



# SYRACUSE CHANNEL NORTH FLOOD DAMAGE REDUCTION PROJECT



*Department of  
Environmental Conservation*

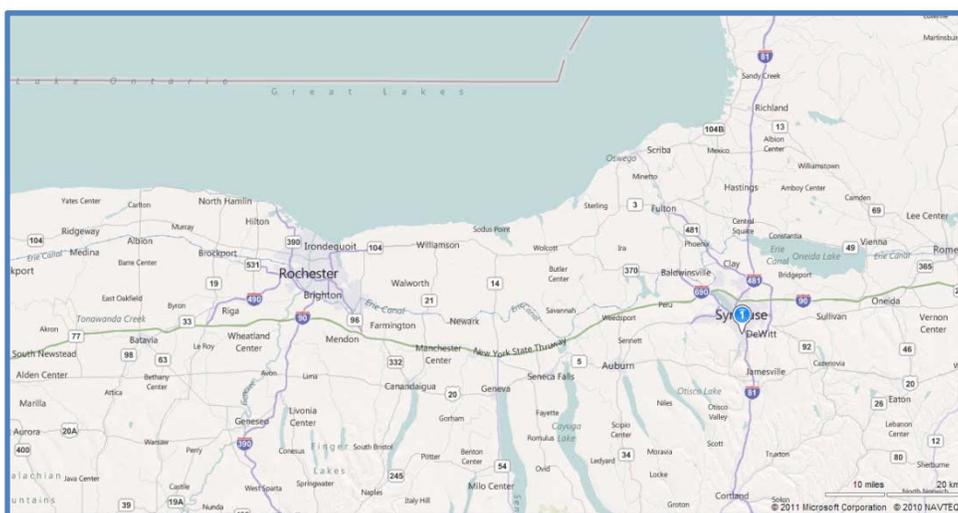
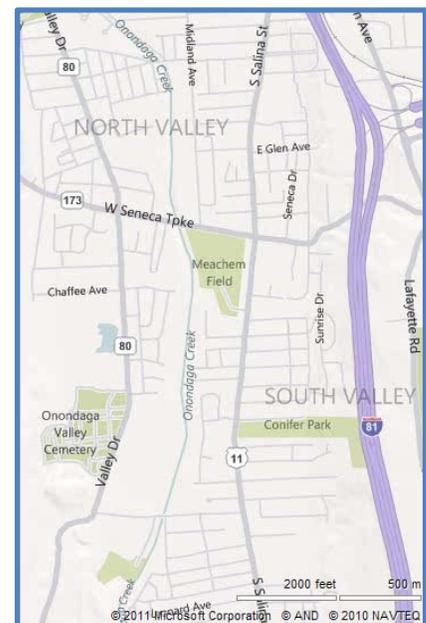
*Operated and Maintained by: New York State*

**Region 7 Counties:** Broome,  
Cayuga, Chenango, Cortland,  
Madison, **Onondaga**, Oswego,  
Tioga, Tompkins

## PROJECT LOCATION

The project consists of a dam and reservoir on Onondaga Creek about 4 miles south of the City of Syracuse and improvement of the creek channel in the southern part of the City of Syracuse.

The dam is located on Onondaga Creek, in the Onondaga Indian Reservation, about 1,700 feet downstream of the confluence of the south and west branches of Onondaga Creek.



Channel improvement is located in the southerly part of the City of Syracuse, and extends from Ballantyne Road, (the upstream limit of the previously improved channel) to Dorwin Avenue which is the southerly limit of the City of Syracuse.

## **PROJECT DESCRIPTION**

The project consisted of the following components:

- Placement of earth rolled-fill.
- Construction of a flood control retention dam.
- A concrete side channel spillway.
- An unregulated automatic outlet.
- Piezometers and settlement gages were placed in the embankment of the dam, and behind the east spillway wall.
- An automatic recording gage was installed in a gage house on top of the dam westerly of the outlet conduit.
- An access road was constructed from Hitchings Road to the west of the left abutment of the dam.

