



FISH & GAME, DUCKS UNLIMITED RESTORE WETLANDS BY COCOLALLA LAKE

By Steve Stuebner

From time to time the Commission features a worthy collaborative project that we think qualifies as Conservation the Idaho Way despite the fact that we aren't involved! This is one of them. Kudos to the collaborative partners: a veritable alphabet soup of agencies and acronyms including IDFG, DU, DEQ, BPA, CLA, EPA, and BPA. If you want to know what they stand for, read on! -Ed.

On the southern end of Cocolalla Lake, a few miles south of Sandpoint, Fish Creek flows from a forested mountain on the west slope of the lake and pours into a beautiful, newly engineered wetland next to the lake, where fish and waterfowl are thriving.

Historically, the wetland property was used to raise cattle and grow pasture for livestock, but over time, the Idaho Department of Fish and Game has worked to acquire the private lands and enhance wildlife habitat in the area. In the late 1950s,

IDFG bought five acres at the mouth of Fish Creek. In the late 1990s, it bought 98 acres that had served as hay fields and grazing areas, and in 2010, the agency purchased 20 acres in the upper end of Fish Creek.

With more control of the property around the stream, IDFG officials decided to partner with Ducks Unlimited (DU) to do a full-scale wetland restoration project where Fish Creek flows into the wetlands area. The property is known as the Cocolalla Lake parcel of the Pend Oreille Wildlife Management Area (POWMA). The wetlands were choked with reed canary grass, an invasive species, and the stream course had been altered in a number of locations, including a portion of the stream that ran parallel to a railroad line and carried contaminants into the lake.

Old agricultural drains and diversions lowered the water table in the wetlands area, and the stream had become braided over time. IDFG and DU officials wanted to restore Fish Creek and the wetlands so it could filter sediment and other pollutants

flowing toward Cocolalla Lake, improve the stream course for a multitude of resident fish, and create quality habitat for waterfowl, amphibians and other critters.

The project received \$96,938 in funding in 2015 from a Section 319 water quality grant from the Idaho Department of Environmental Quality (DEQ) and U.S. Environmental Protection Agency. They also received funds from the Bonneville Power Administration, and provided matching funds for a total project cost of \$189,438. The funding would allow for restoring about 90 acres of the Fish Creek wetlands area and improving 1,025 linear feet of Fish Creek itself.

Construction occurred in late fall of 2015. The NRCS already had done a wetlands delineation report on the site. The contractor, Soggy Bottoms of Colville, Wash., excavated six shallow wetland areas. Six rock weirs were installed along the Fish Creek channel, and a 950-foot dike was constructed along with a water-control structure with two spillways to control

WETLANDS, cont. from Page 1

water flows in the wetlands. The reed canary grass was removed during the excavation of the wetlands area, and other areas that needed treatment were sprayed with an herbicide. Following the wetlands construction, the wetlands were re-seeded to natural vegetation to prevent the reed canary grass from spreading.

Everyone is pleased with the project results so far.

“We’re really happy with the project – it turned out real nice,” said Miles Benker, wildlife habitat biologist for IDFG. “The lack of open water areas was the most limiting factor for the wildlife requiring wetland habitat on this property. The project is going to benefit Cocolalla Lake, the diverse fish population in the lake, waterfowl, shore birds, amphibians and a wide variety of other wildlife species.”

Tina Blewett, regional biologist for DU in North Idaho and Eastern Washington, is pleased with the outcome of the project as well. She was the project manager. Blewett noted that after the restoration work occurred in late 2015, a big water runoff event occurred the following spring, blowing out a few of the improvements that were patched with some additional rockwork.

“We had a really big spring flood event that blew out the creek in a few areas and it jumped over an access road,” Blewett said. “You can’t predict these things but you



The same area in 2016 after construction.

have to be ready to respond. Aside from that, everything worked out perfectly.”

After the site was excavated and the reed canary grass removed, a pleasant surprise occurred. The dormant seed source of native wetlands vegetation germinated much better than expected, reducing the amount

of seeding and follow-up seeding that was required, officials said.

“The native plants sprouted like crazy,” Blewett said. “It may have been dormant for 50 years or more. It’s been amazing to see that. Pretty impressive!”

