



## Salmon River Flood Control Project East Hampton and East Haddam, CT



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**Client:** U.S. Army Corps of Engineers  
**Owner:** State of Connecticut  
**Value:** \$1,840,963

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The Salmon River Flood Control Project included the construction of an ice control structure on the Salmon River approximately 200 ft above the Leesville Dam in East Hampton and East Haddam, CT. The purpose of the project was to reduce the occurrence of severe flooding of adjacent riverfront residential properties and State of Connecticut Route 151 when ice jams form on the Salmon River as a result of increase river discharge due to runoff or snow melt in the Winter and Spring.

The structure consists of nine concrete Fusiform monoliths spanning the main channel and an associated low relief diversion channel along the Salmon River's eastern bank. Each structure is 12 ft wide, 15-17 ft tall, and anchored to the existing bedrock at the river bottom.

A series of 22 natural boulders (4-5 ft in diameter) were aligned along the crest of an existing gravel bar deposit directly upstream from the structure for additional protection.

Major work tasks involved installation of erosion and sediment controls, construction of the low relief diversionary channel that included the construction of two earthen haul road/cofferdams

across the Salmon River. Charter maintained hydraulic diesel submersible pumps 24/7 to allow the work area to remain "in the dry" for forming and placing of the new concrete foundations.

As part of the work, Charter also constructed a 0.6 acre wetland replication area at the nearby Echo Farms property in Haddam CT. The wetland replication area involved the continuance of an existing wetland habitat by excavation and removal of approximately 3,000 cy of unsuitable soils. Approximately 500 plants and shrubs and 70 trees were planted within the wetland area. Final seeding included using a wetland species diversity mix and top covering of annual rye.

In an effort to mitigate the potential for built-up ice to travel through a diversion channel and bypass the ice control structure, the USACE designed a barrier to be installed at the mouth of the diversion channel.



In September 2007, Charter remobilized to the Site to install 3 pre-cast concrete structures at the mouth of the diversion channel. The structures consisted of pre-cast pipe set vertically and filled with stone and native materials. The structures are 7 ft in diameter and 8 ft in height with a pre-cast concrete cap.