

Reinvesting In The Double Creek Watershed



The Situation:

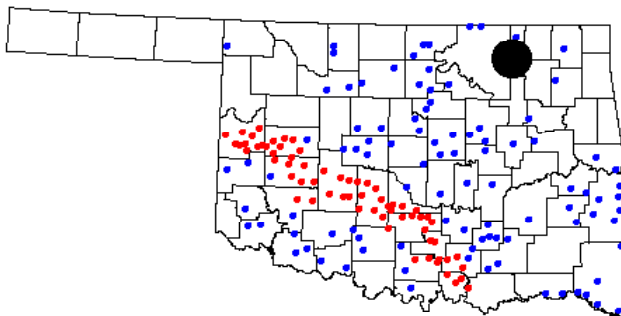
Forty-Year Old Flood Control Dams and Unregulated Development Create Safety Issue.

Six dams were constructed by 1956 to control flooding in this primarily rural grassland watershed. As flooding was controlled, landowners below these structures took advantage of the protected floodplain by building houses and other structures in the 100-year floodplain.

Overall, the six dams are in good condition and have functioned the way they were designed. They have controlled flooding in the Double Creek Watershed for over 40 years, during which time a generation of residents have grown up relying on that protection and enjoying recreational, fish and wildlife, and livestock watering benefits associated with the six reservoirs.

But there is a safety issue aside from the age of the dams. These dams were designed as low hazard dams. They were not intended to provide flood protection for houses and businesses. As a result of this development, all six dams need to be rebuilt to high hazard safety standards, thereby providing additional protection to floodplain residents, and continued flood protection to farmers and ranchers, schools, roads, and bridges.

Double Creek Watershed



The Double Creek Watershed is one of 131 watershed flood control projects in Oklahoma.

PROTECTING OKLAHOMA'S WATERSHEDS



"Many of the residents of the community today do not know how it was fifty years ago when flood waters inundated the area."

Kent Jeter, Chairman, Caney Valley Conservation District



Double Creek Watershed Project Statistics

- ◆ Size: Covers 38,000 acres in Washington and Osage Counties.
- ◆ No. of dams: Six
- ◆ Project start: Construction began in 1954
- ◆ Project end: Last dam built in 1956.
- ◆ Design Life: 50 years
- ◆ Primary purpose: Control flooding and sedimentation, and reduce erosion.
- ◆ Population served: 1,020 people in the watershed, plus tourists and others for recreation. US Highway 75, a major transportation route between the cities of Tulsa and Bartlesville, runs through the watershed and is below all 6 dams.



SPONSOR:

- ◆ Caney Valley Conservation District

"Over the years new roads, bridges and homes have been constructed under the supposition that these upstream dams would forever remain in place. Without these dams the former flooding would reappear and the new construction would be placed in jeopardy." **Janet R. Maloney, Caney Valley Conservation District Board Member**



DOUBLE CREEK: REINVESTING IN OKLAHOMA'S FUTURE.

The Double Creek Watershed is one of 60 pilot watersheds in 34 states for which funds were appropriated in 1954 under Public Law 46 to demonstrate combined conservation land treatment and flood prevention. Congress invested \$2.8 million (current dollars) in the construction of the Double Creek Watershed Project. The local sponsors and landowners have contributed \$630 thousand (current dollars) in land treatment practices, easements, and operation and maintenance of the project dams for the last 40 years.

The monetary benefits of the project have exceeded the project costs at the rate of \$2.17 of benefits for every \$1 of cost. Incidental benefits of the six flood control dams and associated reservoirs have resulted in positive benefits for the community and environment:

- ◆ Forty-three homes protected from flooding at depths up to seven feet above floor elevation.
- ◆ Over 50 miles of roads and 26 bridges are safer and longer lasting.
- ◆ Recreational skiing at dam No.1. Over four hundred visitor days occur annually.
- ◆ Impounded water provides fish and wildlife habitat and waterfowl nesting areas.
- ◆ Cultural Resources protected.
- ◆ 18,000 acres of improved grassland habitat.



NEW OPPORTUNITIES

The Double Creek Watershed Pilot Project was implemented by local sponsors to control flooding and associated damages, reduce erosion, and provide better grazingland habitat in the upland areas. The project has protected farm and ranch lands, roads, bridges, and other community assets, while providing a sense of security and well being to watershed residents. The need to continue this project into the future is more important today than it was 40 years ago because the community infrastructure has grown.

In addition to enjoying the benefits provided by the project plan, the opportunity exists to enhance fish and wildlife habitat and provide more recreation. Other opportunities include rural fire protection, improved water quality, and wetland restoration.

"Double Creek Site No.1 not only provides flood protection to downstream properties but also enhances the natural environment for fish, waterfowl, and wildlife, and provides a variety of recreational opportunities. The lake is truly multipurpose."

—**Jeanne Riney Froeb, Co-owner.**



Statewide Perspective on Oklahoma's Aging Watershed Dams

Double Creek is one of 131 Oklahoma watersheds completed or still in 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 ninety four flood control dams have been built as part of these projects. They were built as early as 1948 and they are still controlling flooding and reducing 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 time span and will soon reach their 50-year designed 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.

"Thousands upon thousands of dollars have been saved from the flooding which occurred several times annually."

—**Lee Chew, District 3 County Commissioner**

"There have been lots of homes, roads, and bridges built below these structures over the last 45 years and they are quite dependent upon these structures to control the runoff waters."

—**Jim Brashear, District Manager, Caney Valley
Conservation District**

"While the flood control aspect (of the dam) affects us only by helping our neighbors and thus our town of Ramona, we directly enjoy the recreation it provides."

—**E.G. Todd, Rancher**