Some of those native species include sedges, rushes, bur-reed, and submerged and floating wetland plants such as smartweed and duckweed, Benker said.

The restored wetland is expected to produce solid water quality improvements for Fish Creek and Cocolalla Lake itself. The lake is listed on DEQ’s 2012 Integrated Report as not supporting cold-water aquatic life beneficial uses because of high levels of dissolved oxygen and total phosphorous. Nutrient pollution in the lake causes seasonal dissolved oxygen issues in the water column, and occasional blooms of blue-green algae.

Fish Creek, a tributary of the lake, contributes an estimated 10 percent of the phosphorous load and 24 percent of the sediment load into the lake. The restoration project is expected to reduce total sediment and nutrient loads by 532 tons, nitrogen by 2,507 pounds and phosphorous by 796 pounds.

“Water quality benefits include reduction of pollutants from the railroad ditch, decrease in sediment, temperature and nutrient load to Fish Creek and Cocolalla Lake,” Blewett said in the Section 319 grant final report. “It will also cool and extend perennial flow to Fish Creek, which is important for both fisheries and water quality. Wetland recharge from overbank flow of Fish Creek will filter and prevent transport of nutrients and sediment to Cocolalla Lake. Redirect-

ing flow of Fish Creek will also prevent railroad-associated pollutants from entering Cocolalla Lake.”

Thomas Heron, regional water quality manager for Idaho DEQ in Coeur d’Alene, said DEQ is pleased with the project outcome. “It has the potential to improve wa-



Prior to construction in 2015, this excavated area was choked with reed canarygrass.

ter quality in Cocolalla Lake because it will settle out sediment that would have gone into the lake,” he said. “I’m confident that there will be improvements. We toured it this fall, and it’s already delivering dividends.”

It’s positive that the wetlands-restoration project will help reduce the temperature of Cocolalla Lake. The name “Cocolalla” comes from a Coeur d’Alene tribal word describing water as “very cold,” according to Idaho Place Names by Lalia Boone.

Colder water in Fish Creek also will benefit native fish, including native west-slope cutthroat, says IDFG’s Benker. “The fish now have full access into the creek,” he said. “We’re trying to restore the riparian function of the creek and keep water in the stream.”

Cocolalla Lake also supports numerous warm-water species – it’s got the highest concentration of catfish in the state, and it contains perch, crappie and small-mouth bass. “It’s a very productive lake for fish,” Benker said. “It’s great to improve conditions for the fish.”

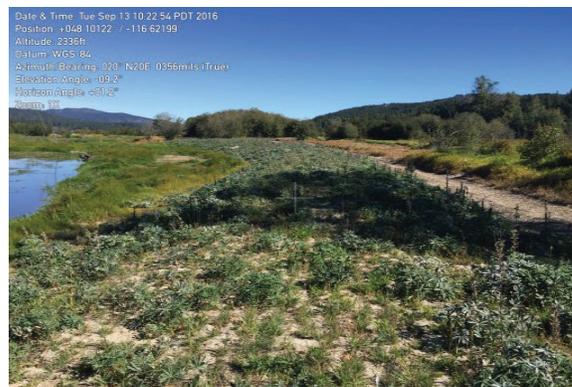
The project also benefits waterfowl, Blewett says. “We’re seeing those effects already; the birds are really coming back in there nicely.”

Wood ducks, pintails, mallards, wigeons, green-winged teal, cinnamon teal, and northern shovelers are using the wetlands, and shorebirds like spotted sandpipers, yellow-legged sandpipers and avocets have been seen there as well. The wetland could be used as nesting habitat in the spring, and brood-rearing habitat as the birds grow up.

WETLANDS, cont. from Page 2



Planting mound before (2015).



Planting mound after (2016).

DU took the lead as project manager because of their expertise in designing and engineering wetland-enhancement projects, Benker said.

“Our focus in Eastern Washington and North Idaho is in restoring bird habitat and wetlands,” Blewett says. “This project will benefit a ton of breeding birds and continental populations of waterfowl and habitat for their life cycle.”

DU has several in-house engineers who are available to help with designing wetland-enhancement projects, while IDFG’s engineers in Boise are overloaded with other tasks, Benker said. “DU has engineering expertise that’s really valuable to us.”

