

Neversink River East Branch

MANAGEMENT UNIT 9

Summary of Post-Flood Recommendations

Intervention Level	Passive restoration of the bank erosion site between Station 32380 and Station 32170. (BEMS NEB9_32100)
Stream Morphology	No change.
Riparian Vegetation	No change.
Infrastructure	No change.
Aquatic Habitat	No change.
Flood Related Threats	No change.
Water Quality	None.
Further Assessment	Investigation of upslope drainage conditions at BEMS NEB9_32100

Stream Channel and Floodplain Current Conditions

The following description of stream morphology is the result of a survey conducted in December, 2011. “Left” and “right” references are oriented looking downstream, photos are also oriented looking downstream unless otherwise noted. Stationing references, however, proceed upstream, in feet, from an origin (Station 0) at the confluence with the Neversink Reservoir. Italicized terms are defined in the glossary.

The East Branch enters EBMU9 just downstream of the confluence of Erts Brook. The stream is controlled by the left valley wall throughout most of this management unit, but has good floodplain connectivity on the right.

In 2010 relict bridge abutments were documented serving as revetments on both sides of the stream at Station 34860. (See picture B174 on Page 5 for pre-flood condition) The abutments consist of stacked rock and are approximately 12-feet in length. The right abutment experienced severe scour during high flow events since 2010 and is now in poor structural and functional condition. The left abutment remains in good structural and functional condition.



Severe scour at former location of bridge abutment on right bank. (IMG1592)

In 2010 an old wooden dam was documented at Station 34460. During the December 2011 survey there was no evidence remaining of the dam or the supporting large boulders.

Erosion on the right bank begins at Station 32380 (BEMS NEB9_32100), continuing approximately 210-feet to Station 32170. This erosion is caused by hydraulic scour during high flows, which entrains the alluvial sediments and till, exposing the root structure of the vegetation present. Some groundwater seeping was also observed on the slope failure, and indication of possible drainage issues somewhere upslope.

Significant cobble and boulder deposition at the toe of this bank, as well as establishment of sedges and forbes, indicate that it is possible for this bank to stabilize without treatment (*passive restoration*). However, it is recommended that this site be monitored for changes in condition. Furthermore, an investigation of the drainage patterns up gradient from this eroding bank segment is recommended to identify possible sources of surface water aggravating the stream-side slope failure in this location.



Slope failure on the left bank. (IMG1603)

Several root wads were observed obstructing flow in a side channel in the left floodplain from Station 32000 to Station 30800. These root wads could be removed and re-used in an assisted restoration project of an eroding bank segment along Denning Road in Management Unit 8.