



Celebrating Lake Decatur's 80+ Birthday and The Urban/Rural Partnership to Protect It

For more than a century, soil and water conservation have shared a place near the summit of concerns to Decatur and Macon County. In fact, it would be difficult to find a community more dependent on both a reliable source of fresh water and good, rich croplands.

Decatur – recently acknowledged by its Chamber of Commerce “America’s Agribusiness Center” – is home to Tate & Lyle PLC’s North American headquarters and Archer Daniels Midland Co.’s home office, as well as operations for both companies that between them consume about three-fourths of the water pumped daily from Lake Decatur. The city also sits in the midst of the nation’s most productive cropland, with 87 percent of the 925 square miles of the Upper Sangamon River Watershed devoted to row crops – mainly corn and soybeans. It was this proximity to raw materials that led A.E. Staley Sr. to locate his first starch plant in Decatur early in the 20th Century and induced Dwayne O. Andreas, ADM’s chairman emeritus, to relocate that company’s headquarters in mid-century.

The community has had a pioneering role in soil and water conservation for nearly 100 years. Although Lake Decatur was not completed until 1922, community leaders began discussing the potential need for such a project at least 20 years earlier. And once A.E. Staley Sr.’s cornstarch business was firmly established and growing in importance to the city’s industrial base, it became imperative for Decatur to find a way to store and deliver more water on a daily basis. By 1912, the

Staley company was using nearly as much water as the rest of the city – and needed more. City leaders also pondered the city’s growing numbers and projected a population of 150,000 within two generations. While that goal is yet to be reached, well over 90,000 people depend on the lake for their daily water supply.

The Sangamon River was instrumental to the city’s founding and while it was a steady and reliable source, city leaders at the turn of the century realized any prolonged dry period might spell trouble for the city and Mr. Staley’s valued mill. So, in 1919, the city council voted to dam the river at the 610-foot level. The \$4.4 million project, including a new water works, was designed to ensure a two-year supply even if no rain fell in the Sangamon watershed.

It wasn’t long, however, before leaders discovered the flaw in their schemes: soil erosion and silting. From almost the moment the lake was established, it began filling up again with rich, black earth from the surrounding farmland. Such problems were predictable. In fact, silting was one of the biggest problems Roman engineers battled in their quest to keep water flowing into the capital city. To

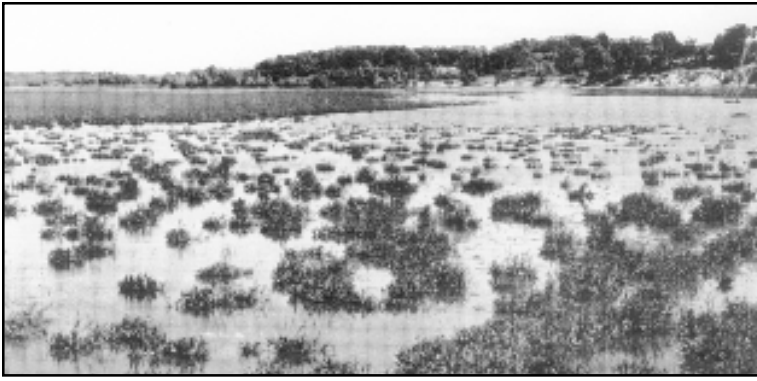


quote a 1945 report of the Decatur City Council, “All streams transport some sediment (so) any impounding reservoir will fill up ... in the course of time.”

To the degree that silt can be kept out of the lake, its useful life will be prolonged, the report concluded.

By 1946, more than one quarter of the lake’s storage capacity had filled in with topsoil, material better suited – and sorely needed – by Illinois corn and bean farmers. Besides soaking up topsoil equiva-





to help find solutions. The city and Macon County have been in the soil and water conservation business ever since. In cooperation with the City's two

lent to 7 inches deep over 3,400 acres, the lake had absorbed nearly \$100,000 in available nitrogen and another \$50,000 worth of phosphorus (1946 prices) – materials that, if still on the land, would help produce more corn, wheat and soybeans.

Part of the problem lay in the changing nature of land use. In 1922, when Lake Decatur was completed, only 41 percent of the farm land in the watershed was devoted to intertilled crops (corn and soybeans). By 1945, that allotment had increased to 60 percent and in some areas, up to 80 percent was devoted to the two cash crops. The future was clearly spelling itself out; today, corn and beans dominate Illinois agriculture, putting even more pressure on sustainability of the lake. However, more of the cropland has been put under conservation plans and installation of soil saving practices.

In 1941, concern for the silting problem prompted Decatur city leaders to establish an Upper Sangamon Valley Conservation Service and hire two soil conservationists

soil conservationists, farmers and urban residents of Macon County passed a referendum in 1943 to establish the Macon County Soil & Water Conservation District. Soil & Water Conservation Districts were established in McLean, Ford, Champaign, Piatt and DeWitt counties, through which the Sangamon passes en route to Lake Decatur.

