

Upper Big Nemaha Dam No. 25-C Rehabilitation Project Gage County, Nebraska

Fact Sheet
September 2020

History of the Dam:

The Upper Big Nemaha Watershed Dam No. 25-C, known locally as Doctors Lake, was constructed in 1974 by the Gage County Soil and Water Conservation District with the assistance of the Natural Resources Conservation Service (NRCS) Watershed Protection and Flood Prevention Program.

The Nemaha Natural Resources District now has operation and maintenance responsibilities for this dam.

Why Rehabilitate the Dam?

The dam was designed and constructed to meet the dam safety engineering standards in place at the time of construction. Federal engineers determined that the original design of the dam did not meet current safety standards for passing a maximum probable precipitation event, which is 24 inches of rain in a 24-hour period.

Rehabilitation Details:

The dam is being rehabilitated to current safety standards for a high hazard dam.

Home construction around the lake did not allow for raising the height of the dam which is often used in rehabilitation projects.



To achieve the necessary improvements to meet the current safety standards a new concrete spillway is being constructed through the center of the dam which will increase the maximum flow through the dam from 6,000 cubic feet per second to over 15,000 cubic feet per second.

The normal water level in the reservoir will remain the same as in the past. Over 1,300 cubic yards of concrete will be required to build the new spillway. Grading and rock riprap on the front slope of the dam are also included in the project. The rehabilitation project will be completed in 2021.

Project Cost:

The estimated project cost is \$2.6 million. NRCS is providing technical assistance and 65 percent of the cost and project sponsors are providing easements and land rights for the project and 35 percent of the cost.

Federal funding is being provided through the NRCS Watershed Dam Rehabilitation Program.

Benefits:

This rehabilitation project provides public safety and flood damage reduction benefits to areas downstream.

The average annual flood reduction benefits (in 2020 dollars) is approximately \$185,000. Regardless of inflation, the benefits of this dam over 100 years could be approximately \$20 million dollars.

Rehabilitation will improve the safety of the high hazard dam and extend the dam's life span and its benefits for another 100 years.

Project Partners:

Nemaha Natural Resources District
USDA Natural Resources Conservation Service

For More Information Contact:

Allen Gehring,
Nebraska NRCS State Engineer
(402) 437-4037
allen.gehring@ne.usda.gov



This fact sheet was developed by the National Watershed Coalition for the USDA Natural Resources Conservation Service. USDA is an equal opportunity provider, employer and lender.

September 2020

