Lake Loramie Dam is a Class I dam located in Lake Loramie State Park in McLean Township in Shelby County, Ohio. The rehabilitation project was undertaken as part of a statewide initiative by the Ohio Department of Natural Resources to repair and rehabilitate state-owned dams to ensure the safety of Ohio’s lakes and surrounding communities.

Michael Baker provided engineering services for the rehabilitation of Lake Loramie Dam as an interim risk reduction project. The existing spillway had exhibited severe structural deterioration and was replaced with a labyrinth spillway adjacent to the existing spillway while maintaining the lake’s normal pool. Michael Baker’s services included site and geotechnical investigation, hydrologic and hydraulic analysis, permitting, dam inspection, rehabilitation design, instrumentation implementation, and construction management and inspection services.

The labyrinth spillway consists of a zigzag-shaped concrete structure designed to convey large flows of water at low heads by increasing the effective length of the weir, or dam, crest with respect to the channel width. This allows passage of larger flood flows without increasing lake levels and impacting surrounding properties. The Lake Loramie labyrinth weir is one of the first of its kind to be built and commissioned in an Ohio state park.

OWNER:
Ohio Department of Natural Resources
Columbus, Ohio

SUBMITTED BY:
Michael Baker International, Inc.
Moon Township, Pennsylvania