
Management Segment 2

C.D. Lane Park to Hensonville CR 65



Management Segment 2 begins at the outlet of the C.D. Lane Park Flood Control Structure and continues 3.7 miles westerly along CR 56 and 40. The segment extends through the Hamlet of Maplecrest and ends at CR 65 in Hensonville.

The segment contains twelve seasonal tributaries and the stream is spanned by five (5) county bridges. The contributing drainage area is 9 mi² at the flood control structure, and increases to 14 mi² near the end of the stream segment at CR 65. A USGS crest stage gage, in operation since

1955, is located in the lower section of the segment near the CR 40 bridge outside Hensonville. Importantly, the lower reach also contains a monitored Reference Reach. Stream segment 2 is located in Valley Zone 4, which is dominated by a Type V valley with a moderately steep valley slope of 1.3%. The landform includes lateral and terminal moraines, alluvial terraces, and floodplains.

During the initial Phase I Inventory and Assessment conducted in 1997, MS-2 had the least amount of measured stream bank erosion (400 feet of erosion over 7 miles of stream length) and was considered to be the most stable segment of the entire Batavia Kill corridor. The dominant stream type is B3c, with small segments of C4, G and F stream types also present. The reference reach just above the hamlet of Hensonville was classified as a B3c and contains seven monumented cross sections which have been monitored by the GCSWCD and the NYCDEP SMP since 1997. Although the segment exhibits numerous signs of past modifications to the stream channel and floodplain, the stream has apparently adapted to the significantly modified hydraulic influences on the stream as a result of the flood retention structure at CD Lane Park, and appears to be highly stable. The stream segment contains a total of nine monitored cross sections which the GCSWCD has used to observe the status of the channel's stability.

During the assessment of the segment, it was apparent that both the stream's form and function was strongly influenced by the upstream flood control structure. While the entire Batavia Kill corridor has been impacted to some extent by the flood control project at CD Lane Park, the effect of this structure on the channel's shape (and therefore its ability to transport both water and sediment) is most readily apparent in MS-2. A review of aerial photographs comparing pre-dam with post-dam stream condition shows a distinct difference in sediment storage within the segment (**Figure VI-19**). In the 1959 photo (top), numerous point bars, mid channel gravel bars and several side bars can be seen. This is characteristic of an active alluvial system with gravel and cobble being stored temporarily

on their journey of transport from the headwaters to the Schoharie Creek and Schoharie Reservoir.



