

South Platte River Program Notes

by
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Capital Projects

Globeville Phase 3 Project

The South Platte River Capital Program has been very active this year on several fronts. Much effort was spent on the redesign of the Globeville Phase 3 project. This final phase of Denver's project should remove approximately 200 acres of highly urbanized land from the FEMA designated 100-year floodplain. The design is taking longer than expected because of the project's unusual complexity that includes many utility relocations, approval by a railroad company of a new railroad bridge, groundwater flows, keeping the diversions to the Burlington Ditch unobstructed and the railroad in service during construction and unusual geometry of the diversion structure and its headworks.

The Colorado State University Foothills Hydraulics Laboratory in Fort Collins completed physical model studies of the diversion structure and river modifications early in 2003. The findings of this study give us much confidence that the completed system will perform as designed. The only thing remaining is to put the finishing touches on the design, have Denver reach agreements with the ditch company and build it. To assist with this, in 2003, the District initiated an agreement with Denver to add another \$500,000 of District funds to the project fund.

Floodplain Acquisition

The District entered into another agreement with Adams County in its continuing efforts to acquire land within the South Platte River floodplain. Adams County and the District have jointly identified two parcels near McKay Road for acquisition. Once acquired the buildings and other materials will be removed and the land returned to a more natural state, creating new terrestrial wildlife habitat.

Zuni/Sun Valley Reach Project

Last year the District entered into an agreement with Denver to participate in

a U.S. Army Corps of Engineers project to provide environmental enhancements along the Zuni/Sun Valley reach of the South Platte River of the Upper Central Platte River Project. While the Corps has been doing the final design, Denver has pursued land acquisition for this project.

Unfortunately, the final design effort had to be halted in the middle of 2003 when the U.S. Congress failed to provide \$200,000 in their appropriations that was needed to complete the design. We are hopeful that this money will be appropriated in the 2004 budget. In addition, we are hopeful that Congress will also appropriate the \$10,000,000 to \$15,000,000 needed for the construction of this project in the 2005 budget. Regardless of the budgetary outcome, the District and Denver are committed to implementing this project and are continuing to acquire the needed land.

Maintenance Activities

Routine Maintenance

In 2003, South Platte River routine maintenance efforts included:

- 192 river miles (equivalent) of trash and debris pickup and removal
- 3.6 acres of string-trim mowing at access ramps and rest areas
- 78 miles (equivalent) of recreation/maintenance trail edge mowing
- 9.1 miles of tree pruning along the trail
- Approximately 190 truckloads of trash and debris were removed from the river and taken to landfills.

We have continued to add more areas of the South Platte River to our maintenance coverage. The ultimate goal will be coverage of the entire reach, from Chatfield Reservoir to 168th Avenue. Colorado Total Maintenance, Inc. was re-contracted to perform these services in 2003.

For the seventh consecutive year we participated in the Greenway Foundation's annual NIMBY (Not In

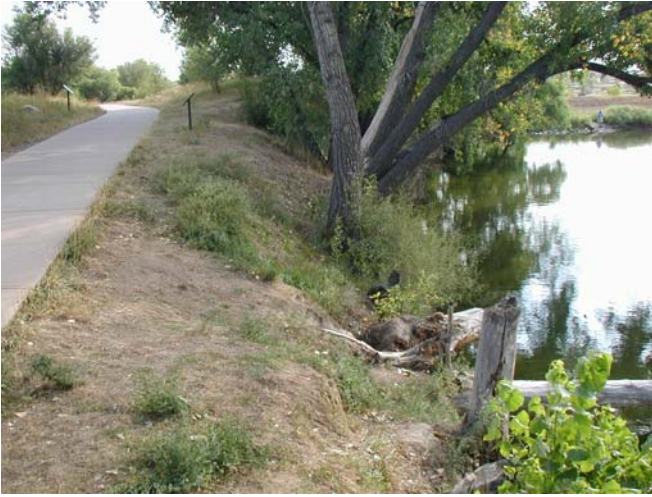
My Back Yard) Fest volunteer trash pickup, during which an additional 65 cubic yards of trash were removed. In addition, government personnel and volunteer groups have picked-up and removed trash from the river corridor throughout the year. Trash is also regularly removed from trash receptacles that are maintained by park personnel along all recreational trails.

