

MASSABESIC LAKE DAM IMPROVEMENTS



PROJECT PURPOSE, CHALLENGES & COMPLEXITY:

New Hampshire SLR staff have worked on H&H modeling, Emergency Action Plans (EAP), dam condition assessments, and preliminary / final design. The project incorporated the design of improvements to the main spillway, including sandblasting, concrete repairs, dam embankment, flashboards, spillway apron, and unique waterproofing of the spillway face; canal earthen dikes; gatehouse; upstream cutoff wall; Lake Shore Road auxiliary spillway, using a phased construction allowing the overall system to remain operational during the improvements.



SOCIAL & ECONOMIC CONSIDERATIONS

The Massabesic Lake Dam is classified as a High-Hazard Dam. The potential areawide devastation that would occur if the dam breached would have consequential negative local, social, and economic impacts. As such the MWW project had clear social, economic, and sustainable development considerations.

INNOVATIVE & SUSTAINABLE DESIGN

In addition to repairs and waterproofing to the spillway wall and improvements to components of the entire dam system, several new hydraulic features and increased storage capacity were included in the project design to improve system resiliency and sustainability.

CLIENT SATISFACTION

The recommendation letter from Manchester Water Works demonstrates the owner's satisfaction with the completion of all services. As noted in their letter.

"SLR performed an excellent job completing the design and construction inspection services and communicating closely with MWW and NHDES Dam Bureau staff throughout the entire project. The recently completed improvements represent a cost-effective and resilient design for the entire dam system." - Manchester Water Works



Engineer:

SLR International
 Corporation



Client/Owner:

Manchester Water
 Works