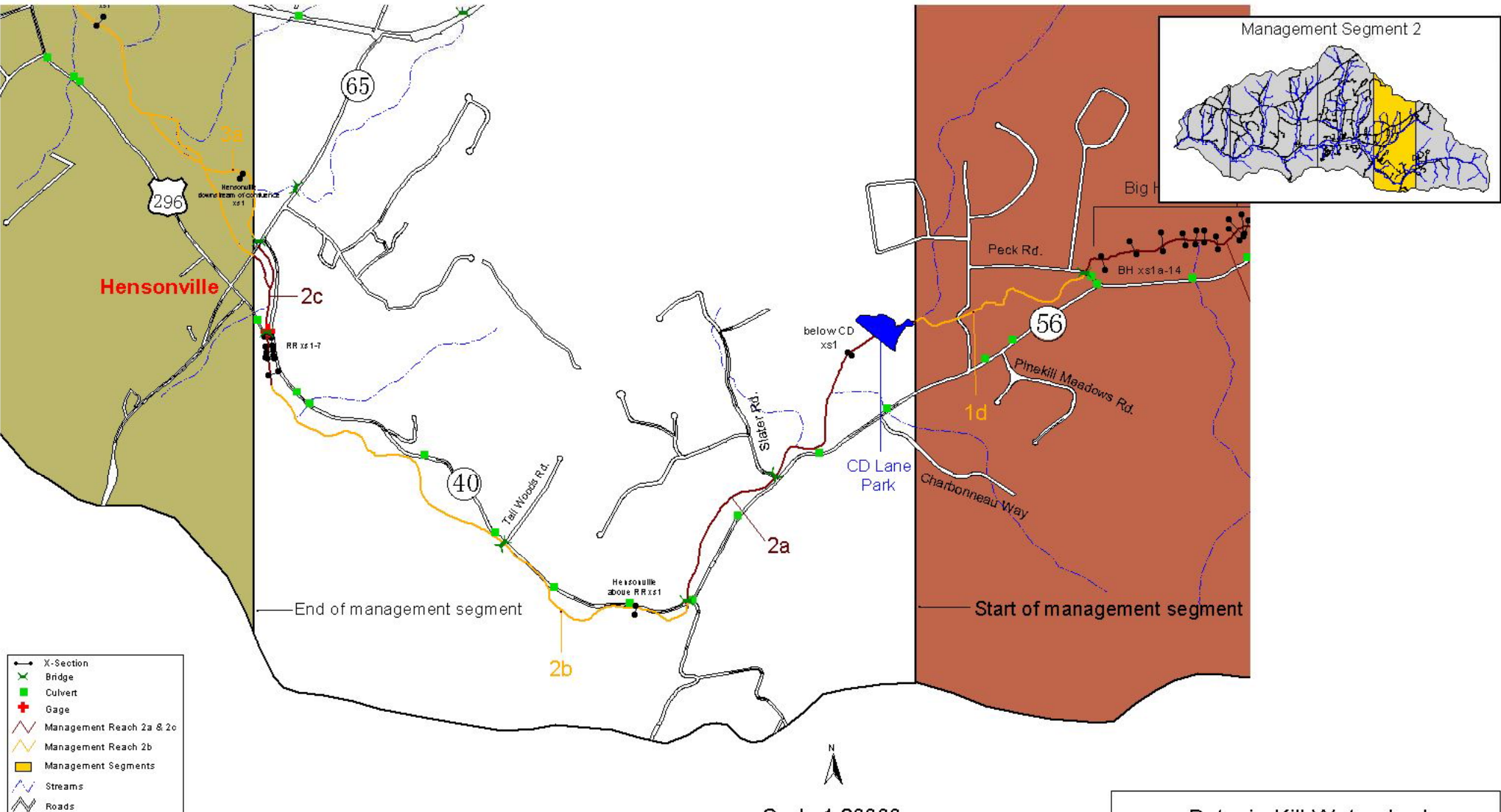
Figure VI-20: Review of aerial photographs from 1959 (top) and 2000 to assess flood control impacts on stream form and function.

By 2000 (bottom photo), these depositional features are notably absent, and the riparian vegetation has grown in streamside areas that were once too active to be colonized by vegetation. The absence of in-channel sediment features (such as point bars) is a classic response to impoundments because they capture and trap the natural sediment supply from above. The aerial photographs also indicate a clearly discernable change in overall channel stability. In the 1959 photo, the lack of riparian vegetation and active erosion can be seen in several areas. Because the flood control dam has limited higher flows through the segment, the channel is experiencing very little streambank erosion or other adjustment processes.



Figure VI-21: Riparian vegetation to the stream's edge.

As seen in **Figure VI-21**, the channel has good riparian vegetation and a stable and well imbricated streambed. The willows seen in the photo have colonized a depositional feature that is no longer actively scoured because CD Lane Park is holding back flows that would mobilize the sediments. MS-2 was further sub-divided into three (3) reaches to facilitate data collection and analysis (**Map VI-3**). In the following sections, the GCSWCD has summarized the stream condition, on-going stream processes, and recommendations for this segment.



Data Sources: Hydrography-NYCDEP, digitized from USGS Quad and SCS soil Survey maps 1993, edited by GCSWCD to show only streams found on USGS topo quads.
 Watershed Boundary-NYCDEP, derived from USGS topography 1965.
 Bridges-GCSWCD, data collected using GPS unit.
 Roads-Greene County Real Property Tax.
 Gages-GCSWCD, derived from latitude/longitude of USGS gages.
 Village/Hamlet-GCSWCD, derived from USGS topographic map .tif file.
 Management Segments & Reaches-GCSWCD, based on management segments and reaches detailed in Batavia Kill Stream Corridor Management Plan.
 Map produced by Greene County Soil & Water Conservation District, January 2002.
 Note: GIS data are approximate according to their scale and resolution. They may be subject to error and are not a substitute for on-site inspection or survey.

