

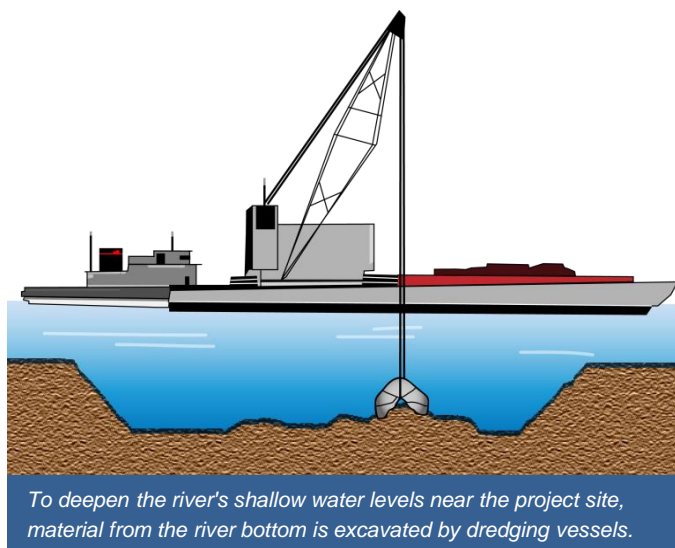
# Dredging Operations

**In order to deepen shallow water levels near the project site, Tappan Zee Constructors, LLC (TZC), conducted around-the-clock dredging operations in the Hudson River from August to November.**

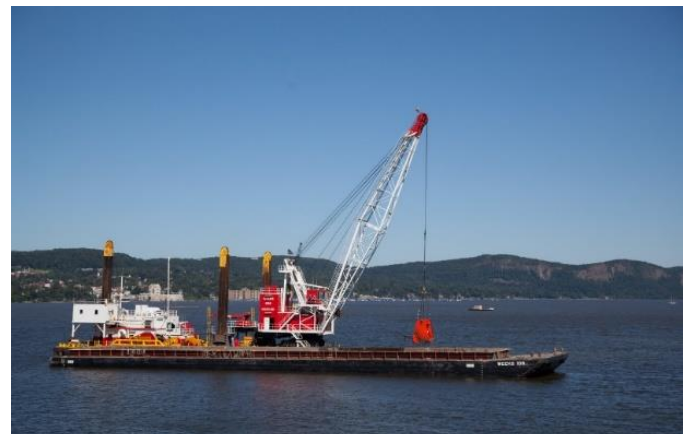
To avoid impacting migration and spawning patterns of local sturgeon populations and other fish species in the Hudson River, dredging is only allowed during a three-month period from Aug. 1 through Nov. 1, each year as needed for the duration of the New NY Bridge project, as outlined in the Final Environmental Impact Statement. In order to conclude the required dredging in such a short amount of time, the operation was conducted 24 hours a day, seven days a week.

Thirty-two scows and other dredging vessels were deployed in the operation in 2013. The dredging deepened the river's shallow water level in the work zone by removing sediment from the river bottom. TZC used specially designed environmental clam-shell buckets to remove the sediment. The buckets are enclosed to minimize sediment release during the dredging process.

Environmental engineers monitored dredging operations to measure water quality. A sophisticated water analysis measured the turbidity, or cloudiness, of the water, as well as other possible contaminants in the water, as required by the New York State Department of Environmental Conservation.



*TZC used specially designed clam-shell buckets during dredging operations from August to November.*



*Dredging operations are conducted nonstop between Aug. 1 and Nov. 1 as needed. Dredged material is processed and disposed of at an offsite location.*

The dredged sediment was previously tested for pollutants, processed and properly disposed of at approved offsite locations.

After dredging operations were completed, TZC crews began "armoring" the dredge sites. This helps maintain water quality for the river's marine life. The armoring consists of a two-foot thick layer of sand and stone to ensure that further sediment is not stirred up by passing vessels.