



# AMHERST FLOOD DAMAGE REDUCTION PROJECT



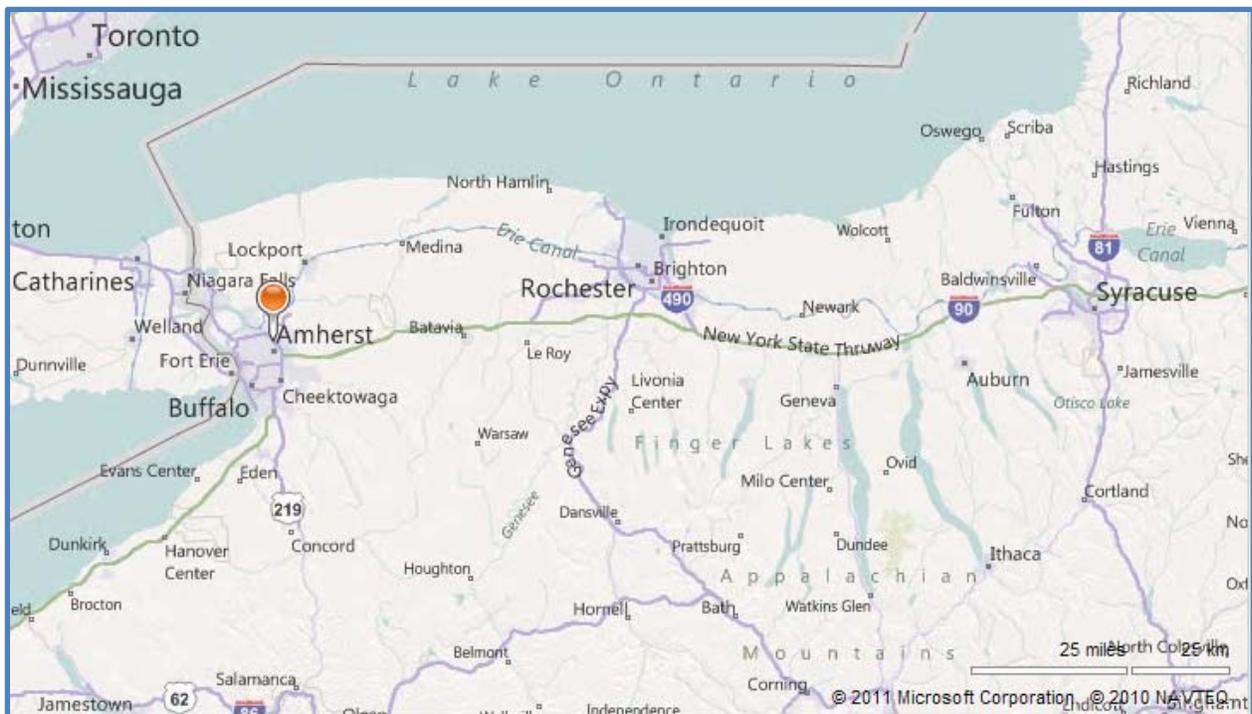
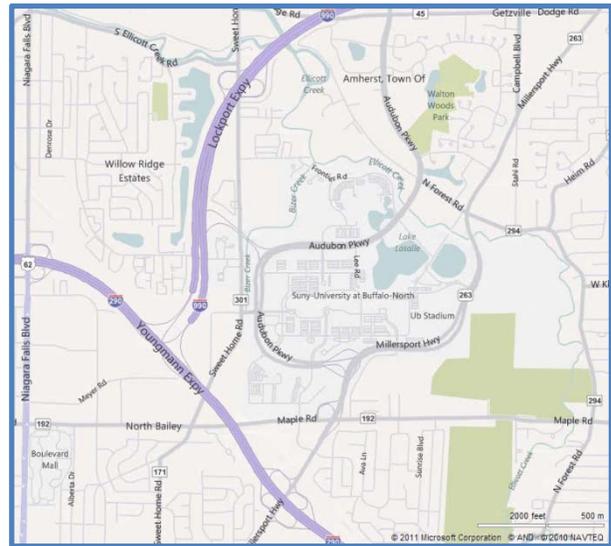
Department of  
Environmental Conservation