**Batavia Kill Watershed
 Segment 2 Management Reaches**
 Map VI-3
 Greene County Soil & Water Conservation District
 Batavia Kill Stream Corridor Management Plan

Reach 2a (CD Lane Park Flood Control Structure to Intersection CR 40/56)

Reach 2a begins at the outlet of the CD Lane Park Flood Control Structure (FCS) and continues 1.17 miles to the county bridge (No. 3-30286-0) at the intersection of CR 40 and CR 56. The reach ranges in drainage area from 9.4 mi² to 11 mi² and includes six unnamed intermittent tributaries which contribute to the reach. The reach is located in Valley Zone 4 and has an average valley slope of 1.3% (**Figure V-12**).

Channel Morphology/Stability:

As noted earlier, the entire segment is highly stable due to the influence of the C.D.Lane dam on stream flows and their ability to transport sediment. During the 1997 Inventory and Assessment, reach 2a exhibited minimal streambank erosion. On the watershed scale, reach 2a exhibited the third lowest erosion of all 21 management reaches. From a stability perspective, reach 2a is nearly as stable as a reference reach (a model reach for stability) by the GCSWCD and the NYCDEP SMP. While reach 2a has several areas that have been historically altered by rip-rap, channelization (straightening), and construction of floodplain berms in localized areas, these activities were associated with past protection efforts prior to construction of the flood control dam.

The channel has been classified as a B3c at the FCS outlet which transitions into a C stream type in the area above Slater Rd. The channel transitions back into a B stream type below Slater Rd. with a berm along the left side of the stream cutting off the channel from its floodplain. The majority of the reach has a low sinuosity and extensive channel and floodplain modifications. Immediately below the FCS, the Batavia Kill essentially has no sinuosity for the first several hundred feet. It is a constructed channel that was designed to accommodate the discharge from the structure. It has a floodplain, and is not entrenched. Then, to Slater Road the stream exhibits the highest sinuosity present in reach 2a as it meanders across the Hitchcock farm. Just below Slater Rd., a floodplain berm was constructed at some time in the past. The berm is located on the left bank, at this point the stream begins to become more entrenched. Between Slater Road and the bottom of the reach, entrenchment is moderate, but does not appear to be impacting stream stability. From Slater road to the bottom of the reach, sinuosity is very low.

A single monumented cross section was installed below the CD Lane Park FCS for classification purposes in 1998 and was subsequently surveyed again in 2000 to determine if any stream changes had occurred as a result of the September 1999 flood event. (**Figure VI-23**). The cross section monitoring indicated that the channel has achieved a stable morphology which accommodates the modified water and sediment discharges from the FCS. Minimal erosion during the monitoring period validated the GCSWCD observation that the reach is highly stable.

