

Section 5.2

Infrastructure Recommendations

As previously mentioned in this Plan, managing the interface between roads and other infrastructure and streams often sets the stage for the stability of an entire stream network. Undersized bridges and culverts and road encroachments can provide the point at which a stream begins to unravel, leading to negative consequences upstream and downstream that often extend well beyond the rights-of-way associated with the infrastructure (i.e. into private property). On the other hand, properly-sized bridges and culverts and well-managed stream-road intersections can allow the stream and road network to co-exist without adversely impacting each other.

Due to this critical relationship, the Program Team met with each of the four primary infrastructure managers (Neversink Highway Department, Denning Highway Department, Ulster County Department of Public Works and Sullivan County Department of Public Works) in autumn 2010. The Team and its hosts visited various “hot spots” to understand points of concern for these departments. Below is a summary of specific sites visited during the field meetings. An added benefit to these meetings is the wealth of knowledge the staff conveyed about the Neversink River and its tributaries through their first-hand management of this resource during all types of weather.

Location	Description of Concern	Proposed Solutions
<i>Sullivan County Department of Public Works</i>		
1. Sullivan County Covered Bridge No. 192 C	Bridge piers are being surrounded by backwater due to scouring	Analysis of hydraulic geometry; design and install footing protection for piers and approach, adjoining banks as necessary.
2. County Bridge No. 189	Split channel sending main flow toward new bridge at oblique angle	Analysis to establish channel dimensions for effective sediment transport upstream and through the bridge. Riparian buffer and stream habitat improvement. Projected demonstration project site.
<i>Ulster County Department of Public Works</i>		
1. Frost Valley Road	Road washes out at tourist bend; rebuilt most recently after Oct. 1 flood	Investigate alternative culvert design for tributary, channel modifications for WB Neversink.

<i>Town of Neversink Highway Department</i>		
1. Hunter Road	River flow backs up to road level and in extreme high water flows down road when bridges can't handle capacity.	Analysis to establish channel dimensions for effective sediment transport upstream and through the bridge. Reestablish single thread channel.
2. Aden Hill Site #1	Bottom right of NYC land; LWD is moving toward bridge.	Establish LWD management protocol/program.
3. Aden Hill Site #2	Pipe below Hanofee Road; debris clogs pipe forcing water to cross the road, collapsing and eroding the headwall.	Headwall repair planned for summer 2011.
4. Aden Hill Site #3	Gravel and trees in stream are reducing the flow and pipe capacity of the pipe past Hanofee Road	Establish LWD management protocol/program.
<i>Town of Denning Highway Department</i>		
1. Denning Road 1/2 mile from Straus Center entrance	Small creek floods road in highwater events	Hydraulics analysis to determine alternative mgt strategies.
2. Denning Road [enter location]	Big slide deposits sediment	Over the years, it has tried to fix itself; currently washing out.
3. Small bridge before NYS land	Undersized culvert	Replacement with concrete box culvert planned for summer 2011.
4. Erts Flat (across from large pine with cabins)	Inundated road in high water.	Hydraulics analysis to determine alternative mgt strategies.
5. Intersection of Red Hill and Denning Road	Three tributaries meet (Erts, Flat and Riley Brooks); road inundation in high water.	Hydraulics analysis to determine alternative mgt strategies.
6. Saw Mill Road	Water rising over berm behind Lutermans (Windsong); former stream channel is trying to come into the road where it used to run in the 1950s.	Hydraulics analysis to determine alternative mgt strategies.
8. Denning Road Temporary Bridge	Installed in 2005 by Ulster County to provide emergency access; is slated for replacement 2012	Design could address Saw Mill stream channel issues?

