

GENESEE LAKES OUTLET PIPE



The Village of Summit has a three-lake system within its boundaries, which consists of Lower, Middle, and Upper Genesee lakes. Upper Genesee Lake feeds into the middle and lower lakes, and the lake system relies on groundwater flow during flooding conditions. Starting in the 1940's, various degrees of flooding affected this area every 10 to 15 years. Solutions had been discussed, but funding remained a roadblock.

The severe flooding events of June 2008 resulted in extensive damage to Village roads, numerous private properties, and natural amenities. This flooding event prompted action and made controlling the lakes' levels a high priority. Yaggy Colby Associates worked with the Village to prepare an application for a Community Development Block Grant, and the Village was awarded \$506,000.

Client:

Village of Summit

Location:

Summit, WI

Construction Cost:

\$ 485,000

Services Provided:

- Grant Application
- Surveying
- Civil Engineering
- Floodplain Analysis
- Preparation of Bid Documents
- Construction Services

Yaggy Colby designed an outlet structure and pipe to carry overflow from Lower Genesee Lake, which would provide a controlled elevation for all three lakes and prevent future flooding. Water from the lake system overflows through lowlands to Lower Lake Road, where it now enters the new outlet structure. Via gravity, it travels about one mile through an 18-inch discharge pipe. The water exits the pipe to a swale area, and then enters an area of wetlands where it drains to the Bark River. As part of the design, the firm had to analyze the outlet structure's downstream impacts to the Bark River to ensure that the design did not raise the floodplain elevation by more than 0.01 feet.

Construction was completed in the spring of 2011. The project came in under budget, and early indicators of its function are very positive.

Flooded properties in the Village of Summit (June, 2008)



Water from lowlands enters outlet structure at Lower Lake Road



Water leaves outlet pipe through discharge point and swale (shown under construction)