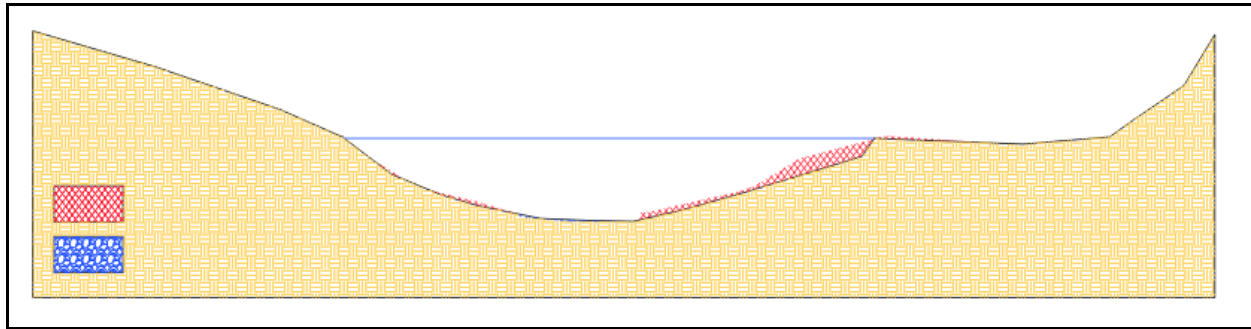


Figure VI-22: Overlay of 1998 and 2000 cross sections taken below CD Lane Park Flood Control Structure.

Red = erosion. Blue = deposition

While not physically measured, during the assessment period the GCSWCD has noted active incisement of several of the smaller tributaries which contribute to the reach. The intermittent tributary that enters from the base of Thomas Cole Mountain (**Figure VI-23a, photo G**) and the tributary that enters from the north just below the dam (**Figure VI-23a, photo C**) both are to be actively degrading (downcutting). The tributary from Thomas Cole is especially extremely active below CR 56. The tributary passes through the Hitchcock property where it has incised substantially. The channel's banks have no cover and are mowed to their tops. Monitoring on the main stem Batavia Kill above the confluence has shown no vertical degradation. The vertical instability of the tributary is believed confined to the tributary itself.

Riparian Condition:

The riparian community in reach 2a consists of moderate to low density mixed deciduous/coniferous overstory, with a brush/grass understory. The entire length of the reach is characterized by extensive growth of sedges and other herbaceous plants within the active channel and on the lower streambanks. Several sections of the riparian buffer are regularly mowed, but these activities do not appear to be having an impact on channel stability. The stream riparian community immediately below the dam consists of highly dense grasses and sedges with some low shrub growth (**Figure VI-23, photo A,B,C,D,E,F,G**). Between the dam and Slater road, the reach is dominated by herbaceous growth, with limited areas of forest. While the reach has excellent riparian vegetation from a stability standpoint, much of the reach exhibits fair to poor conditions in regards to buffer species which provide stream cover and thermal benefits (**Figure VI-22**). The lower reach transitions to a higher density of woody growth, with trees and shrubs supplementing the herbaceous communities. During the assessment phase, the GCSWCD



Figure VI-24: While grasses & forms provide stability, poor overhead cover reduces habitat value

compared aerial photographs over a 41 year period from 1959 to 2000 which indicated that the riparian zone has remained essentially the same (**Figure VI-25**).



Figure VI-25: Aerial progression from 1959 (left), 1980 (middle) and 2000 right, note that the riparian condition has essentially remained the same over 40 years.

Water Quality Impacts:

During the assessment period, the GCSWCD did not note any priority water quality impacts within the management reach. In regards to turbidity, no clay exposures were noted in either the streambank or streambed. The contributing tributaries may be a source of suspended sediments, but their impact is not thought to be significant at this time. The most significant source of turbidity within the reach may be associated with roadside drainage. The section of CRT running along the reach has several steep sections with narrow shoulders and maintenance of stable roadway ditches is difficult. The GCSWCD has applied to the Catskill Watershed Corporation for a Stormwater Retrofit Program grant to address this source of turbidity.

There are several agricultural operations within the reach but they do not appear to have any impact on water quality. Only one operation involves animal production, with beef cattle being raised. The GCSWCD has not observed any agricultural impacts, but is currently discussing participation in the Watershed Agricultural Program with the farm operators.

