Wasilla Soil & Water Conservation District

1700 E. Bogard Rd., Suite 203-A, Wasilla, AK 99654
(907) 357-4563 – Fax (907) 357-4564

NFHAP Restoration and Education Grant
Final Report April 2010 to July 2011

Restoration:

Cottonwood Creek Restoration May 2011

Teeland Middle School students (200 seventh graders over one week's work time) installed 60 linear bank feet of willow lift restoration techniques above and below the bike trail bridge maintained by the City of Wasilla at Cottonwood Creek, immediately downstream of the Parks Highway crossing. ATV traffic had damaged the banks, and the City of Wasilla has agreed to allow vehicle traffic to use the bike bridge. They also donated boulders and equipment to block off the restored salmon and trout stream crossing.

Jeff Heys of FWS instructed the students, directed their on-site work, and conducted several work crew sessions over each day to explain the fish habitat value of their streambank restoration labor. Many stream restorations are done with commercial contractors who use bobcats, backhoes, and excavation equipment. Jeff is the only FWS personnel to carry off a major fish habitat restoration effort with 200 thirteen-year-olds, armed only with shovels and five-gallon buckets for native plant restoration work. He carried to them his great enthusiasm and gave them scientific info on fish life. Jeff Heys provided the opportunity to get hands-on in habitat stewardship to so many young citizens, and he is an educator that I am honored to work with. Kudos to Jeff!!

Students placed coir logs, burlap and soil revetments, and dormant willow cuttings they had harvested themselves in March 2011 at the Plant Materials Center in Palmer, along a total of 70 linear feet of streambank restored at Cottonwood Creek. Native vegetation plugs of native grasses, wild geranium, bluebells, young willow trees, wild rose bushes, ferns, and dogwood flowers were transplanted from the nearby road right-of-way.

This is an extremely popular site with the public; it is behind a huge shopping mall complex and butts up along a large residential subdivision, with neighbors walking dogs, biking, running, kids exploring, etc. frequently at the site.

As of the final report in August, 2011, the revegetation is doing extremely well, and the boulders and temporary WSWCD signage is holding up okay. Access to the creek was created next to the bridge by placing flat rock steps next to the bridge at the natural footpath approach area. A similar design at Ship Creek in

Anchorage was our inspiration to provide habitat-friendly access. Again, the City of Wasilla was a tremendous help by donating the labor to do that.

Cottonwood Creek was named by the NFHAP Board as one of our United States National "Waters to Watch" in 2011! The designation is given for both: peril to water quality and dependent wildlife, and for great work by partners to restore and prevent further damages.

Cottonwood Creek Future Plans 2011-2012
The existing bridge at our bike-path restoration site has a very high metal fence railing on each side. Kids and adults have to climb up it to view the water of Cottonwood Creek directly. Mat-Su Borough had a FWS-paid Student Conservation Association (SCA) Intern for summer 2011, skilled in design work and landscape architecture. With FWS support, Intern Alex Salmins worked on a fish-friendly lower bridge design to complete the student restoration site work at Cottonwood Creek, with fish and wildlife art and interpretation for the public's understanding and enjoyment of this well-used trout spawning and salmon rearing area right within Wasilla City's busiest commercial district.

Two Rivers Teeland Middle School Project, Cottonwood Creek and Little Susitna River, student habitat assessment completed May 2011
Students (200) from Teeland Middle School spent two weeks studying the riparian, ecological, and hydrological systems of these two major Mat-Su community salmon and trout streams. One comes from glacial melt water, the other from groundwater springs. Both support salmon. They took measurements of juvenile fish species, stream insect life, riparian vegetation, water flow, and comparative human impacts at three sites on each waterway, then composed a powerpoint or video presentation comparing/contrasting the waterbodies and connecting baseline science data to the larger importance of their Restoration Project on Cottonwood Creek.

Hay Flats Refuge Restoration September 2010
Cottonwood Creek Elementary School held an estuary restoration day. 75 students transplanted local native sedges in the restoration site between the new lower parking area and the Cottonwood Slough footbridge. Three stations were: Restoration, Wetlands Soils & Plants Walk, and Fish Traps/Macroinvertebrates.

Teeland Middle School students (100) conducted sedge transplanting and habitat assessment to continue the Cottonwood Slough area restoration.

Restoration:
Upper Wasilla Creek, Moose Range monitoring 2011
No good news. Local community volunteers Bonnie and Dale Zirkle report that of 5 ATV bridge sites on salmon and trout rearing waters, 4 sites have been vandalized; two of them seriously damaged, with fencing and signs ripped out and large vehicle tire tracks completely smashing all revegetation efforts. "Monster Trucks" have completely destroyed site #2, a steep chute which was

repaired in 2009 and 2010, and apparently site #3 our first bridge and restoration site on the east side of the Matanuska Moose Range (State land currently under Forestry Use designation) area as well.

