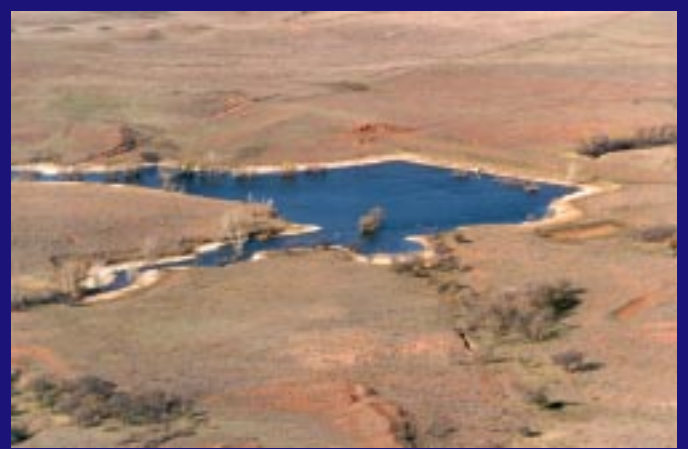


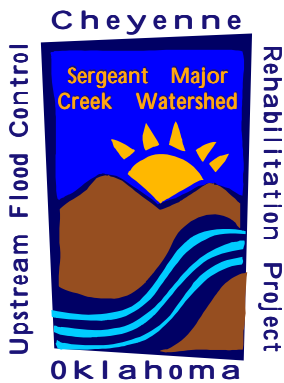
Sergeant Major Creek Watershed

Roger Mills County, Oklahoma



**National Pilot Upstream Flood Control
Rehabilitation Project**

Sergeant Major Creek Watershed

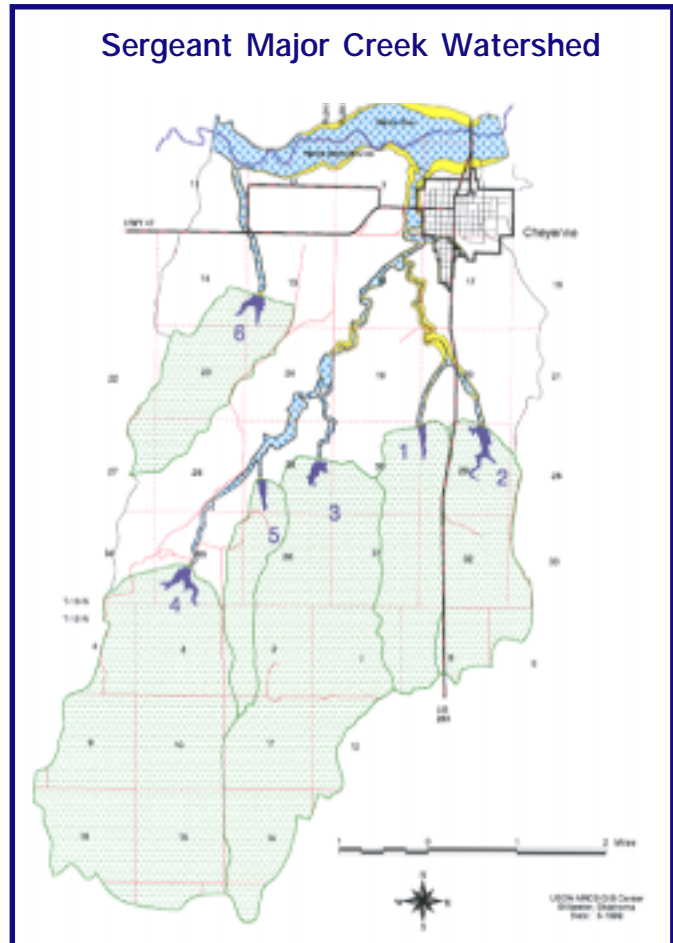


In July 1998, a celebration was held in Cordell, Oklahoma, to mark the 50th anniversary of the nation's first upstream flood control dam. This celebration of Cloud Creek Site One in Washita County also brought to light that many of the earlier constructed upstream flood control dams would soon reach the end of their 50 year life

span. Many of these 40-50 year old dams need rehabilitation to continue to safely function properly.

The USDA Natural Resources Conservation Service selected Oklahoma to establish a pilot project on rehabilitation of aging flood control dams. Sergeant Major Creek Watershed was selected for this project in August 1998.

This pilot project is identifying barriers, methods of rehabilitating older dams, and identifying opportunities to address other resource needs that will be involved with rehabilitation of aging dams nationwide.