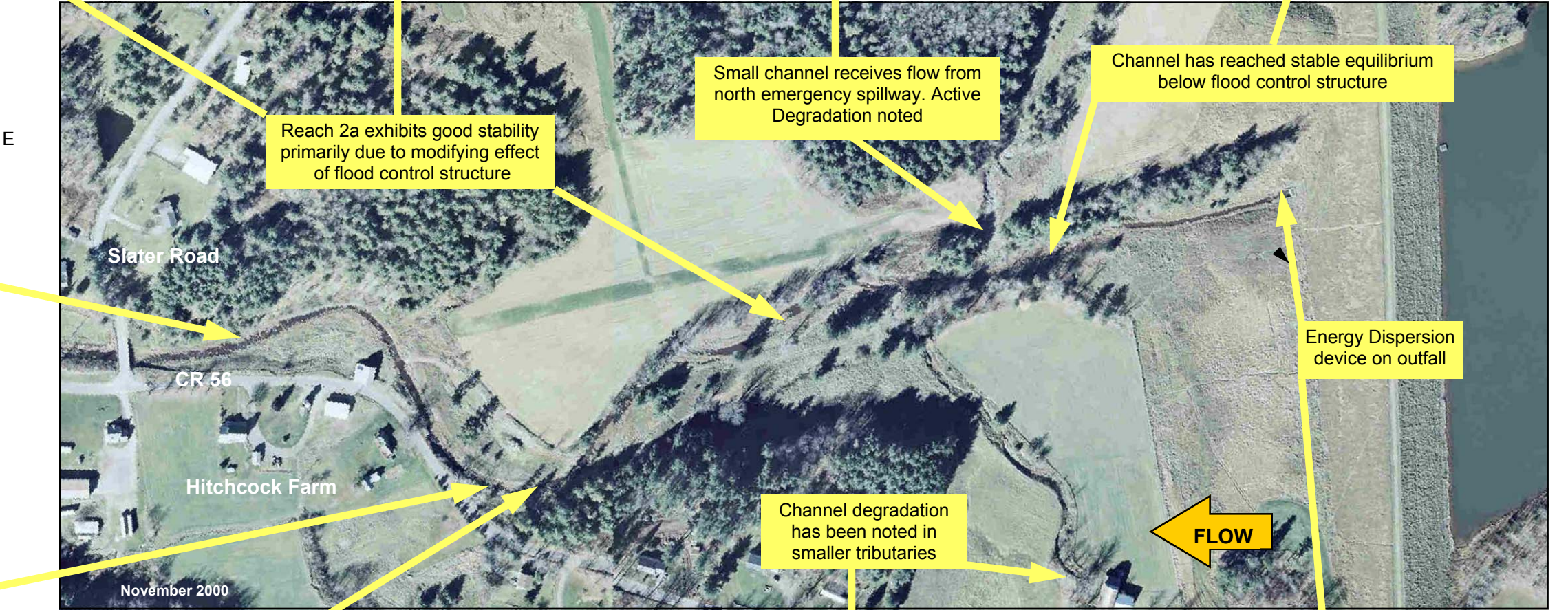
Infrastructure:

The central infrastructure feature within the reach is the outfall for the C.D.Lane flood control structure (**Figure VI-23a, photo I**) In the District's initial assessment of the reach, the primary concern was related to the typical "clear water" effects seen below similar dam structures (**see section V-C**). The completion of the flood control structure in 1976 effectively created a large a trap for sediment which significantly reduced the stream's sediment supply.

The reach also contains two (2) county bridges and a short segment of CR 56 which runs adjacent to the stream. The upper bridge, at Slater Road, is more than adequately sized for the modified flows from the flood contro structure. During flood events, the bridge easily passes its flow (**Figure VI-23b, photo E**) and the bridge span is large enough to have allowed for development of an effective bankfull channel under the bridge's span. Streambank stability upstream of the bridge is influenced by older rip rap. The lower bridge, at the bottom of the reach, also does not appear to be impacting the stream stability. Both bridges easily pass the reduced sediment load that is characteristic of this reach, and both have adequate hydraulic openings to pass the full range of discharges.

Condition Summary

This reach is highly stable, although not necessarily naturally stable. While there is evidence of past disturbances and instabilities, the GCSWCD strongly believes that their construction was to enable farm and residential use of the floodplain prior to the dam's construction. The Batavia Kill has adjusted to its reduced sediment supply and streamflows and has limited streambank erosion or bed degradation. In comparison with the overall Batavia Kill stream corridor, the riparian buffer area is in good condition.