Matanuska Moose Range is a larger designation. The area we're working in is a smaller swath of well-recreated multi-use State land directly north of Palmer, Alaska, 6 miles by 3 miles approximately, and ringed by residential neighborhoods. It's between Palmer Fishhook Road and Buffalo Mine Road. Wasilla Creek's Upper Tributaries and thus salmonid rearing habitat in that sub-watershed start from the expansive wetlands and forested areas of the Moose Range in this area.

Plans to construct a "Site #6" bridge with this grant were cancelled. The existing 5 bridges aren't quite wide enough for recent increased size and use of "side by side" ATVs, and should be shored up in the future. Materials should be selected for use by all groups: small ATVs, horses, snow machines, dog mushers, and hikers.

Upper Wasilla Creek, Moose Range monitoring and improvements summer 2010

Restoration was conducted at 5 Moose Range ATV bridges crossings, with community volunteers and partner agency staff. The bridges were in good shape, and 2009 revegetation efforts were evaluated and enhanced with additional willow live stakes and locally transplanted native plant plugs. Fencing and signage were installed to prevent vehicle traffic through restored crossing areas.

Ongoing monitoring of the sites is conducted by community volunteers, who started the process of Borough Comprehensive Planning for the Buffalo Mine area in the summer. Trails and salmon habitat restoration will be an important topic in the Comp Plan.

Disappointingly, three of the five existing bridge crossing restoration sites were vandalized in July, 2011. WSWCD signage and fencing, and vegetation, were removed. "Site #2", a steep chute crossing, fared the worst with damage from a very large-tired vehicle.

Upper Wasilla Creek Future Plans 2011-2012

If restoration sites continue being damaged, there is no sense in continuing to spend money on revegetation until a better plan for maintaining the existing bridges and more comprehensive public education campaign on salmon rearing habitat is in place. ATV groups will be helpful, often volunteer to conduct community clean-ups, and would be a productive user group to team up with for education.

Wasilla Lake Restoration July 2010

Willow lift techniques were demonstrated along 100 feet of shoreline at popular Wasilla Lake Park, with help from Job Corps students, Upper Susitna SWCD

Youth Conservation Corps, City of Wasilla, Mat-Su Borough, Fish & Wildlife Service, Fish & Game, Friends of Mat-Su, and the Frontiersman newspaper. An interpretive sign and fencing were installed, and subsequently several thousand visitors have been able to see shoreline restoration and become educated on why shoreline vegetation is important to fish habitat.

Cottonwood Creek Stream Habitat Project April 2010
Teeland Middle School students (180) mapped the riparian zone at three sites, and looked at juvenile fish counts, macroinvertebrate life, and stream flow volume and velocity. This work was in preparation for restoration work in May 2010 at Schrock and Sushana sites on the Little Su, which was reported under a separate FWS Restoration (FWS#J024) grant project.

Coho Creek Field Assessment September 2010
Big Lake Elementary students (25) investigated Coho Creek with the landowner, including stations for Macroinvertebrates, Fish Traps, and Forest Ecology.

Elk Creek Fish Habitat Assessment October 2010
Several Homeschool families assisted a landowner to set fish traps, examine macroinvertebrate life, and investigate the Little Susitna Floodplain riparian vegetation and flood functions.

Little Susitna Watershed Function at Hatcher Pass September 2010
Teeland Middle School students (108) conducted a watershed function field trip, examining three sites on the upper Little Su, including wetlands and historical uses.

Fish traps:
Upper Wasilla Creek August 2010
Community volunteers assisted three days of sampling on Upper Wasilla Creek, testing several sites to determine fish presence for addition to the Anadromous Waterbodies Catalog. Chinook, Coho, and Dolly Varden were found and documented.

In Spring of 2011, This spring season, fish trapping of juvenile salmonids was confined to student field trips assessing habitat on Cottonwood Creek and the Little Susitna River. We documented Coho and Chinook Salmon, Dolly Varden in the Little Su, Rainbow Trout in Cottonwood Creek, and sticklebacks and sculpins in the slower waters of both creeks in April-May 2011. Of note were the spawning adult Rainbow Trout in mid-May in Cottonwood Creek right as we conducted our streambank willow plantings and restoration. The fish immediately swarmed to the replanted areas as students left a job well done, which was impressive for all of us.

Water Quality Monitoring:
CEMP Program ended in January 2011

Community volunteers conducted regular water quality sampling for 10 years, collecting baseline data on temperature, pH, turbidity, phosphates, nitrates, and dissolved oxygen. Wasilla SWCD set out to collect 5 years of baseline data, and funding has become increasingly difficult to find for volunteer monitor programs. We greatly appreciate that the current NFHAP grant from FWS could boost the end bit of this program, and the data from 1999 to 2010 on Cottonwood Creek, Wasilla Creek, McRoberts Creek, Bodenburg Creek, and the Little Susitna River are available to interested agencies and the public.

Report submitted August 31, 2011 by:

Catherine Inman
Program Manager
Wasilla SWCD
907-357-4563 x 106
catherine@wasillaswcd.org