



HORNELL FLOOD DAMAGE REDUCTION PROJECT



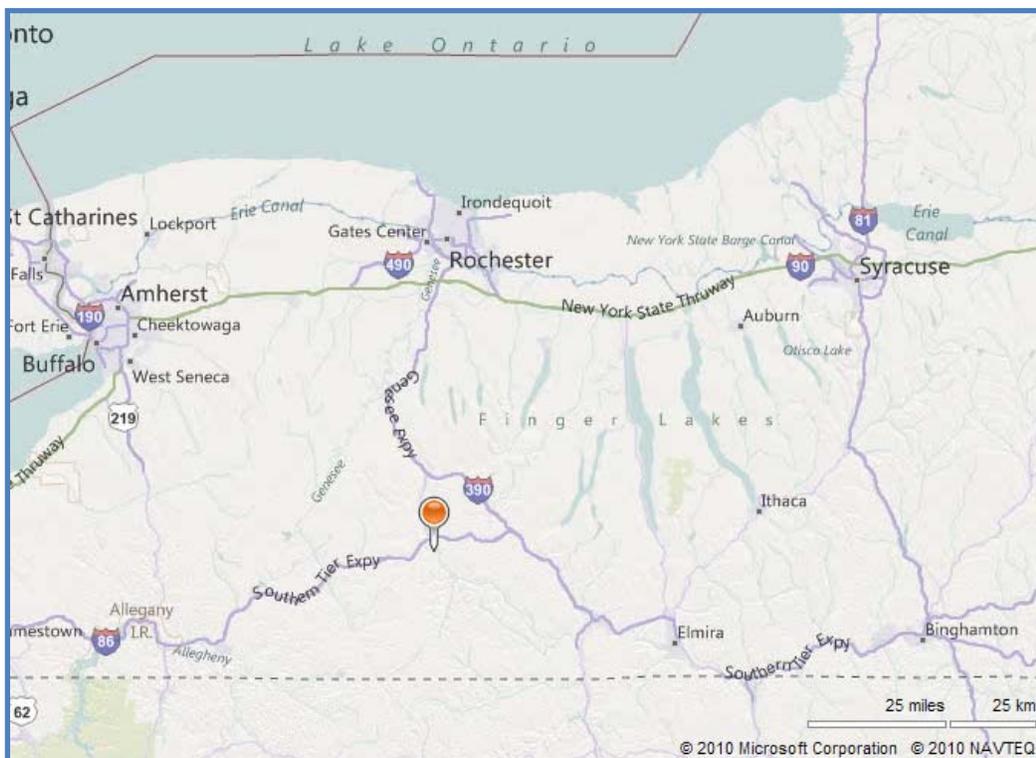
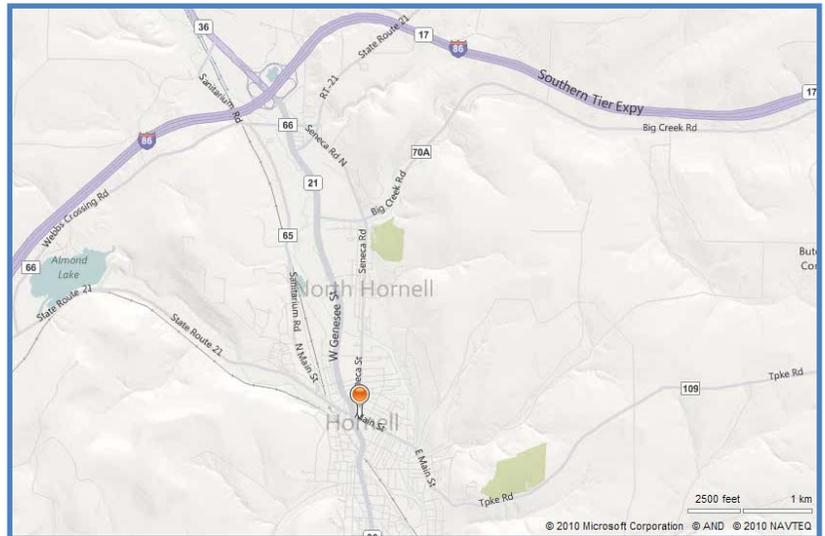
*Department of
Environmental Conservation*

*Region 8 Counties: Chemung,
Genesee, Livingston, Monroe,
Ontario, Orleans, Schuyler,
Seneca, **Steuben**, Wayne, Yates*

PROJECT LOCATION

The City of Hornell is located near the central western limits of Steuben County, New York, in the Susquehanna River Basin, 375 miles above the mouth of the Susquehanna River, at the Junction of Canacadea Creek and Canisteo River.

Operated & Maintained by: US Army Corps of Engineers



The flood protection project is almost entirely within the corporate limits of Hornell, New York.

PROJECT DESCRIPTION

Protective works at Hornell comprises mainly of 31,300 feet of earth levees, 27,700 feet of concrete wall, 19,600 feet of channel realignment, and 10,550 feet of channel paving. Additional work consisted of the replacement of 7 bridges, modifications to 6 bridges, and the construction of 5 check dams, 4 drop structures, 4 weirs, several closure structures, and appurtenant drainage structures along the Canisteo River, Canacadea and Crosby Creeks, and Chauncey Run.