A



B

Note in-channel and riparian vegetation promote stability. Additional woody vegetation would improve habitat



C



D



Right floodplain compensates for berm on left bank

FLOW



E

Channel at near bankfull conditions after flood event

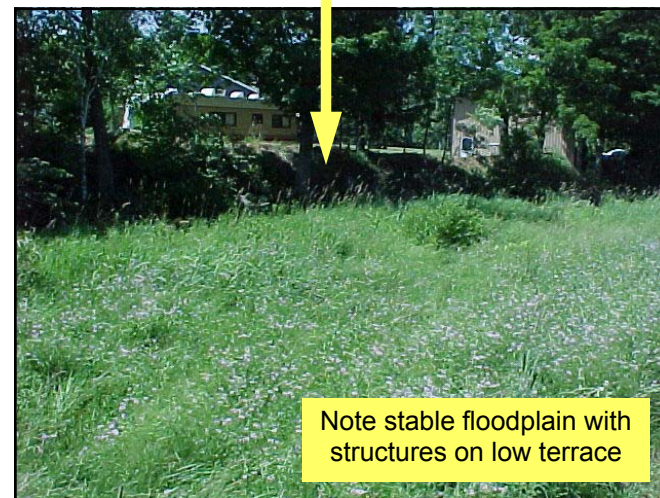


F

Riparian buffer enhancements could improve fisheries habitat. Note Japanese knotweed in front



G



H

Note stable floodplain with structures on low terrace



I

Side channel berms increase stream entrenchment

Table VI-5: Recommendations Reach 2a (CD Lane Park FCS- Intersection CR 40/56)	
<i>Intervention Level</i>	Protection
<i>Stream Morphology</i>	<ol style="list-style-type: none"> 1. Discourage in-stream alterations such as gravel mining and stream planform alterations which may promote increased instability in the reach. Prevent further entrenchment of the lower reach by any activity that would cause incision or fill the floodplain elevation. 2. Visually monitor the observed incision of tributaries in the reach.
<i>Riparian Zone</i>	<ol style="list-style-type: none"> 1. Implement riparian planting of trees and shrubs to improve stream cover. Area immediately below dam presents an opportunity to gain thermal benefits for habitat. 2. Investigate landowners participation in the federal CREP program to provide improved buffers. 3. See general recommendations
<i>Water Quality</i>	<ol style="list-style-type: none"> 1. Investigate landowner participation in Watershed Agricultural Program. 2. Seek funding, and implement stormwater BMPs along CRT 56 and Slater Road to reduce turbidity and NPS loading. 3. See general recommendations
<i>Infrastructure</i>	See general recommendations - Bridge Maintenance
<i>Habitat</i>	<ol style="list-style-type: none"> 1. Habitat in good condition. May achieve some additional benefit by construction of pool features in straightened sections. 2. See general recommendations
<i>Further Assessment</i>	<ol style="list-style-type: none"> 1. Continue to monitor stability. Implement detailed monitoring protocols if instability is observed. 2. Assess the benefits of additional habitat improvements.

Reach 2b (Intersection CR 40/ CR 56- Hensonville Market)

Reach 2b includes the section of Batavia Kill beginning at the intersection of CR 40 and CR 56 in Maplecrest, and runs downstream to the area adjacent to the Hensonville Market. The reach is approximately 1.9 miles in length and ranges in drainage area from 11 mi² to 13.4 mi². The channel receives four unnamed seasonal tributaries through reach 2b. The stream reach is located in Valley Zone 3 and has an average valley slope of 1.3%.

