Neversink River Main Branch

MANAGEMENT UNIT 9

Summary of Post-Flood Recommendations

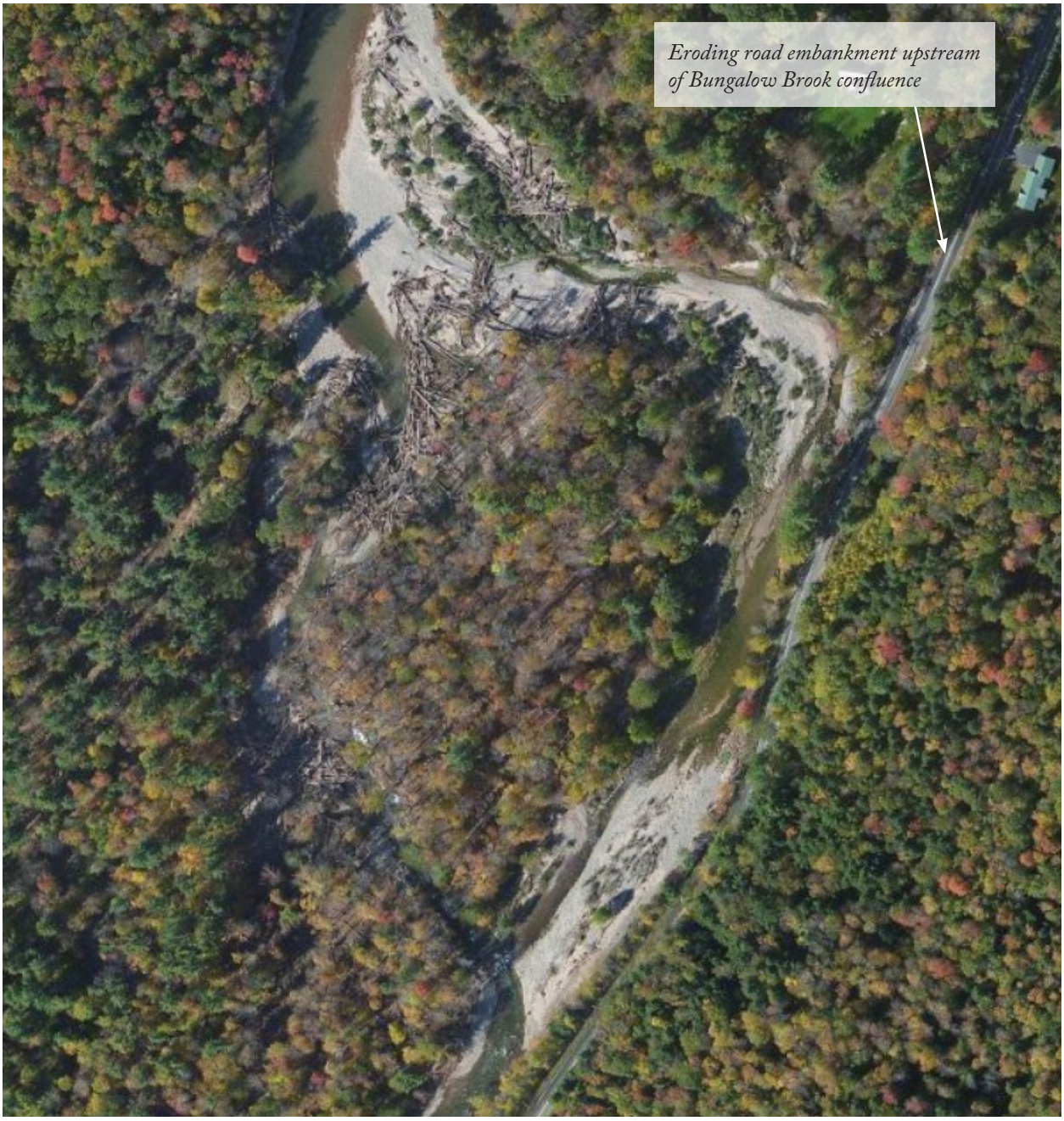
Intervention Level	Full Restoration
Stream Morphology	No change.
Riparian Vegetation	No change.
Infrastructure	No change.
Aquatic Habitat	No change.
Flood Related Threats	Address erosion of Cty Rd19 embankment along Bungalow Brook.
Water Quality	None.
Further Assessment	Include MBMU9 in comprehensive Local Flood Hazard Mitigation Analysis of Claryville MUs.

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 accumulation of bedload and large woody debris at the outside of the meander at Station 26500 increased significantly following TS Irene. This aggradation is likely controlling the channel filling observed upstream, adjacent to Tannery Flats in MBMU10. Options for how to best manage this deposition should be evaluated as part of a comprehensive Local Flood Hazard Mitigation Analysis to investigate hydraulics and sediment transport in the stream corridor, from Station 10500 through the Halls Mills covered bridge downstream at Station 17350. The purpose of the analysis would be to develop a comprehensive solution for reducing flooding threats to this relatively dense population center of the Neversink Valley.

As a result of the accumulation of wood and bedload at Station 26500, the flood chute through the right floodplain became the primary channel, and bedload has accumulated in the left channel. What is now the primary channel on the right divides into multiple threads in the forested floodplain, most of it reemerging to join the left channel at Station 24400.



Accumulation of large woody debris diverts most of the flow through the floodplain

The severe floodplain chute channels, discussed in the Addendum for MBMU10, that eroded through the Tannery Flats reemerge around Station 25800, just upstream of the confluence of Bungalow Brook. Just upstream of this confluence, the embankment of County Road 19 as it runs adjacent to Bungalow Brook eroded significantly during TS Irene, probably exacerbated by sheet flow across the road and down the embankment, as the confinement of the valley wall on the left pinches any floodplain flow back into the mainstem of the Neversink. Many private crossings from the road into the flats are damaged when flooding overwhelms Bungalow Brook. It is recommended that an analysis of the volume of flow Bungalow Brook is currently carrying under different flood conditions be included in the comprehensive hydraulics analysis discussed above.

The flood chutes through the left floodplain starting at Station 23100 became more pronounced as a result of TS Irene, and currently take a much greater portion of the flow. However, no infrastructure or property threats were observed, and previous recommendations for preservation of these reaches as sediment storage areas remain unchanged, despite modest erosion of the till/outwash terrace on the left valley wall.

Flood chutes through the left floodplain enlarged following Irene.