The channel improvement consists of the following:

- Realigning and straightening of the Onondaga Creek channel.
- Constructing earth levees.
- Constructing of a concrete drainage structure.
- A concrete flume.
- A concrete drop structure.
- A steel sheet pile control weir.
- Channel paving.

Highway bridges at Seneca Turnpike and Dorwin Avenue and a footbridge midway between Seneca Turnpike and Ballantyne Road were constructed by the State of New York.

## **AUTHORIZATION**

The Flood Control Act of 1941 (Public Law 228,77<sup>th</sup> Congress, 1<sup>st</sup> session) authorized construction of a project to provide flood protection for the City of Syracuse, New York, substantially in accordance with the recommendation of the Chief of Engineers in House Document No. 846, 76<sup>th</sup> congress, 3<sup>rd</sup> Session.

## **PROTECTION PROVIDED**

The Onondaga Dam and downstream channel improvements are designed as flood control measures to provide additional flood protection for the City of Syracuse, New York. Onondaga Creek meanders through the City of Syracuse and in the southerly part of the City between Ballantyne Road and Dorwin Avenue, the creek prior to improvements was meandering and overflowed at about 1,000 c.f.s. causing damage at frequent intervals.

Improvement of this channel to reduce frequency of damaging floods was necessary but such improvement would eliminate a large amount of valley storage and thus tended to increase the downstream flows. Since a reduction in storage would be made by channel improvements, it was necessary to provide reservoir storage before extending the channel improvement farther upstream of the existing improved channel. The new channel as realigned and improved, now provides a capacity of 6,000 c.f.s. In combination with the reservoir regulation, this provides a high degree of protection to the adjacent area.

The dam has an unregulated outlet with a maximum discharge capacity of 1,270 c.f.s. The maximum discharge from the reservoir in combination with the flows from uncontrolled areas, will not cause serious flooding along the unimproved channel in the area between the dam and the improved channel in the City of Syracuse. The reservoir discharge combined with flows from the uncontrolled area, will exceed the capacity of the improved channel at extremely rare intervals.

