



# Newell Lake and Lake Alvin Spillway Replacements

## South Dakota Game, Fish and Parks

### Overview

Governor Noem's recommended budget includes \$5,600,000 in one-time funding to support replacing spillway structures at Newell Lake and Lake Alvin. These spillway structures were significantly damaged by flooding in 2019. Barr Engineering, a consultant hired to evaluate the damage and provide recommendations for repairs, concluded the most cost-effective recommendation would be a complete replacement of both structures based on age, extent of damage, and safety.

Lake Alvin is a 105-acre impoundment located in Lincoln County, owned by South Dakota Game, Fish and Parks (GFP) and classified as a low-hazard dam. The public water and lands provide access for birdwatching, boating, canoe/kayaking, fishing, swimming, picnicking, and other activities.

Newell Lake, a 154-acre impoundment located in Butte County, is a popular recreational destination in western South Dakota that provides ample opportunities for outdoor enthusiasts. Newell Lake is classified as a low-hazard dam and is the responsibility of GFP through permanent easements.

### Project Description

Barr Engineering has developed plans for the Lake Alvin spillway to the ten-percent design phase with preliminary cost estimates. This design will provide for a new spillway to replace the current structure's concrete chute. The proposed design will utilize a stepped structure for better constructability and performance.

Due to the extent of the damage at Newell Lake, replacing the current pipe spillway has been determined to be the best option. Barr Engineering has developed a design for a block/chute spillway option. This allows the area to use the same footprint and still be able to meet the current Dams Safety specifications for the amount of water it needs to pass. Plans are 100 percent developed with clearances and permitting taking place.

### Funding

The total estimated cost of the two spillway replacement projects is \$5.6 million. This funding will be used to construct the new structures while fish habitat restoration and access improvements will be completed with department funding, ensuring these investments produce quality outdoor recreational opportunities for generations.