Bernie Kroiss, owner of Soggy Bottoms, a contractor that specializes in wetlands work for local soil and water conservation districts and DU, said the project went smooth, especially because Fish Creek stopped flowing for a time in late 2015 to allow heavy equipment operators to dig the wetland ponds. Ducks Unlimited took care of all the permitting work required.

Soggy Bottoms used an excavator and a dozer to dig the wetlands ponds and a large truck hauled away the excess material. The ponds were built to engineering standards in the restoration plan, creating deeper spots in some areas and shallower spots in others for a diversity of species.

“The project went rather well,” Kroiss said. “It’s nice to see all of that area opened up for fish and waterfowl.”

Benker sees the restored wetland area as an educational resource as well. Aided by outreach from a member of the Cocolalla

Lake Association (CLA), he took a group of second- and third-graders from Southside Elementary School on a tour of the wetlands project in October 2017. One of the key things that students learned on the trip is that “rushes are round and sedges have edges,” according to a front-page news article in the Sandpoint Daily Bee.

The students learned about the benefits of restoring a wetlands area that had become choked with reed canary grass, and how the property owners around the lake are enjoying a new amenity where they can take nature walks or go fishing in the summer or hunting in the fall.

Fred Vincent, president of CLA, said the organization has been working since the mid-1980s to reverse the eutrophication process occurring in Lake Cocolalla. The CLA’s efforts include annual stream walks whereby members collect bug samples that are categorized and sent off to a lab for analysis as a way of establishing the health of the streams feeding the lake.

Concurrently, CLA reached out to lakefront owners and neighboring farms to provide educational information of best land use practices along with guidance on federal programs giving grants to assist farmers in those endeavors, i.e fencing off cattle from riparian areas, etc. As a part of those efforts, the CLA has established close working relationships with many state and county agencies such as IDEQ, IDFG, Idaho Department of Agriculture, and Bonner County Soil and Water Conservation District, he said.

“Our lake management duties have grown due to the attention now being given to aquatic invasive plants,” Vincent said. “Community outreach remains our annual

goal. We were very pleased to have been a part of organizing the Southside Elementary tour with IDFG. We believe this tour will become an annual event and give every student the opportunity to gain a true understanding of how wetlands function to protect the lake’s water quality.”

Heron said CLA also will help monitor and track the water quality improvements in the lake. “I think it’s been a good project from everyone’s perspective,” he said. □

Steve Stuebner is a regular contributor to Conservation the Idaho Way.

**LOW INTEREST
CONSERVATION
LOANS**

Sprinkler Irrigation
No-Till Drills
Livestock Feeding Operations
Fences
Solar Stock Water
Pump Systems

**INTEREST RATES AS LOW
AS 2.5%**

TERMS 7 TO 15 YEARS


www.swc.idaho.gov • 208-332-1790

2017: DISTRICT-LED *Conservation the Idaho Way*

It's been a good year for voluntary conservation in Idaho. Here's just a partial list of what Idaho's conservation districts did in 2017. Good job, folks!

Wood River SWCD: Rented their No-Till Rangeland Drill to seed 500 acres of rangeland; worked with partners to re-seed, fence, and utilize herbaceous weed control on over 1,700 acres of private lands impacted by wildfire; completed Year One of a Variable Rate Irrigation project (mapping fields, installing water sensors, and relaying data) to conserve water; and conducted various education and outreach activities;

Ada SWCD: Provided soil education to 180 students; hosted 600 students from Boise, Kuna, and Meridian for 5th Grade Conservation Days; rented out a No-Till Drill; continued work on a Conservation Innovation Grant; studied how biocontrol agents can address cheat grass in the Boise Foothills; and made grants to several community partners engaged in on the ground conservation.

Teton SWCD: Promoted new No-Till Drill and cover crop practices; partnered to host an annual weed workshop; organized the Windbreak Tree Sale; participated in a Water Wise Week educational event for 6th grade students; educated students on soil health and its impacts on crops, and on the farm-to-plate connection between health food and healthy people.

Snake River SWCD: Initiated construction on the Stargazer Water Quality Project (6 acres of constructed wetlands to clean discharges of irrigation drains, reducing sediment loading by 853 tons a year); sponsored a poster contest for 150 4th, 5th, and 6th grade students; sponsored a speech contest for high school students; partnered with 22 cooperators, Balanced Rock SCD, and the Commission to collect deep soil samples to track nutrients including nitrates; conducted educational day for 3rd grade students; and sponsored a Pond Education Day for 5th graders.