## **CONSTRUCTION**

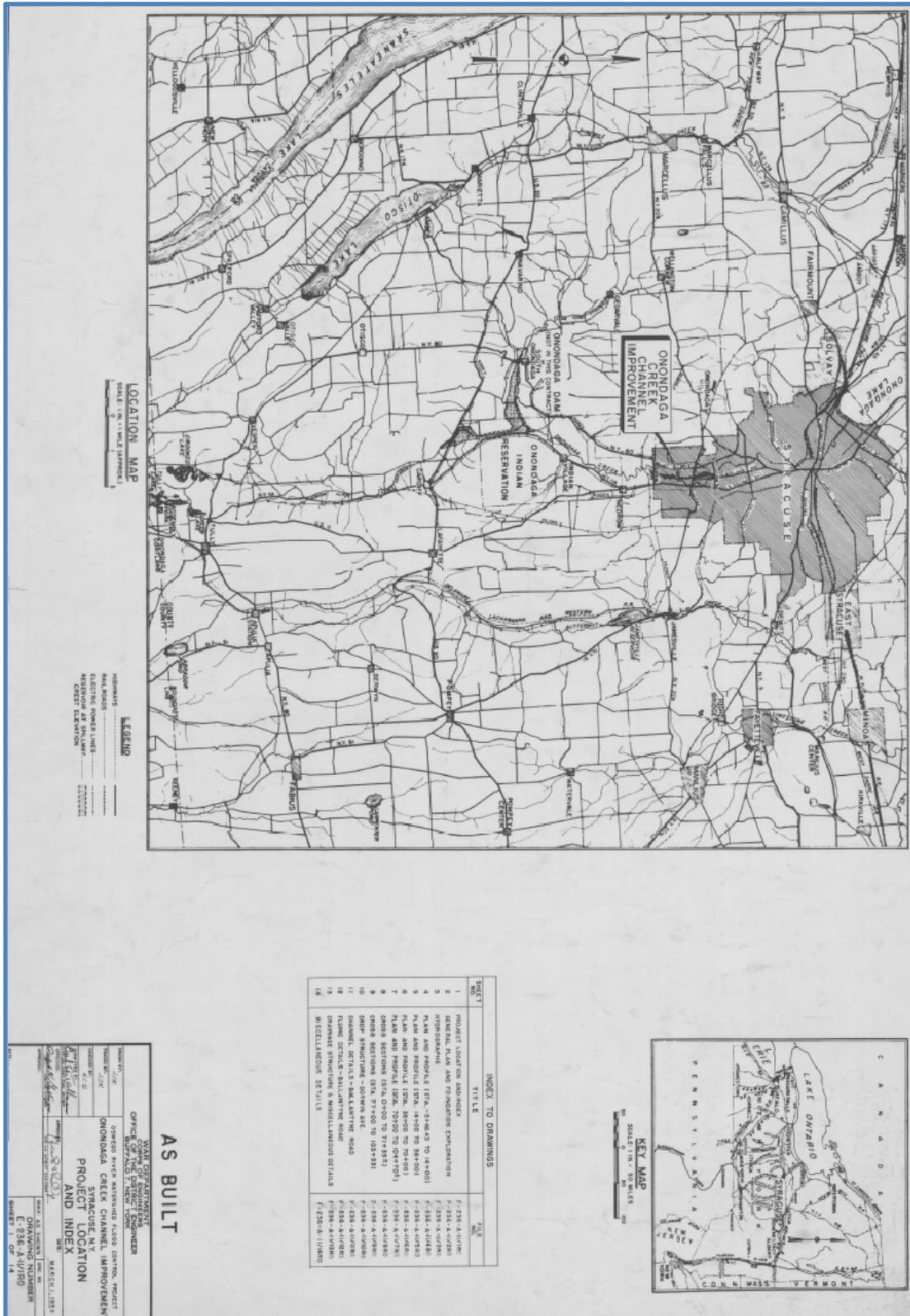
Following is the sequence of construction activities:

- Construction of the earth, rolled-fill, flood control dam with dished side slopes, a concrete side channel spillway, an unregulated automatic outlet, and appurtenant works commenced on May 5<sup>th</sup>, 1947 by contract with S. J. Groves and Son, Minneapolis, Minnesota, and was completed on August 19<sup>th</sup>, 1949.
- Planting of shrubs on the downstream slope of the embankment of the dam commenced on September 16<sup>th</sup>, 1949 by contract with the Saxe Construction Co. and was completed on October 31<sup>st</sup>, 1949.
- Clearing the reservoir area of dead and diseased timber and other snags below elevation 480 commenced during October 1948 and was completed during June 1949. The clearing operations were accomplished by hired labor and rented equipment.

