

REINVESTING IN THE SANDSTONE CREEK WATERSHED

WORLD'S FIRST UPSTREAM FLOOD CONTROL PROJECT

On April 14, 1935, the worst single storm of the Dust Bowl picked up acres of Oklahoma soil and blew it so far dirt settled on cities several states away. World War I had encouraged food production and more acres than was needed was plowed up. What topsoil that did not blow away was washed away by rains that easily eroded the barren landscape. Streams, creeks, and rivers were clogged with sediment and prime farmland and towns were flooded.

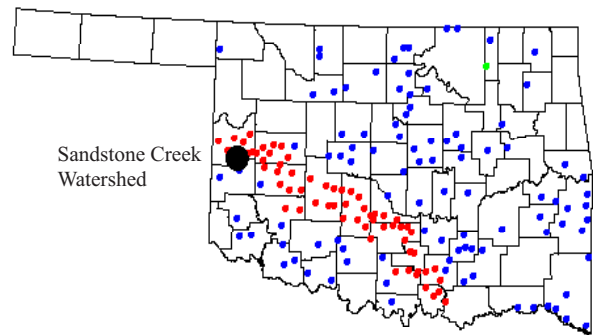
The birth of the Soil Conservation Service in 1935 spawned a national movement of conservation land treatment to reduce erosion on the uplands, and flood control dams to reduce flooding in the lowlands. Not just a state, but a national infrastructure of conservation measures was put in place to protect our natural resources and way of life. In 1952, Oklahoma completed construction on Sandstone Creek Watershed, a part of this infrastructure. Sandstone Creek was the world's first completed upstream flood control project.



The Situation:

FLOOD CONTROL DAMS ARE APPROACHING THE END OF THEIR DESIGNED LIFE.

Twenty four dams were constructed between 1950 and 1952 in the Sandstone Creek Watershed to control flooding and reduce erosion. These 24 upstream flood control dams are part of the 2,094 dams that have been built in Oklahoma under the small watershed program. These dams have functioned well and have prevented millions of dollars of flood related damages to crop and pasture lands, roads, and bridges. These dams will soon reach the end of their 50 year designed life.



The Sandstone Creek Watershed is one of 131 Watershed Projects in Oklahoma. Many will reach the end of their designed life within the next 10 years.



Project Statistics

- ◆ Size: 68,770 acres (107 square miles) in Roger Mills and Beckham Counties.
- ◆ Number of Dams: 24.
- ◆ Project Start: Construction began in 1950.
- ◆ Project Completion: Construction completed in 1952.
- ◆ Design Life: 50 years
- ◆ Primary Purposes: Watershed protection and flood reduction.
- ◆ Population Served: 3,000 people in the watershed area plus tourists and others for recreation



Sponsors

- ◆ Upper Washita Conservation District
- ◆ North Fork of Red River Conservation District

The Bottom Line:

The cost of losing this important infrastructure far exceeds the cost associated with reinvesting in existing watershed projects: protecting planned benefits, enhancing incidental benefits, and taking advantage of opportunities that improved watershed structures could provide.



SANDSTONE CREEK :

Sandstone Creek Watershed was constructed under the authority of Public Law 534. Through PL-534, Congress has invested \$11,656,354 in current dollars for the construction of the project. The local sponsors and landowners have contributed \$385,158 (current dollars) in land treatment practices, easements, and operation and maintenance of the project dams over the last 47 years.

The monetary benefits of the project have exceeded the project costs at the rate of \$1.77 of benefits for every \$1 of cost. In addition, many other benefits which impact the area significantly have been realized:

- ◆ Improved stream water quality
- ◆ Over 700 acres of permanent water for livestock, fish, and wildlife
- ◆ Recreation
- ◆ Fifty-thousand acres of improved upland wildlife habitat
- ◆ Cultural resources protected
- ◆ Safer roads and bridges



NEW OPPORTUNITIES

New economic, social, and environmental opportunities, coupled with potential new partners, could offer additional benefits for the Sandstone Creek Watershed. More recreation, rural fire protection, new water supplies, more wildlife habitat, and more wetlands, are all viable possibilities.



STATEWIDE PERSPECTIVE ON OKLAHOMA'S AGING WATERSHED DAMS

Sandstone Creek is one of 131 Oklahoma watersheds completed or still under construction. These combined projects represent a \$2 billion dollar infrastructure in Oklahoma. Local project sponsors have invested over 25 percent of the costs.

Two thousand and ninety four flood control dams have been built as part of these projects. Construction of the dams started in 1948 to control flooding and reduce erosion. Most were designed with a useful life of 50 years. Only a small number of these dams are in critical need of rebuilding or repair at this time, but many were built over a short period of time and will soon reach their 50-year design life. An organized approach is needed to analyze the extent of repair and rebuilding needed, to prioritize those with the greatest need, and to make necessary repairs or improvements.