Operated and Maintained by: *The Town of Amherst*

*Region 9 Counties: Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming*

## PROJECT LOCATION

The Ellicott Creek basin consists of an area of approximately 110 square miles in Erie, Genesee and Wyoming Counties. The basin is oriented generally east-west, having a length of about 25 miles and a width varying between 1.5 to 7.3 miles.



## **PROJECT DESCRIPTION**

The project consists of the following work:

- Approximately 2.1 miles of creek channel enlargement.
- A reinforced concrete floodwall on the right bank extending approximately 870 feet from Maple Road upstream to a 500-foot levee connecting the floodwall to high ground.
- Three diversion channels having lengths of 9,150 feet, 1,950 feet, 5,850 feet, and the enlargement of the approximately 2,100-foot long existing diversion channel.
- Twenty new flapgates and five gatewells are installed to prevent creek backup during high flood stages.
- Nine storm drains required modification where channel enlargement was performed.
- Erosion protection is provided throughout the project where dictated by hydraulic conditions.

The erosion protection is provided with riprap and grout-filled mats upstream and downstream of large culverts, bridges, at the confluence of major tributaries and diversion channels with Ellicott Creek and other areas along the creek and diversion channels which were particularly susceptible to erosion.

At the upstream end of the project, in the vicinity of Maple Road, a grout-filled mat was placed in an area of high velocity and turbulence caused by the energy dissipating constriction structure.

Recreational facilities include a 5.4 mile bike/hike path, three open space park areas, and a wildlife and recreation pond.

The project required construction of two highway bridges, modifications to the culverts at Creekside Drive, and construction of five pedestrian bridges and a parking lot for the bike/hike path.

The most significant property relocations required by this project are the removal or relocations of one house and two commercial buildings including one fire station.

## **AUTHORIZATION**

Construction of flood protection improvements on Ellicott Creek in the towns of Amherst and Tonawanda, Erie County, New York, was authorized under the 1970 Flood Control Act, the 1974 Water Resources Development Act. The 1985 Supplemental Appropriations Act, and the 1986 Water Resources Development Act.

