a wide array of projects funded by the Idaho Department of Environmental Quality via a \$281,333 water quality grant (included \$112,515 in local matching funds). It was called the Raft River Riparian and Watershed Demonstration Project.

At the time, landowners had expressed interest in making improvements to address water quality issues", said Carolyn Firth, agricultural water quality specialist for the Idaho Soil and Water Conservation Commission (SWCC). "One of the property owners had a feedlot corral located right on top of Raft River", she said. "Grant money allowed the feedlot corral to be moved to an upland area to stop direct water quality impacts."

Many other improvements occurred in subsequent years to stabilize the streambanks of the Raft River and its tributaries, install erosion-control best management practices (BMPs), and revegetate barren areas.

Between 1999 and 2008, specific improvements included:

- Replacing 24 nonfunctional diversion structures to improve management of irrigation water.
- Installing 41 rock drop structures to stabilize stream gradients.
- Installing 20 loose rock crossings to protect stream beds and banks.
- Anchoring trees into the sides of the stream bank for 3,297 feet and applying rock rip rap to stop stream bank erosion. Livestock access controls - 104,486 linear feet of fencing across 3,598 acres.
- Planting conservation cover crops on 18,574 acres of land, and willows on 12,000 feet of streambanks.
- Adopting contour farming practices on 5,426 acres of land.
- Installing 23 water and sediment control basins.
- Writing and adopting nutrient management plans for 5,980 acres of land.
- Removing approximately 43,600 acres of land from production through the Farm Service Agency's Conservation Reserve Program.

The SWCC played a key role in providing technical and financial assistance to help landowners convert from flood to sprinkler irrigation. This eliminated runoff from irrigation return flows into Raft River, a major factor in reducing bacterial sources.

In 2006, staff members from SWCC, the Idaho Association of Soil Conservation Districts, and the East Cassia SWCD worked together to develop the Raft River TMDL Implementation Plan. The Plan outlined an adaptive management approach for implementation of BMPs to reduce

sediment levels, bacteria and temperature. The TMDL plan identified potential pollution sources like confined animal feeding operations, and septic systems, as well as farming and grazing activities.

In the upland areas of the watershed, the U.S. Forest Service and Bureau of Land Management made improvements with cooperating cattle ranchers to install watering troughs, riparian fencing and other livestock-exclusion practices on federal lands to improve water quality.

Additional BMP improvements (including sprinkler conversions) were funded by a \$250,041 grant from the SWCC's Water Quality Program for Agriculture (WQPA) program, and included \$62,510 in local matching funds. Irrigation conversion projects were also funded by the NRCS Environmental Quality Incentives Program (EQIP).

BMP implementation efforts are helping to restore the Raft River. Water quality samples collected in the summers of 2010 and 2011 in an un-named tributary of Cottonwood Creek, a Raft River tributary stream, showed that bacteria levels ranged from 34.5 to 205 col/100 mL, well below the instantaneous water quality standard of 576 cfu/100 mL.

On the basis of these data, Idaho DEQ is proposing to remove bacteria impairment for a 19.1-mile section of Raft River from the 2012 list of impaired waters. Monitoring has not yet been completed in adjacent assessment units.

The Raft River restoration projects have been a highlight of Firth's career. "It's been my favorite conservation project," she says. "It took a lot of different agency partners, grant funding and willing landowners to install the best management practices in the watershed. I think the water quality of Raft River will continue to get better." □

STAFF PROFILE

CAROLYN FIRTH

Agricultural Program and Water Quality Specialist



Carolyn Firth

Our people are passionate about Idaho, Agriculture, and voluntary conservation. In short, they're what make things happen around here. This month we feature Carolyn Firth. An accomplished musician, Carolyn's also a real go-getter, a can-do conservationist, and highly valued member of our Leadership Team.
— Editor

Where do you live? Where is the ISWCC office where you work (what town?) I live on a farm near Heyburn, Idaho. My office is located in Burley, Idaho.

Briefly describe your job responsibilities. I focus on working with farmers and ranchers to help them implement conservation practices that improve ground water and surface water quality and enhance the sustainability of their operations. I do conservation planning on a watershed scale down to an individual farm or ranch. I'm also specifically tasked with overseeing statewide efforts to improve ground water quality.

