

CONSERVATION *Showcase*

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Natural Resources Conservation Service
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New Wetland to Improve Water Quality in West Lake

By Jason Johnson, March 2012

A newly created private wetland in Clarke County north of West Lake is now protecting this public drinking water source for the city of Osceola and other county residents.

Landowner John Aschenbrenner utilized a conservation practice called Wetland Creation to dam a 23-acre pool area on bottom ground along South Squaw Creek. The wetland collects water from 3,820 acres above it – nearly 60 percent of West Lake's 6,400-acre drainage area. The wetland will act like a water purification plant helping to remove chemicals and filter out sediment.

West Lake, perhaps best known as the home of Lakeside Casino, is listed on the Environmental Protection Agency's Section 303(d) List of Impaired Waters for low levels of dissolved oxygen and high levels of the corn herbicide Atrazine.

Along with improving water quality, wetlands provide wildlife habitat, prevent downstream flooding, protect biodiversity, and reduce sediment delivery.



John Aschenbrenner stands in front of his newly created wetland that will help to filter out sediment and farm chemicals before the water outlets to West Lake.



On the opposite side of the dam the wetland outlets to the South Squaw Creek which flows into West Lake. Water monitoring is planned, for water entering and flowing out of the wetland.

Aschenbrenner's new wetland is expected to trap about 5,000 tons of sediment each year. "This is a major project in protecting water quality in West Lake and in the entire watershed," said Dennis Schrod, district conservationist for USDA's Natural Resources Conservation Service (NRCS).

Aschenbrenner spent thousands of dollars of his own money for the project, but also utilized financial assistance through USDA's Environmental Quality Incentives Program (EQIP) – a voluntary program available to farmers offering financial and technical assistance to install or implement structural, vegetative and management practices on eligible agricultural land.

Aschenbrenner said the project would not have been completed without assistance from the South-

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ern Iowa Development and Conservation Authority (SIDCA) – a 10-county southern Iowa group that develops and coordinates plans for projects related to the unique natural resource, rural development, and infrastructure problems of counties in the most fragile areas of the southern Iowa drift plain.

Schrodt and Aschenbrenner are working with SIDCA to develop a monitoring program in the stream. “We want to test the water upstream before it enters the wetland, and then after it outlets back into the stream,” said Schrodt.

Land Use



John Aschenbrenner converted erosion-prone cropland to native grasses through the Conservation Reserve Program (CRP) in 2009 before completing his wetland creation project last fall.

Aschenbrenner purchased the property in 2006 with the intent on using much of it to graze his horses. “We decided soon after that it was just too far from my home in Urbandale,” he said.

More than 70 acres is still farmland used for growing corn and soybeans. But the area Aschenbrenner intended to convert to grazing (135 acres) he converted to native grasses through the Conservation Reserve Program (CRP) State Acres for Wildlife Enhancement (SAFE) initiative. SAFE is a voluntary program under CRP designed to address state and regional wildlife objectives.

“We plan to use this land mostly for recreation, like walking and hiking,” Aschenbrenner said. “I don’t

get down here as often as I’d like, but I really enjoy being down here.”

Aschenbrenner will be able to control wetland water levels with a stop log structure. He says the current pool level is about 14 inches below where he will eventually keep it. “I still have some seeding to do around the edges of the wetland,” he said. “It was a dry fall, so the wetland didn’t fill right away, but once we got a couple good rains it filled up fast.”

“The drainage area is so large for this wetland that John will have no problem keeping it filled with water,” said Schrodt.

Schrodt said Aschenbrenner is making good use of the land. “Previous owners were planning to build a golf course here with home development around it,” he said. “I am glad John bought this property.”

Jeff Zimprich, assistant state conservationist for NRCS in Atlantic, Iowa, says Aschenbrenner’s CRP ground and wetland combination is a great example of a landowner providing many off-the-farm benefits. “You really have to appreciate the contribution Mr. Aschenbrenner made in terms of land and personal dollars.”

For more information about conservation practices and programs to help protect the natural resources on your farm, visit your local NRCS office.



West Lake in Osceola may be best known as the home of Lakeside Casino, but it actually serves as a water drinking supply for the city of Osceola and surrounding area.