The improvements, supplemented by Almond Lake and Arkport Dam upstream from the area, were designed to provide protection for Hornell against discharges approximately double those which occurred in the July 1935 flood. The protective works withstood the flood resulting from tropical storm “Agnes” in June 1972, which was the maximum of record on the Canisteo River.

AUTHORIZATION

The project is a unit of the comprehensive flood control plan for the protection of communities in southern New York and eastern Pennsylvania authorized by the Flood Control Act of June 22nd, 1936, as amended by the Flood Control Act of Jun 28th, 1938, and is described in house Document No. 702 77th Congress, second session.

PROTECTION PROVIDED

The authorized plan of flood protection at Hornell was based on the combination of local protection and channel improvement, and two retention reservoirs upstream from the City of Hornell. One of the reservoirs is located on the Canisteo River near Arkport and the other on the Canacadea Creek near Almond, New York. The channel improvement in Hornell has increased the non-damaging capacity for the following waters:

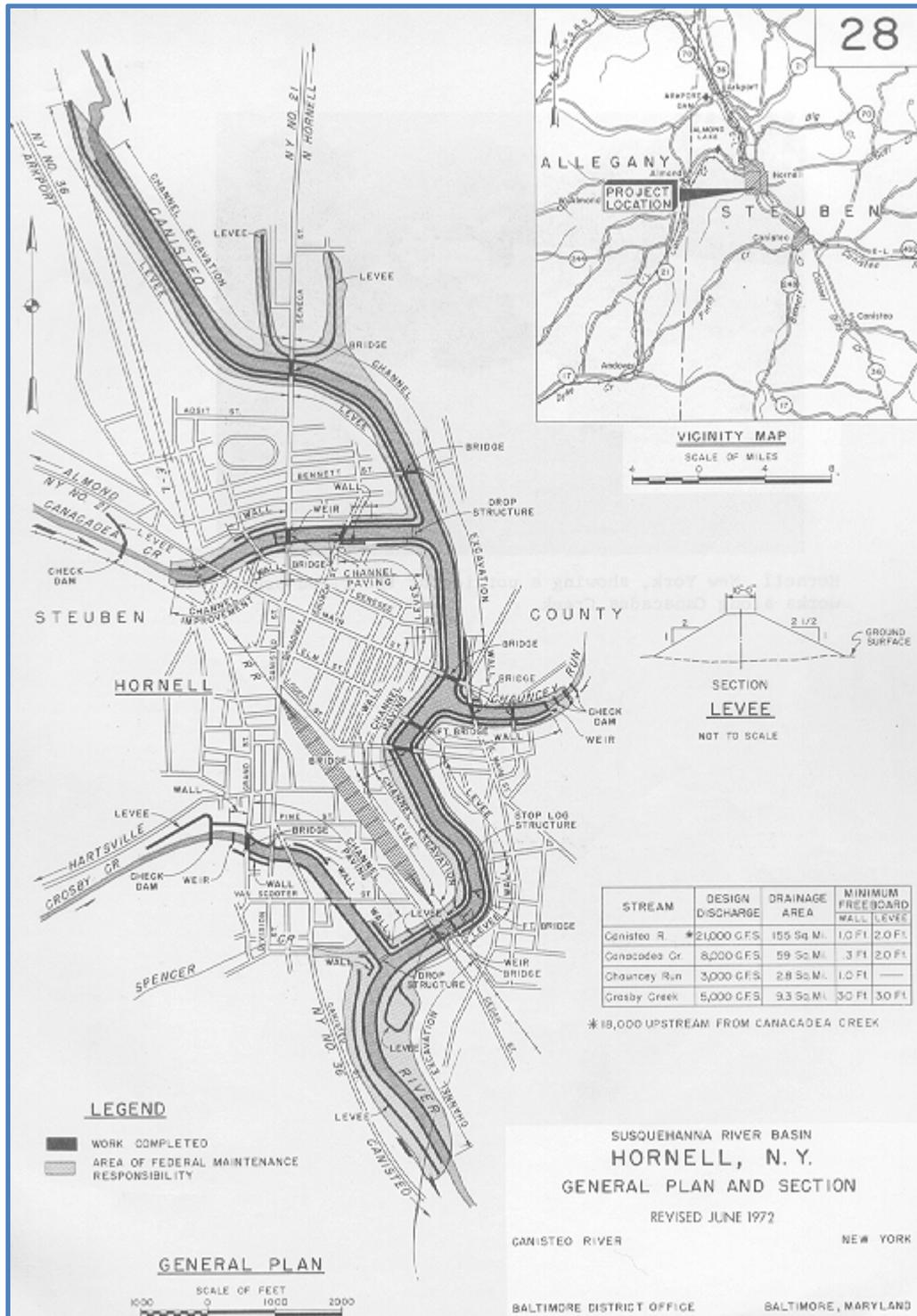
- Canisteo River from 6,000 c.f.s. to 21,000 c.f.s.- with a freeboard of 1 foot for walls and 2 feet for levees.
- Canacadea Creek from 4,000 c.f.s. to 8,000 c.f.s. - with a freeboard of 0.3 foot for walls and 2 feet for levees.
- Crosby Creek from 3,000 to 5,000 c.f.s. - with a freeboard of 3 feet for walls and 3 feet for levees.
- Chauncey Run to 3,000 c.f.s. - with a freeboard of 1 foot for walls.

