

## Lake Milo and Lake George Dam | Dam Safety Review

Town of Yarmouth



### Description:

The Town of Yarmouth manages two dam systems; Lake George dam retains the municipal drinking water supply and Lake Milo dam retains a reservoir used for recreational activities and lake front properties. As part of its watershed management diligence, the Town of Yarmouth requested Meco to perform a Dam Safety Review (DSR) of the Lake George and Lake Milo dams in accordance with the Canadian Dam Association (CDA) *Dam Safety Guidelines, 2007 (Guidelines)*. This DSR is intended to assess watershed management practices of the Town as they relate to the current condition, operation/ maintenance/ surveillance and emergency preparedness practices at the dam site.

Meco's scope of work included:

- Classification of the dam & spillway in accordance with the CDA Guidelines
- A site inspection for physical deficiencies
- A review of Operations, Maintenance and Surveillance practices
- Development of a hydrological models for both the Lake George and Lake Milo Watersheds
- Routing of the Inflow Design Flood (IDF) through system to determine outflow hydrographs and required freeboard.
- Dam break modeling and flood inundation mapping using SMPDBK™
- Analysis of design and construction
- Preparation of a formal report with findings and recommendations

**Comments on Budget/Schedule Difficulties:** Project completed on budget and within schedule.

**Responsibility on Project:** Meco completed a site condition assessment, as well as a hydrological analysis of the both the Lake George and Lake Milo watersheds to determine the IDF hydrographs, reservoir storage and routing and discharge capacity and outflow hydrographs. The software simplified dam break SMPDBK™ was used to generate a flood inundation maps to aid in the classification of the dams and complete the DSR.

**Relevance of Project:** The project is presented to demonstrate Meco's broad capability to meet all challenges for dam safety engineering.