Water quality studies were one of many studies and inventories made in the watershed as part of the rehabilitation project.



Work began on this pilot project in August 1998. The pilot has included a locally-led process, development of a project work plan supplement, reconstruction of two dams, and other conservation activities.

The Sergeant Major Creek Watershed is located in Roger Mills County in western Oklahoma. The watershed includes 19,684 acres and encompasses the Town of Cheyenne (population 950) and the Washita Battlefield National Historic Site.

The U.S. Forest Service and U.S. National Park Service operate 900 acres in the watershed, with the balance of the land being privately owned and operated. The majority of the land is rangeland with some cropland along the creeks. Sergeant Major Creek drains into the Washita River just north of Cheyenne.

"The Sergeant Major Creek streambank was 30 feet wide and had vertical banks 15-20 feet deep before the dams were built. It would flood frequently and wooden bridges would wash out every two or three years," says Everett Swartwood, local rancher. "Now the channel is only 3 to 4 feet wide and the banks are stabilized."



Billy Chalfant grew up in a house on the west edge of Cheyenne. "Our house was 850 feet from the creek and as a teenager I can remember the water getting up to the foundation of the house during the 1934 flood. The 13 inches that fell south of Cheyenne washed out the bridge on the Washita north of town and contributed to the Hammon flood."



History of the Watershed

Before construction of the six upstream flood control dams in the watershed, Sergeant Major Creek contributed to serious flood damages. Heavy rains in the watershed produced a major flood in Hammon, Oklahoma, in 1934, which took the lives of 17 people.

During the period from 1923 to 1942, there were 11 floods in the watershed which covered more than one-half of the flood plain, and 74 smaller floods.

Watershed Project Implemented

Working under Public Law 78-534 (Flood Control Act of 1944), USDA assisted local sponsors develop a flood prevention plan on 2,530 acres of the east branch of Sergeant Major Creek in 1949. Two floodwater retarding dams, 12 miles of diversions, and 5 drop inlets for sediment control were soon constructed. The two dams, which were built in 1948 and 1949, are being rehabilitated in this pilot project.

In 1953 a workplan was developed adding the remaining 17,154 acres to the project and four more flood control dams were built between 1949 and 1963. Site 4 is being used as the sole source of water supply for the town of Cheyenne.

Benefits of the Project

"A 5-6 inch rain use to put the stream out of its banks at least once or twice a year before the dams were built," says Billy Harrison, local resident.

"Today the watershed is protected from flooding and the creek bank has stabilized and is covered with vegetation. The Sergeant Major Creek project has been a life saver for the community."



Sergeant Major Creek in 1949 prior to construction of the dams, and same location in 1999.

Locally-Led Process

The Upper Washita Conservation District has provided the leadership in making a resource assessment and identifying priority resource and community needs in the watershed. The district organized a work group of landowners, city representatives and other citizens to assist with this process.

Watershed Objectives and Goals Being Accomplished:

- ✎ Rehabilitate flood control dams No. 1 and 2.
- ✎ Work with city officials to protect Site 4 and the watershed above the reservoir
- ✎ Solve stormwater runoff problems in Cheyenne.
- ✎ Improve rangeland and wildlife resources in the watershed by educating landowners about range and wildlife management through workshops and on-site assistance, developing conservation plans for all land in the watershed, and developing grazing plans on at least one-half of the rangeland acres in the watershed.
- ✎ Educate oil and gas company officials about erosion control methods around oil and gas well sites.
- ✎ Rehabilitate older conservation practices in the watershed.

Progress on Pilot Project

Site 2 is the first upstream dam in the nation to be rehabilitated. The dam has been raised and the emergency spillway enlarged. The concrete tower and principal spillway have been replaced and a new drainage system installed in the back of the dam. Site 1 will be getting a new inlet tower and principal spillway as well as rebuilding the embankment and a new emergency spillway to meet Oklahoma dam safety standards.

Other Activities in the Watershed

Conservation plans and grazing systems are being developed by landowners with help from NRCS.

A 320-acre grazing demonstration project, funded by



Reconstruction of Site 2.

a Kerr Center for Sustainable Agriculture producer grant, has been established.

Oil and gas companies operating in the watershed have been contacted and provided with materials about the proper resource management.

A rangeland inventory has been completed and a range workshop for landowners has been conducted.



NRCS range conservationist and landowner studying the rangeland conditions in the watershed.



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