

Spring Creek Watershed Dam No. R-1 Rehabilitation Project Sedgwick County, Kansas

Fact Sheet
February 2016

History of the Dam:

Spring Creek Watershed Dam No. R-1 is located 3.5 miles southwest of the City of Garden Plain in Sedgwick County, Kansas. The dam was constructed in 1972 by the Spring Creek Watershed Joint District 16, Sedgwick County Conservation District, Reno Conservation District and the USDA Natural Resources Conservation Service (NRCS) Watershed Protection and Flood Prevention Program.

The dam provides flood control for 145 acres of agricultural lands and protects MacArthur Road.



Replacement of the principal spillway and construction of a rip rapped plunge basin were two of the major components of the rehabilitation project.

The Spring Creek Watershed Project is located in Northwest Sedgwick County and Southwest Reno County and has a total drainage area of approximately 43.5 square miles which flows into the North Fork of the Ninescaw River.

Local sponsors developed a plan for the watershed project in 1960 that included land treatment and structural measures to aid in the protection of natural resources and to address flood-related issues of the watershed. The plan called for the construction of seven flood control dams of which four have been constructed. Three dams were deleted from the plan in 1972.

Why Rehabilitate the Dam?

The dam was originally designed as a low hazard dam with a 50-year design life. It was reclassified as a high hazard dam in 2005 because it no longer met current dam state safety criteria due to the increased traffic on MacArthur Road downstream of the dam. MacArthur Road has a current traffic count of over 1,500 vehicles per day. The dam's age and its high hazard safety criteria triggered its rehabilitation which began in July 2014 and was completed in March 2015.

Rehabilitation Details:

The 18-inch reinforced concrete principal spillway pipe with a concrete square riser was replaced with a 30-inch diameter reinforced concrete conduit with a standard open-top riser. The top of the dam was raised 1.6 feet. The auxiliary spillway was expanded from 40 feet to 140 feet wide and the spillway crest was raised 1.2 feet. Upgrades were also made to the dam's foundation, embankment, outlet channel and drainage system.

Project Cost:

The NRCS provided technical assistance and 65 percent of the project cost. Local project sponsors provided 35 percent of the cost. Rehabilitation of the dam cost \$542,756.

Benefits:

Rehabilitation of the dam extends the life of the dam for another 100 years. It is estimated that the dam will reduce flood damages by an average of \$33,800 annually, protecting agricultural lands and MacArthur Road.

Partners:

- Spring Creek Watershed Joint District 16
- Sedgwick County Conservation District
- Reno County Conservation District
- Natural Resources Conservation Service

For More Information Contact:

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