
Lake Winona Dam #22-160



Client/Owner: Lake Winona Civic Association

Project Location: Jefferson Township, Morris County, NJ

Greenman-Pedersen, Inc. (GPI) was retained by the Lake Winona Civic Association in March 2000 after the association was cited by NJDEP Dam Safety for failing to repair spillway damage that had been caused by Hurricane Floyd in September of 1999. On August 12, 2000, the municipalities of Sparta, Ogdensburg, Hopatcong, Byram, and Jefferson in Morris and Sussex Counties in New Jersey were hard hit by a high intensity, storm that dumped 8 to 14 ½ inches of rainfall over the area in a 17 hour period.

Based upon this data, this storm is universally recognized as a new storm of record and was well in excess of the standard 100 year 24 hour storm event for the area. The Lake Winona Dam overtopped due to lack of spillway capacity and suffered damage. The overtopping occurred as a result of lack of spillway capacity and caused the timber flashboards to be destroyed, the spillway bridge to be severely damaged and several homes which are located at the toe of the dam were flooded by the overtopping flows. The NJDEP/DSS raised the dam's Hazard Classification from Low to High and required the LWCA to submit a Hazard Assessment and Spillway Capacity Analysis prior to issuing any further permits for repairs to the dam/spillway.

GPI provided an emergency inspection/assessment of the damage and prepared the documents necessary to remove the remnants of the spillway flashboards and the bridge. The emergency repair work permit was subsequently issued and the LWCA completed the repairs. GPI also provided technical assistance to LWCA in preparation of their Emergency Action Plan. GPI is currently awaiting NJDEP/DSS review and approval of the Hazard Assessment and Spillway Capacity Analysis. Recommendations to LWCA for upgrading the capacity of the spillway to comply with current NJDEP Dam Safety standards are pending.