Not only does our routine contractor remove lightweight debris, but also many heavier items such as 200 cubic yards of reinforced concrete pipe, heavy equipment tires and scrap metal. This effort has not only made the river more scenic but has also improved safety for recreational users. In many cases, recreational users are the ones to alert us to potential hazards, especially to boating. Based on calls we received, several large pieces of protruding metal were removed from the river by our contractor. Due to these efforts, the boatability of the South Platte River continues to improve.

Routine maintenance continues to be the most cost effective program in terms of environmental enhancement and public service. Without it, the trash along and in the river would accumulate tremendously, decreasing the enjoyment of the public as well as creating safety and sanitation issues. The routine maintenance program now completes more than twice the number of trash pickups and trail mowings along the South Platte River than we did 15 years ago. This has enhanced the environment along the river and helped increase the utilization of this corridor by the public.

Noxious Weed Management

We continue to be aggressive in controlling the many varieties of invasive vegetation that have taken hold along the river. Working closely with Adams County, the City and County of Denver, the City of Sheridan, and the South Suburban Parks and Recreation District, we have removed Tamarisk, Russian Olive and a variety of weeds through cutting and selective and



Overland Pond – Before. Note vertical bank erosion threatening mature trees and trail.



Overland Pond – After. Note vertical boulders protecting trees and trail.

careful application of herbicides when needed. This is followed by the plantings of Plains Cottonwood, Willow and various dry land grasses.

Restoration Maintenance

In 2003, the following restoration maintenance projects were completed:

- Enlarged the outlet structure of the Mann-Nyholt Lake to the South Platte River at the Adams County Regional Park at 129th Avenue.
- Construction underway for a new sloping grouted boulder grade control structure at approximately 116th Ave. in response to observed degradation.
- Constructed grouted boulder grade control structure at 16th Street in Denver; replacing an old concrete cutoff wall and a bunch of rubble.
- Constructed a boulder edge lining at Overland Pond in Denver to stabilize erosion that threatened the river maintenance/recreation trail and mature cottonwoods.
- Reconstructed the trail area at the 36th Street storm drain that had repeatedly been damaged by high velocity discharges at the outfall
- Provided design and construction funding assistance for bank stabilization work at the new Denver park at the South Platte/Cherry Creek confluence

The enlargement of the Mann-Nyholt lake outlet was a cooperative design and construction effort between the District, Adams County Parks, and the Riverdale Dunes Golf Course management. Mann-Nyholt Lake is the downstream terminus for Brantner Gulch. During minor rainstorms the lake elevation

would rise significantly, causing inundation of an adjacent fairway for several hours. The original outlet structure, a 24-inch pipe, was too small to adequately drain the lake in a timely fashion even during daily rainfall events. At the request of Adams County Parks, a new parallel 6'x3' concrete box culvert was constructed to adequately discharge at least 100 cubic feet per second before the lake's emergency spillway kicks in. The culvert entrance was constructed to include a weir to control the desired water surface elevation of the lake. A trash rack was installed on the inlet and a metal flap gate placed on the outlet to inhibit undesirable fish migration from the river to the fishing lake.

In 2004 we expect the program to include the following restorative maintenance projects:

- Extension of the river recreation trail northward under 104th Avenue jointly funded with Adams County
- Restoration and stabilization of west riverbank at the newly purchased Adams County open space property just north of 104th Avenue
- Several bank stabilization and restoration projects in Adams County, Thornton, and Littleton

Cooperative Projects with Private Property Owners

Cooperative projects are constructed on flowage and maintenance access easements dedicated to the District by private property owners adjacent to the river in exchange for river restoration

work. This year we obtained an additional 20 acres of easement area. To date over 650 acres of such easements have been dedicated, resulting in over 25 bank stabilization and/or river grade controls and riparian revegetation projects since 1988. Several of these easements now contain the river recreation trail, which doubles as river maintenance access.

Two new cooperative projects are underway this year. At 120th Ave in Adams County, we are in the process of constructing 1,200 feet of soil riprap bank rehabilitation and stabilization in cooperation with Asphalt Specialties Company. The second cooperative project underway this year is located along the west bank just upstream of 104th Avenue. Approximately 1200 feet of soil riprap bank rehabilitation and stabilization will be constructed on a 29-acre easement dedicated by Aggregate Industries.

Next year the McIntosh Farm Company property is scheduled to receive needed bank rehabilitation and stabilization along the west bank of the river. Left unstabilized, this bank will ultimately degrade to the point where it will disrupt dairy farm operations that have been in place for over 100 years. Last year the farm company dedicated 31 acres of riparian area in order to get District assistance along their property. This work should be completed in 2004.