Nez Perce SWCD: Installed a 1.8 mile riparian buffer; treated ½ acre of knotweed, 13 acres of orange hawkweed and treated 56 acres and installed 125 linear feet of bank stabilization; hosted watershed tour; partnered with Nez Perce County to replace the Mission Creek Bridge (and a flow gauge) and installed bank stabilization enhancements; planted trees on over 284 acres; collected stream and weather data at 51 stations; hosted over 600 5th and 6th graders at the 30th Annual Environmental Awareness Days; and implemented conservation BMPs to protect 1,657 acres from erosion.

Lemhi SWCD: • Installed 8 pivots and 5 Beaver Dam Analogues (BDA); removed culverts, created new stream channel, and installed a steel bridge; drilled a well and installed 7 freeze-proof watering troughs; moved a diversion and installed 2 new pivots and a pod system; consolidated 4 unscreened diversions into 1 screened structure, and installed 4 wheel lines; organized a poster contest for 70 sixth-grade students; and staffed an educational booth at the Lemhi County Fair.

Valley SWCD: Sponsored a Spring Forestry Tour for 40 participants; sponsored a team to the Idaho Envirothon (the students are active partners on the Strand Stabilization Project); hosted Mud Creek Sediment Reduction Monitoring Project for 5th graders; awarded Idaho Parks and Recreation Trails Program Grant to install a vault restroom at the Boulder Meadow Trailhead; coordinated (with partners) the emergency installation of bank stabilization materials below a dam, installing 3,000 willow stakes and 4 simulated beaver dams; provided seed money to design and produce bandanas for sale with noxious weed designs to increase awareness; and improved a fish passage .

Bonner SWCD: Increased invasive species boat inspections 15% in 2017 to 6,173 and increased sticker sales 27% over last year

to \$82,965; provided sponsorship to the 35th Idaho State Forestry Contest, hosting 446 students; sponsored Pend Oreille Water Festival for 440 5th graders - 53% achieved test score increases to above 80%, 61.5% achieved 100%; partnered to host annual Waterlife Discovery Center field trips with 300 students participating; and supported the wake zone education campaign "Avoid the Shore, Ride the Core" to educate boaters on the damage caused by large wakes.

Adams SWCD: Continued working on a multi-year 319-funded Upper Weiser River Restoration Project, installing riparian fence, rock barbs, and willow planting; co-sponsored the 8th annual Soil Health Symposium and the third annual Rangeland Skillathon; participated in Council FFA's resource field day for about 80 students; and helped with a bank stabilization project on the Weiser River.

Idaho SWCD: Partnered to replace 5 undersized culverts - opening up 7 miles of Steelhead habitat; sponsored a fuel reduction project on 133.6 acres within the 2015 Clearwater Complex Fire boundary; sponsored a fuel-reduction project on 20 privately-owned acres; partnered to re-shape 3 miles of road, re-stabilize it in 2 locations, and replace 6 culverts; and with partner, replaced 4 culverts and re-grade and re-graveled 3 miles on other roads.

Custer SWCD: Designed/installed bridge, fence, and stock watering facilities; conducted field surveys/design work on two miles of streams; sponsored poster contest for 55 students, annual 5th grade tour for 26 students, sponsored 2 teams to the State Envirothon, co-sponsored Ag Week for 220 students; sponsored Natural Resource Day with 180 students; completed Pole Creek stream reconnection project

We're ever-so-proud of the many accomplishments of all 50. Give your local district a call to learn what THEY did, and hear what's next. ☐

COMMISSION

H. Norman Wright, Chairman
Jerry Trebesch, Vice Chairman
Leon Slichter, Secretary
Dave Radford, Commissioner
Cathy Roemer, Commissioner
Teri Murrison, Administrator



SOIL & WATER
CONSERVATION COMMISSION

322 East Front Street, Suite 560 • Boise Idaho 83702 • P: 208-332-1790
F: 208-332-1799 • info@swc.idaho.gov • www.swc.idaho.gov

Conservation the Idaho Way: Sowing Seeds of Stewardship