## **PROTECTION PROVIDED**

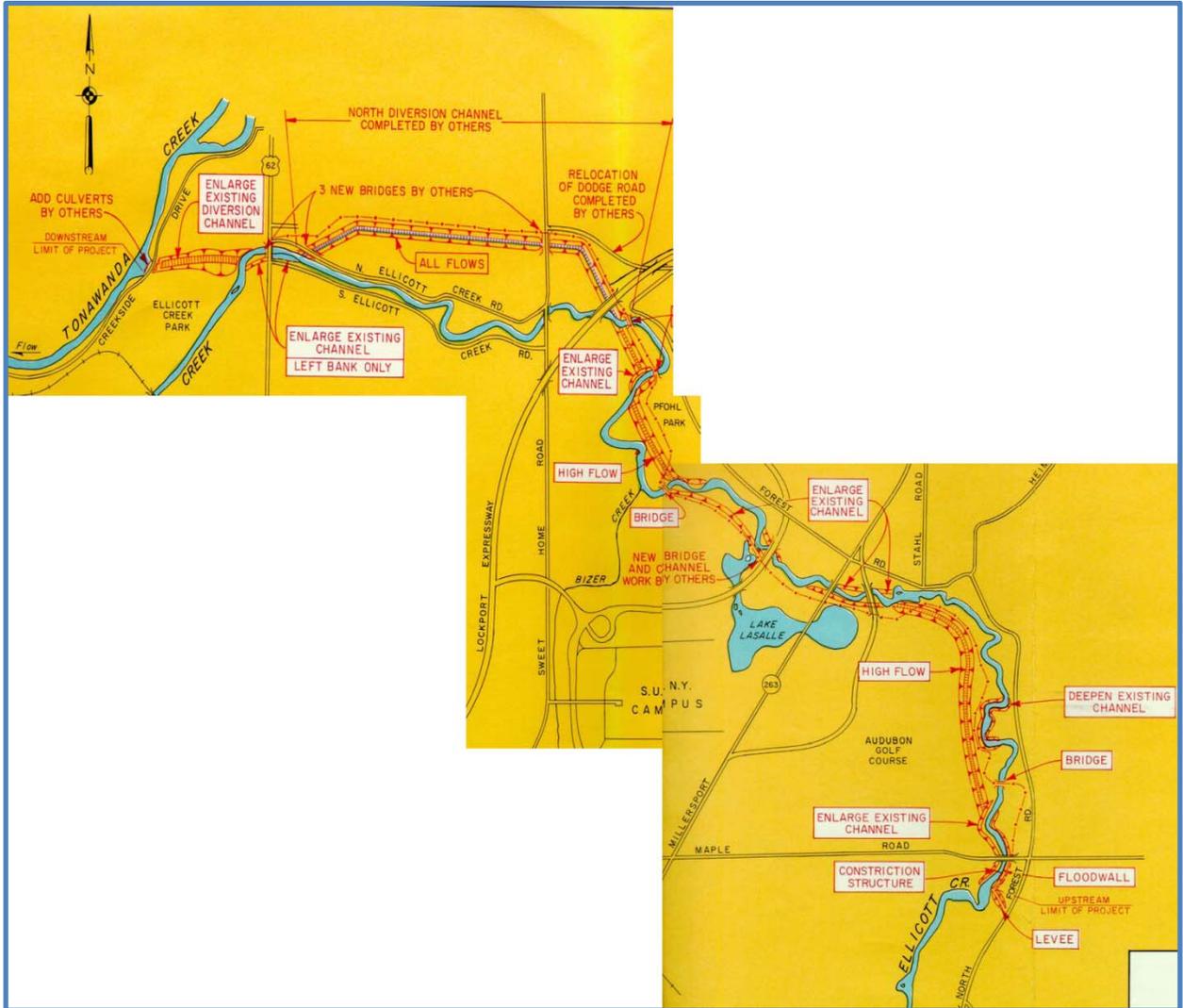
The project was designed to provide protection from floods that have an average recurrence interval of 100 years with a discharge of 17,400 cubic feet per second (c.f.s.). Stream flow data was obtained from records of the United States Geological Survey (USGS) gage located on Ellicott Creek at the Niagara Falls Boulevard Bridge.

## **CONSTRUCTION**

Construction of the project was completed in three stages:

- Stage 1 consisted of work within the approximate limits from Tonawanda Creek to Niagara Falls Boulevard and was initiated by contract in July 1986 and completed August 18<sup>th</sup>, 1987. The prime Contractor was Tri-Delta Aggregates, Inc. Stage 1 was given its final inspection for acceptance in August 1987. The work was performed under the direction of the Buffalo District Corps of Engineers. Total contract cost of Stage 1 was \$967,589.
- Stage 2 included work between Niagara Falls Boulevard and Maple Road and was initiated by contract in August 1987 and completed June 1989. The prime contractor was Cold Spring Construction Company. Stage 2 was given its final acceptance in August 1989. The work was done under the direction of the Buffalo District Corps of Engineers. Total contract cost of Stage 2 was \$5,653,057.
- Stage 2A was initiated in May 1988, completed in October 1989, and consisted of work within the approximate limits from Maple Road to the upstream project limit. The prime contractor of Stage 2A was Herbert F. Darling, Inc. This stage was given its final acceptance in November 1989. The work was done under the direction of the Buffalo District Corps of Engineers. The total contract cost of Stage 2A was \$1,394,533.

## AMHERST - GENERAL PLAN



### AMHERST – BIRD'S EYE VIEW