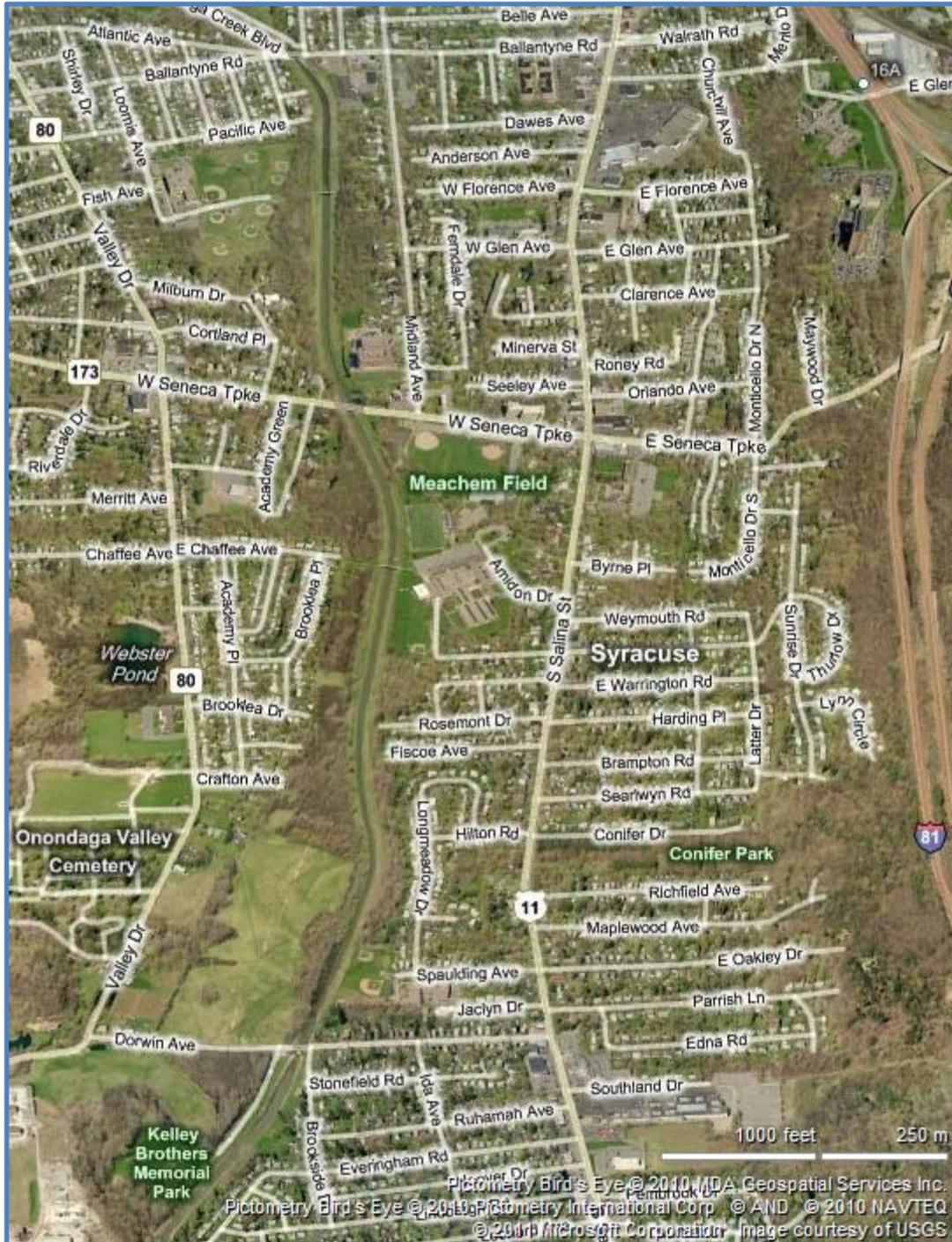
## Syracuse Channel North Flood Damage Reduction Project

- A contract for construction of the access road from Hitchings Road to the west abutment of the dam was awarded to the Central Highway Corp. Contract operations commenced May 3<sup>rd</sup>, 1949 and was completed on September 1<sup>st</sup>, 1949.
- A contract for construction of the flood protection improvements on Onondaga Creek in the southerly part of the City of Syracuse was awarded to the D.W. Winkelman Co. Work began on July 22<sup>nd</sup>, 1949 and was completed on July 6<sup>th</sup>, 1951.
- Construction of a steel sheet pile weir with stone paving commenced on November 28<sup>th</sup>, 1951, and was completed on January 2<sup>nd</sup>, 1952. The steel sheet piling was furnished by the State of New York. The construction of the weir and adjacent stone paving was accomplished by hired labor and rented equipment.

**SYRACUSE CHANNEL NORTH - GENERAL PLAN**



### SYRACUSE CHANNEL NORTH - BIRD'S EYE VIEW



## SYRACUSE CHANNEL NORTH – GENERAL PLAN AND AERIAL MAP OVERLAY

