WELLSVILLE FLOOD DAMAGE REDUCTION PROJECT

Department of Environmental Conservation

Operated and Maintained by: New York State

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

PROJECT LOCATION
The project is located on Genesee River and Dyke Creek in the Village and Town of Wellsville, Allegany County, New York. The Village is located 136 miles above the mouth of Genesee River and 70 miles southeast of Buffalo. The Town of Wellsville surrounds the Village.
PROJECT DESCRIPTION

The project works consist of channel improvements, with control and drainage structures.

The channel of the Genesee River was deepened where necessary to provide uniform bottom grades with bottom widths of 100-135 feet from a point 2,700 feet downstream from Bolivar Road Bridge to the confluence with Dyke Creek, with bottom widths of 100-300 feet to about 5,380 feet upstream of Dyke Creek. There was a major realignment upstream from Bolivar Road to eliminate two sharp bends with other realignments to ease bends. A concrete drop structure was constructed between Bolivar Road and Pearl Street, and steel sheet pile weirs were constructed near the Village line and near the upper limit of the project. These structures are intended to reduce high velocities, and consequent erosion. Bank protection was provided in the vicinities of these structures and at other points where scouring could be expected.

Low levees were constructed in the vicinities of Pearl and State Street, between State Street to upstream of West Dyke Street, and above the upstream sheet pile weir. Existing drainage facilities were altered to provide better entrances into the improved channel and to prevent backflow at high river stages. The channel in Dyke Creek was also deepened to uniform bottom grades and widths of 50–70 feet, with a drop structure at Miller Street. As in the Genesee River, bank protection was provided and drainage structures were altered. A levee was constructed above Miller Street.

AUTHORIZATION

Construction of improvements for flood control on Genesee River at Wellsville, New York, was authorized by the Flood Control Act of 1950 (Public Law 516, 81st Congress) substantially in accordance with the recommendations of the Chief of Engineers in House Document No. 232, 81st Congress, First Session. Rectification of deficiencies to the original project was authorized in two phases. The first phase was authorized in November 1966 and the second phase in June 1975.

PROTECTION PROVIDED

The Genesee River channel was designed for a flow of 21,500 c.f.s. below the mouth of Dyke Creek and 17,300 c.f.s. above the creek. The Dyke Creek channel was designed for a flow of 7,300 c.f.s. The project was originally designed to protect the Village of Wellsville against damage from floods equal to a 50-year discharge in the Genesee River and Dyke Creek, and to reduce damages in the event a larger flood should occur on either. The improvement was extended downstream into the Town of Wellsville far enough to accomplish the lowering of stages in the Village. Subsequent to tropical storm “Agnes”, which occurred in June 1972, new
frequency curves were established. The Genesee River design flow is now equivalent to a 20 year discharge and the Dyke Creek design flow to a 35-year discharge. Peak flows on the two streams do not occur simultaneously. The modifications undertaken by the New York State Department of Transportation on the river and creek are capable of passing the design flows stated above.

CONSTRUCTION

Construction was initiated by contract in July 1956 and was completed in February 1958. This original construction improved the channel from a point 2,700 feet north of Bolivar Road to a point 1,815 feet upstream of the Wellsville, Addison, and Galeton (WA&G) Railroad Bridge. Additional bank protection was placed under contract modifications in June-July 1958 and September 1959. The prime Contractor was Gasparini Excavating Company of Pickville, PA. The project was given its final inspection before acceptance by local interest on August 15th, 1958.

Tropical storm “Agnes” caused extensive damage to the original flood control project at Wellsville. Emergency restoration work was accomplished by plant rental and supply contract, under Public Law 99, 84th Congress, to restore the Genesee River and Dyke Creek channels to their pre-“Agnes” condition. This work involved almost the entire length of the improved river and creek channels. The work accomplished was shoal removal, replacement of compacted embankments and levees and restoration of bank stone protection where required. This work was initiated in June 1972 and was completed in November 1972.

Rectification work was required to improve the original project. Construction was initiated by contract in July 1973 and completed July 1974 by Hull-Hazzard Inc., Syracuse, New York. The work performed under this contract involved channel widening and levee construction in the area between West Genesee Street and the downstream concrete drop structure. Also in the reach of the Genesee River between State Street Bridge and extending approximately 5,050 feet upstream, work involved channel widening, levee construction, placement of additional riprap, and the extension and lowering of a steel sheet pile weir. Dyke Creek work involved channel widening, levee construction and placement of additional stone protection all above Miller Street.

Additional rectification work was further required and construction was started in June 1976 and completed in November 1976 by Frank DiMino Inc. of Rochester, New York. This work involved the extension of the upstream project limits including the construction of a steel sheet pile weir, levee construction and channel realignment and widening, and the placement of
additional stone protection. Dyke Creek work involved channel excavation and placement of additional stone protection between Broad Street and Miller Street.

The New York State Department of Transportation has undertaken two construction contracts, in conjunction with the realignment of Route 17, along the Genesee River and Dyke Creek. The first phase was completed in 1973 and involved the relocation of approximately 1,900 feet of the river, near Pearl Street, toward the left bank to provide room for the new highway, and the construction of a bridge over the river between West Madison and Stevens streets.

The second contract, currently underway, involves highway construction along the river and some channel work between Bolivar Road and the confluence with Dyke Creek. Work along Dyke Creek involves channel relocation, placement of bank protection with the construction of a bridge over the creek near Hanover Creek. This work as been reviewed by the Buffalo District, Corps of Engineers and it will not have a detrimental effect of the existing project.
WELLSVILLE – BIRD’S EYE VIEW