The whole system, including channel improvement and retention reservoirs, at the time of construction, provided protection for the City of Hornell against a flood discharge approximately 100 percent greater than the flood which occurred in July 1935. The designed natural flow, at Hornell, is approximately 52,000 c.f.s. The flow of tropical storm Agnes, at Hornell in June 1972, was approximately 34,000 c.f.s. The system will lower the stage of a repetitive flood on the Canisteo River by about 10 feet downstream from its junction with Canacadea Creek, and about 7 feet below the Erie-Lackawanna Railroad bridges.

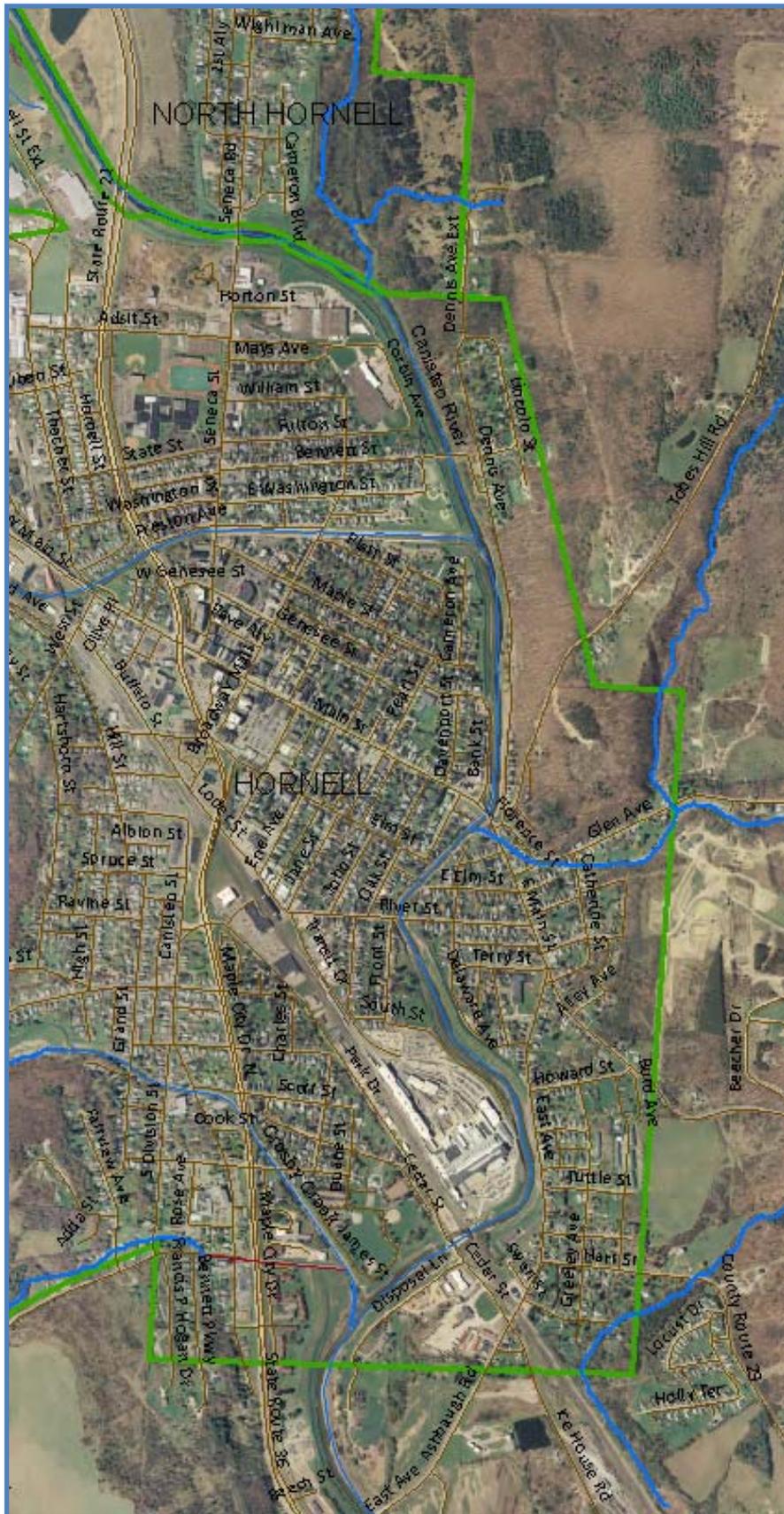
CONSTRUCTION

The Hornell flood-protection project was designed and constructed under the direction of the US Army Engineer District, New York. Construction began in May 1937 and completed in November 1955.

HORNELL - GENERAL PLAN



HORNELL - BIRD'S EYE VIEW



HORNELL - GENERAL PLAN AND AERIAL MAP OVERLAY