By 1944, more than 200 farmers had been encouraged to use such conservation practices as contour farming, strip cropping, terracing, dams and grass waterways on 18,000 acres. Decatur also contracted with each of the six **soil & water** conservation district boards to provide technical and educational assistance through the Upper Sangamon Valley Association, established in the 1940s.

While taking an active role to encourage good farming practices in the Upper Sangamon region, Decatur officials also considered what the city could do to prolong the lake's longevity. An advisory committee for

Preservation of Lake Decatur and for Additional Water Supplies eschewed dredging in favor of a second dam near Rea's Bridge, north of the city. Addressing a report to the city council in November 1952, the committee also recommended damming Big Creek and establishing a third reservoir there. Dredging, the committee said, was "uneconomical, impractical and improvident."

The committee estimated that removing sediment from the lake to increase storage capacity would be 12 times more expensive than building new reservoirs. In view of that conclusion, the city turned its efforts toward creating a new lake near Oakley only to run into shifting political head winds.

In the 1960s, public concern over the ecological effects of impounding natural streams and rivers was growing. Other environmental concerns were fueling a new movement in America which culminated in the creation of environmental protection agencies at both state and federal levels. While Decatur had support in Washington and Springfield when it began planning Lake Springer, as the Oakley project was to be named, by the early 1970s regulatory changes and opposition from interests upstream doomed the project.

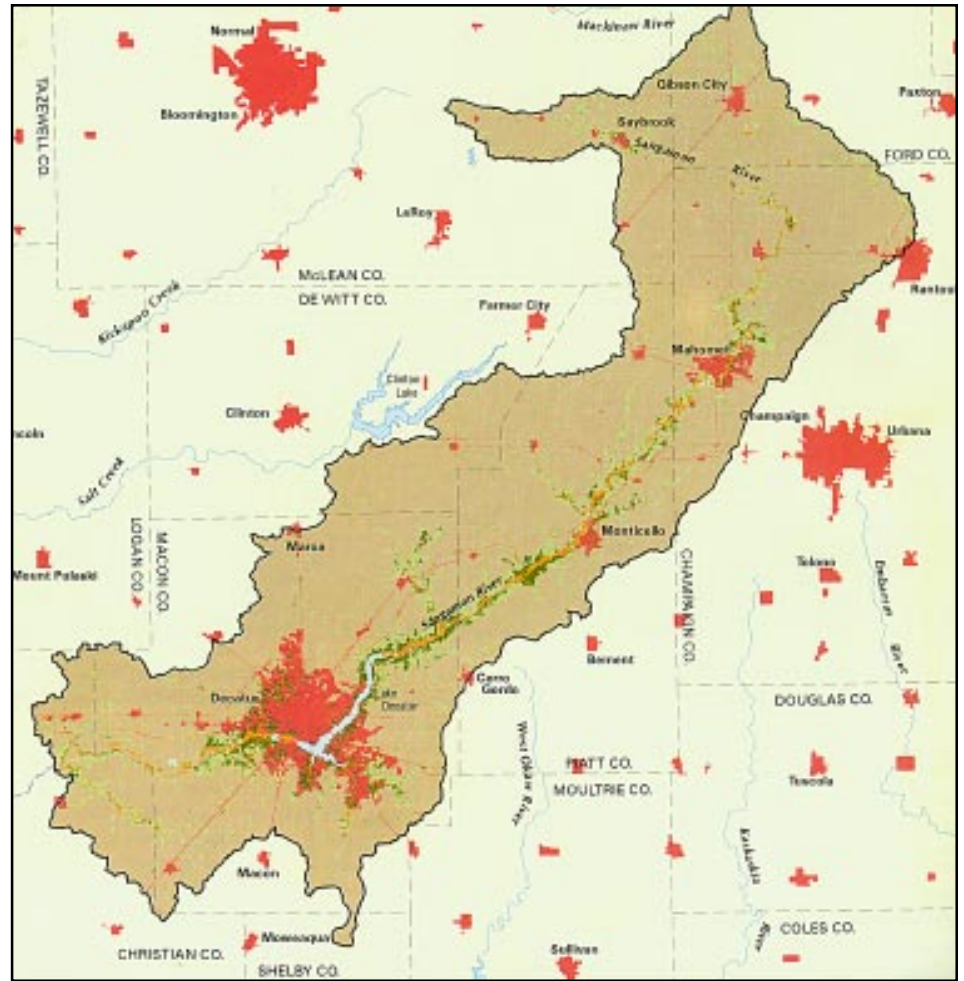
New efforts were needed and a Citizens Water Supply Advisory Committee was appointed to consider them in January 1976. Reporting in November, the committee offered five alternatives, including a



smaller reservoir on Long Creek and a silt by-pass project. Six years later, then City Manager Leslie T. Allen concluded that neither idea “fit comfortably within state and federal regulations ...” Allen proposed instead that the city develop a Lake Management Plan, study the use of wells to augment water needs, and consider selective dredging.