What do you like about your job? I enjoy working one-on-one with farmers and ranchers, including those who serve on soil conservation district boards. They are some of the greatest people in the world.

It's very satisfying to be involved in a conservation project from start to finish and see improvements in the natural resources in conjunction with helping an agricultural operation run more efficiently and economically.

What are your passions in life? My family, geology, music and horses. I feel very strongly about using the natural resources we have been blessed with in a wise, sustainable manner, whether they are water, soil, minerals, petroleum, or other resources.

What is your favorite thing about Idaho? I grew up in Idaho, but have lived in Utah, Wyoming, and Texas before returning to Idaho. I love seeing the beautiful green fields in the summertime and being able to see such a great variety of scenery (mountains, deserts, forests) within a relatively short distance.

What's the favorite conservation project you've worked on for the commission? My favorite project I've worked on for the Commission is one which was funded by an EPA 319 grant, an ISWCC Water Quality Program for Agriculture (WQPA) grant, and an NRCS Environmental Quality Incentives Program (EQIP) grant in the Raft River Watershed of eastern Cassia County.

The Raft River in this area is on the list of water quality impaired streams for bacteria and other pollutants. Because of the work that was done on this section of the Raft River and tributaries that drain into it, this segment is being proposed for de-listing for bacteria. Monitoring has shown dramatic decreases in the bacterial load from samples taken during the period from 1999-2002 as compared to samples taken in 2010 and 2011.

This project involved about a dozen landowners and covered a 10-year time period.

Tell us about your family. I am married and have 3 adult sons, but no grandchildren yet. My husband farms and raises beef cattle. My oldest son works as an aeronautical engineer; my second-oldest son is a Certified Crop Advisor, and my youngest son is still in college.

If money were no object, what would you do to improve the farms, ranches or natural resources in your area? Even with an unlimited supply of money, there are no simple solutions to addressing the natural resource concerns in an area. However, if I could "fix" the problems within my area of responsibility, I would do two things:

1. Implement a major aquifer recharge program for the Eastern Snake Plain Aquifer, and
2. Make it possible for private water well owners and public water system operators who have problems with elevated nitrates in their ground water to implement measures to significantly decrease nitrate concentrations. □

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As part of SWCC's Capacity Building assistance to Districts, we still have 24 out of 80 district membership licenses left for Skillsoft. Skillsoft has an extensive online catalog of training videos and books available 24/7. Signing up is free and easy.

Call Jan (332-1790) or email her (jan.webster@swc.idaho.gov). She'll give you a user name and password and walk you through the steps to begin using Skillsoft right away. For more information on available trainings and books, go to [http://www.skillsoft.com/catalog/](http://www.skillsoft.com/catalog) and www.books24x7.com. □

Districts Receive Base and Capacity Building Funds

Districts should by now have received two checks in the mail: their base and capacity building allocations for FY 2014. SWCC mailed out \$433,500 in base allocations (\$8,500 per district under statute), and a separate check for \$875 to each district for capacity building activities (outreach, training, etc.) in FY 2014. In addition, SWCC distributed the following:

- State Forestry Contest \$1,500
- North Central Idaho Division II Grazing Conference \$1,000
- Ag Symposium \$1,500
- Skillsoft training licenses \$2,250

If your district has not received either check, please contact Delwyne Trefz at (208)896-4544. □

Deadline to submit Local Match Reports August 16

The deadline to submit districts' Local Match Reports - August 16th - is fast approaching. The deadline was moved up two weeks in order to submit accurate (vs. estimated) FY 2013 match amounts to the Division of Financial Management (DFM) and the Legislative Services Office by the 3rd of September for consideration in SWCC's FY 2015 Budget Request.

The Local Match Report covers the previous fiscal year from July 1 to June 30. Only funds which are on deposit in district accounts on June 30th can be included in the Report.

District Board certification of funds received and appropriate documentation are required. Once received and verified, the District Allocation Work Group must review each Report and recommend funding levels to the Commission at their next scheduled meeting.

In prior years updated information has not been available until November, too late for consideration and inclusion in the Governor's Budget Recommendation.

A template for Reports can be found on the Commission's website at www.swc.idaho.gov. □

TAWG Meets, Suggests Changes to Technical Assistance Allocation Process

Members of the statewide FY 2013 Technical Advisory Work Group (TAWG) and others met in July to discuss potential changes to the process for awarding technical assistance staff time.

