

## Salt Valley Clean Lakes Project Benefits Area Lakes

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The Salt Valley Clean Lakes Project was initiated in 1993 in response to a 1990 Clean Lakes Study conducted by the Lower Platte South Natural Resources District in cooperation with the Nebraska Department of Environmental Quality (NDEQ), which found that nonpoint source pollution was impairing water quality in area lakes.

The Salt Valley Clean Lakes Project provided a staff person whose primary responsibility was to implement the following objectives:

- Increase public awareness of nonpoint source pollution and its impact on area lakes; and
- Encourage landowners in the watersheds above these lakes to adopt additional conservation and management practices that would reduce nonpoint source pollution.

Two watershed projects have been completed since the project was initiated, one above **Wildwood Lake** in northwestern Lancaster County and one above **Holmes Lake**. A third project in the watershed above **Olive Creek Lake** in southwestern Lancaster County is nearing completion and a community-based planning process was started last summer to develop a watershed management plan for the watershed above **Wagon Train Lake**. A similar process is planned for the watershed above **Yankee Hill Lake** sometime this year. In addition to those watersheds, smaller projects have also been completed in the watersheds above **Branched Oak Lake**, **Pawnee Lake** and **Meadowlark Lake**.

**THE WILDWOOD LAKE WATERSHED PROJECT** was started in 1991 and completed in

1997. The primary focus of the project was to work with individual landowners in the watershed to encourage them to install conservation measures to reduce sediment loading to the lake. By the time funding for the project expired, 16 landowners in the watershed had completed 22 different conservation projects at a total cost of more than \$233,000. As a result of their efforts, sediment loading to Wildwood Lake was reduced by 30 percent.

**THE HOLMES LAKE SUB-WATERSHED PROJECT** was started in 1995 and completed in 1999. The primary focus of the Holmes Lake Project was the construction of an eight-acre wetland complex along Antelope Creek just upstream from the lake and the renovation of an existing wetland/sediment trap. The projects were completed in 1996 at a total cost of \$444,172. Studies conducted by the NDEQ in 1996 and 1997 indicated that the wetland complex was effective at removing total suspended solids, total and dissolved phosphorus, kjeldahl nitrogen, and nitrate/nitrite nitrogen. In addition, the studies found that median concentrations of fecal coliform bacteria were 50 percent lower below the wetland complex than above while median concentrations of fecal streptococcus bacteria were 39 percent lower below the wetland.

**THE OLIVE CREEK LAKE WATERSHED PROJECT** was initiated in 1998 and is similar in focus and scope to the Wildwood Lake Project. To date,



The Antelope Commons Constructed Wetlands (above) was the centerpiece of the Holmes Lake Sub-

eight landowners in the watershed have completed 11 conservation projects at a total cost of \$119,636. In addition, at least three more projects have been approved for cost share assistance and should be completed this spring.

The Salt Valley Clean Lakes Project was a cooperative project involving the University of Nebraska Cooperative Extension, the Lower Platte South Natural Resources District, the Nebraska Department of Environmental Quality and the U.S. Environmental Protection Agency (EPA). It was funded by a Section 319 grant from EPA through the Nebraska Department of Environmental Quality. Other cooperating partners included the USDA Natural Resources Conservation Service, the USDA Farm Service Agency, the U.S. Army Corps of Engineers, the Nebraska Game



Water and sediment control basins (above) and sediment trapping/tile outlet terrace systems were the most popular practices installed by landowners in the Olive Creek Lake and Wildwood Lake watersheds.

and Parks Commission, the Nebraska Department of Natural Resources, the Departments of Biological Systems Engineering and Forestry, Fisheries and Wildlife at the University of Nebraska, the Lincoln-Lancaster County Health Department and the City of Lincoln Parks and Recreation Department.



This in-lake sediment and nutrient trap was installed above Wildwood Lake in December 1993 and provided a model for similar structures in Olive Creek Lake and Wagon Train Lake.

### In this issue...

-  **Horticulture** —page 2
-  **Environmental Focus** —page 3
-  **Farm Views** —page 4
-  **Urban Agriculture** —page 5
-  **Food & Fitness** —page 6
-  **Family Living** —page 7
-  **4-H & Youth** —pages 8-9
-  **Community Focus** —page 10

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