In February, 1984, then-Mayor Gary Anderson appointed a Lake Decatur Sedimentation Control Committee, which recommended several steps to preserve the lake’s life, including dredging the entire Faries Park basin. The basin, located north of the William Street bridge, had become so shallow the North Water Treatment plant often could not pump. Approximately three feet of sediment had accumulated on the lake bed in its 63 years of use, the committee reported. While the main body of the lake was still 10- to 13-foot deep, water levels in the Faries Park, Big Creek and Sand Creek basins had shrunk to between four- and seven-feet.

“There is no quick, magic solution to the sedimentation problem,” the committee said in a May 1985 report. But, it added, it would be “irresponsible” to give up on those grounds. Although the City had since turned to wells in DeWitt County to augment the lake, the Sedimentation Control Committee proposed dredging the endangered basins to enhance their recreational use, creating sediment traps to stop some portion from accumulating downstream, the coordination of soil conservation prac-



tices through the Macon County Soil & Water Conservation District in the watershed, and the City’s dredging maintenance program.

“We must recognize that the lake’s sedimentation problem is a regional one and that a close working relationship with the farming community is essential if any inroads are to be made toward ameliorating future accumulation,” the report recommended.

At Mayor Anderson’s request,

the Macon County Soil and Water Conservation District developed in 1988 an educational program to gain urban public support for dredging and continual care of the lake. “Friends of Lake Decatur,” comprised of members who live on or near the lake, sprang from a workshop the soil & water conservation district sponsored.

In 1989, the city developed a Lake Management Division and hired a lake manager. Working with



Friends of Lake Decatur, the lake manager held public meetings in the subsequent two years to update citizens on initial dredging programs and urban erosion control efforts. A Lake Decatur Watershed Committee, formed in the early 1990s, morphed into the Upper Sangamon River Watershed Committee in 1997. This committee meets at least four times a year to provide direction to federal, state and local efforts to promote soil conservation and preserve the lake. It is co chaired by a full-time farmer and a current member of the Decatur City Council.

Meantime, another aspect of the farm runoff problem had reached criticality. Besides silt, watershed drainage is high in nitrates, as farmers fertilize to increase yields. Urban lawn maintenance adds its share of the same chemicals. In 1992, the Illinois EPA demanded Decatur begin doing something to reduce nitrates in city drinking water. That effort consumed a decade, but by 2002, after implementing an ion exchange plant filter system the city was in compliance with nitrate regulations.

In 1995, then Lt. Gov. Bob Kustra recognized the Lake Decatur Watershed as a top Illinois watershed model, one of 15 selected to improve the Illinois River Watershed. Key points recognized by Kustra included voluntary participation by landowners, innovative approaches to solving the problems of nitrate and sediment

loads and the partnership developed between grassroots urban and rural citizens with local, state and federal agencies. On

average, over 220,000 tons of soil have been kept from entering Lake Decatur since the placement of waterways, terraces and structures. For every \$1.00 spent by the City of Decatur, the City benefited \$4.14.

Today, the Upper Sangamon Watershed agencies including the six soil & water conservation districts, USDA-Natural Resource Conservation Service, and Heart of the Sangamon River Ecosystem Partnership, are focusing much of their attention on reducing much of the soil and chemical runoff entering the Sangamon through such tools as nutrient management, or the scientific application of fertilizers by ensuring that no more chemicals are used than are needed for specific crops in specific fields.

The U.S. Environmental Protection Agency and its counterpart here in Illinois are now addressing urban storm water and urban soil erosion from construction sites that adds to the problems of Lake Decatur and the rivers and



lakes throughout Illinois. The soil and water conservation districts, with USDA-NRCS, are assisting municipalities and developers to address these concerns.

Finally, an Agricultural Watershed Institute was formed in 2003 in Decatur, for “... research and demonstration projects on erosion reduction, nutrient management, sediment removal and reuse...” and other conservation practices. The institute’s mission is to conduct research and educational programs on practices and policies to improve water quality, maintain and restore ecosystem health, and conserve and manage land and water resources within agricultural watersheds.

The institute’s origins go back 20 years, to when Mayor Anderson created the Sedimentation Control Committee, says Stephen John, one of the three founders. Anderson’s committee recommended that the city support soil conservation in the watershed.

“To the city’s credit, that recommendation has been followed,” John said. Every year since, the city has provided funds to the Macon County Soil and Water Conservation District.

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