Due to constrained staff time, SWCC began formally awarding technical assistance staff time to districts this year. FY 2013 TAWG members originally helped design the technical assistance allocation process adopted by Commissioners last September. Members had committed to reconvene after the first cycle to review the process and propose revisions based on experience gained.

Over a dozen people took part in the meeting, including some members of FY 2014 TAWGs and others. Eleven districts submitted written comments and suggestions.

A full summary of suggestions will be presented to SWCC at the August 8th meeting and emailed to districts. In the meantime, the most frequent comments and solutions suggested were:

- The process is too cumbersome. Simplify!
- Don't pit districts against districts by making them decide who gets what. SWCC team leaders could review requests, propose awards, and the FY 2014 TAWGs could review and propose changes, if necessary.
- Districts should submit requests for tasks - like engineering a culvert or writing a grant application - not whole projects due to limited SWCC time available.
- Districts should continue to submit assistance requests, but awarded time should be flexible and transferrable to other tasks if necessary as individual districts see fit.
- SWCC should develop guidelines on typical time it takes to accomplish tasks.
- SWCC should offer training on planning.

The FY 2014 TAWG will meet on Sunday, Nov. 17 in Boise (during IASCD Conference) to develop recommendations to present at SWCC's meeting later that week. □

CALENDAR

SWCC BOARD MEETING AUGUST 8 @ 8 AM, STATE CAPITOL, BOISE

- FY 2015 Budget Request
- FY 2013 Technical Assistance Work Group Review of Process, Recommendations
- New Communication Tools Presentation
- SWCC Performance Measures Report, and more

DID YOU KNOW?

Since 1999, the conservation partnership has sown seeds of stewardship amounting to over \$30.5 million worth of projects benefitting water quality in Idaho! Contributions included:

- \$11.7 million from landowners
- \$13.1 million from SWCC (State Agricultural Water Quality Program, Water Quality Protection for Agriculture programs), and
- \$5.8 million from other sources (NRCS' EQIP, Small Watershed, 319, etc.)

Together, we've treated a total of 178,619 acres with various conservation practices and treated over 315,000 linear feet of riparian (along or near the banks of rivers) areas!



Cattle Crossing Before



Cattle Crossing After

DISTRICT SHOUT-OUTS



LEWIS SCD

Salute to the folks in Lewis County for showcasing Conservation the Idaho Way! Lewis County Soil Conservation Tour, Lewis County NRCS field office, and Lewis County Extension office hosted a cover crop tour on July 30th.

The cover crop demonstration plot was highlighted, along with speakers that told the story of the soil ecosystem and benefits of grazing the cover crop. Infiltration and Aggregate

Stability tests were done to show side by side comparisons of conventional till, no-till, cover crops.

Drew Leitch spoke to the group on why he volunteered his land and was experimenting with cover crops. His primary purpose was to extend his grazing season, while not overgrazing his existing pasture/range lands. Secondly, he was looking for a method to increase his pH to levels where he can grow crops like peas that are sensitive to iron and aluminum toxicity that occurs at low pH values. Great job, Lewis!

NEZ PERCE SWCD

Congratulations to the Nez Perce Soil and Water Conservation District (SWCD)! Their Lapwai Creek Anadromous Habitat funding proposal was found to "meet scientific review criteria" by the Northwest Power & Conservation Council's distinguished Independent Scientific Review Panel (ISRP).

That means Nez Perce's proposal will advance

for further consideration. Districts preparing grant applications might wish to use Nez Perce as a resource: theirs was one of 13 qualified proposals (out of 83) submitted for consideration for the Council's Fish and Wildlife Program.

The Panel commended Nez Perce, saying their proposal "provides excellent technical background information" demonstrating the significance of the project to regional programs, provides "excellent, detailed, photographic and quantitative description of accomplishments associated with each objective during the past 10 years or so".

Further, the ISRP stated, "Other proposals should take notice, as often [they] simply provide reference to project reports. This approach makes it easy for reviewers and stakeholders to see that this effort has been successful in past efforts", and provides "excellent benchmarks" with the proposed deliverables.

Well done, Nez Perce. You represent the conservation partnership admirably!

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