

3.9 Public Infrastructure

The Broadstreet Hollow valley, like so many others in the Catskill Mountains, provides only a narrow strip of developable land between the stream and the valley walls. As a result, houses and roads are built in very close proximity to the stream, and often require many bridge crossings to negotiate the twists and turns of the stream and valley. This presents a variety of challenges for maintaining this important infrastructure, both for Town and County Highway Departments, as well as for private landowners who rely on this network of roads and bridges for their safety and quality of life. The Broadstreet Hollow Road, its bridges and culverts, are inspected and maintained by the Town Highway Departments of Shandaken and Lexington, and the County Highway Departments of Ulster and Greene.

Stream assessment conducted in 2001 sought to document many types of physical features in the Broadstreet Hollow valley, including not only stream features but infrastructure as well. Personal meetings with representatives from each of the Town and County Highway Departments helped make this summary complete. Summary information includes spatial distribution of features such as culverts and revetments, but also specific locations that may be problematic, such as locations where road embankments are eroding or specific revetments are failing. Section 4.0 summarizes this information at the Management Unit scale, dividing the stream into sections and making specific recommendations for each of 19 units in the Broadstreet Hollow main stem. This information is summarized in tables in Section 5.0, for quicker reference to specific categories of recommendations, including an Infrastructure and Private Property section, describing road, culvert and bridge conditions, potential problem areas and suggested assessments or solutions, and a History of Streamwork section devoted to assessing specific lengths and types of revetments, their locations and condition, and recommended actions to address stability or function problems.

The Broadstreet Hollow Road extends from NYS Rte. 28, up into the valley approximately 3.5 miles to NYS DEC land. The road is maintained (though not owned) by Town Highway Departments, with maintenance including snow removal, roadside ditch and culvert management, and any repair work needed to the road, guiderails or embankments as needed (on stream banks as well as hillsides adjacent to the road). These departments perform more stream bank stabilization work, including assessment, design, construction, and repair, than any other agency or organization. Most of this work is performed from the road surface, rather than in or through the stream channel. With nearly 4,500 feet of revetments on Broadstreet Hollow Road alone, including sheet piling, stacked rock wall, boulder rip-rap, dumped rock fill, log cribbing, and gabion baskets, and an additional 2,000 feet of berms of various materials, these departments have their hands full.

The main Broadstreet Hollow road crosses the stream 4 times in about 3 miles, with two County Bridges in each of Greene and Ulster Counties (one of the Ulster County bridges was constructed by the County, and turned back to the Town of Shandaken to maintain). The Timberlake Road crosses the stream once in Greene County. Each bridge is identified and tracked using County-wide numbering systems. Typically, the Town maintains bridges with less than 25-foot span, and the County maintains bridges with greater than 25-foot span, though this is often decided on

a case by case basis. The Broadstreet Hollow stream passes under one State Bridge, carrying NYS Rte. 28, near the mouth of the stream (see Section 4.2.18, MU 18). Bridges are not posted if they can carry all legal loads, and the State regularly inspects bridges to assess load bearing capacity and safety.

Table . Summary of Town, County and State Bridges crossing Broadstreet Hollow Stream.

Bridge # (BIN)	BSH MU#	Town/Cty	Road	Year Built/ Rehabilitated	Length (ft, road)	Span (ft, stream)	Load Posting
3-20122-0	4	Lex/Greene	BSH	1936	40	28 – 32	None
3-20123-0	2	Lex/Greene	BSH	1996	51	30 – 40	None
3-20124-0	4	Lex/Greene	Timberlake	1988	32	24+	None
2-22457-0	12	Shan/Ulst	BSH	1987	unknown	40 - 48	None
3-34671-0	12	Shan/Ulst	BSH	2000	unknown	20+	None
unknown	18	Shan/Ulst	NYS Rte. 28	unknown	unknown	unknown	None

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