Channel Morphology/Stability

During the project period, the GCSWCD did not conduct detailed assessments of this reach because observations indicated that it is in physically stable condition. The reach sinuosity ranges from moderate to low, and varies from 1.12 through the top of the reach, to nearly straight as it runs adjacent to CR 40, and returns to a sinuosity of 1.11 as it approaches the Hensonville market. The segment was delineated, based on stream type, into five sub-reaches. Beginning at the bridge at CR40 and 56, and continuing to where Van Loan Hill and CR 40 impinge on the floodplain, the Batavia Kill is a B stream type. Beginning at a bedrock sill across the stream and continuing for 1200 feet and ending above the bridge at Wedding Bells Lane (bridge No. 2-26927-0), the reach is a C4. Below this C4 and extending for 1000 feet to the bridge above Wedding Bells Lane, the stream becomes an F; it becomes more entrenched as it approaches the bridge. The fourth sub-reach is a 3500 foot long C type channel. The fifth sub-reach, at the end of the segment, has been identified as B3c.

The Phase I Inventory and Assessment process characterized the reach as having very low streambank erosion with only 300 feet of stream bank erosion noted on the entire 1.9 mile long reach (**Figure VI-26a, Photo A,B,C,D,E,F**). Stream profile (the slope of the stream bed) is controlled by bedrock exposures at the top of the reach as well as near the bottom, and the remnants of an old K-Dam fisheries structure located near the top of the reach (**Figure VI-26a, photo G**) also appears to exert some control on the profile.

In 1998, a single cross section was measured in this sub-reach behind the Harp and Eagle in Hensonville. The cross section was used to obtain information about the stream's hydraulic geometry (width, depth, cross sectional area). This cross section was resurveyed in 2000 and the GCSWCD determined that it had remained stable over that time period (**Figure VI-27**).

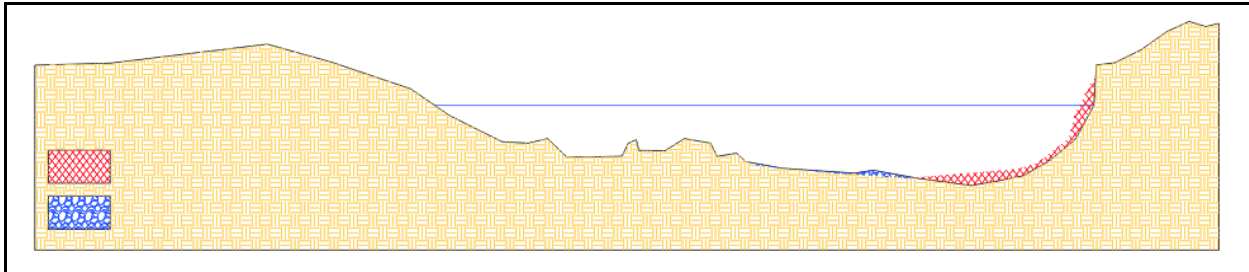


Figure 27: Overlay of 1998 and 2000 monitoring cross section showing erosion (red) and deposition (blue) indicating good stability over the monitoring period.

The channel dimensions of width/depth and entrenchment at the cross section have remained essentially unchanged with only minor scour at the cross section. The channel scour is conceivably caused by a slow change in bed feature from a riffle to a pool and potentially results from the September 1999 flood event. The reach was reexamined after the September 1999 flood event and the reach appeared to have maintained its stability.

Riparian Condition

The riparian vegetation throughout the reach is primarily forest, with a mix of deciduous and evergreens. The understory structure is shrub dominated by willow along the immediate stream corridor. As discussed previously the extremely stable nature of the streambed and controlled flows below the flood control dam has allowed extensive establishment of grasses and sedges within the formerly active stream channel. In the summer months, the reach has good stream cover, and appears to be very favorable for fisheries habitat.

Water Quality

During the assessment of this reach, the GCSWCD did not note any direct water quality impacts. No clay exposures were inventoried, and the reach is not considered to be a significant contributor to system turbidity. There are several residential structures in close proximity to the stream in this reach, but it is unknown if there are any impacts to water quality due to on-site wastewater treatment. In Phase II of the CWC septic rehabilitation and replacement program, several of these properties may qualify for CWC funded inspections, pump outs and rehabilitation as appropriate. Water quality impacts due to roadside drainage are also minimal in this reach. NYCDEP completed acquisition of a large stream side parcel for water quality protection during the course of this project.

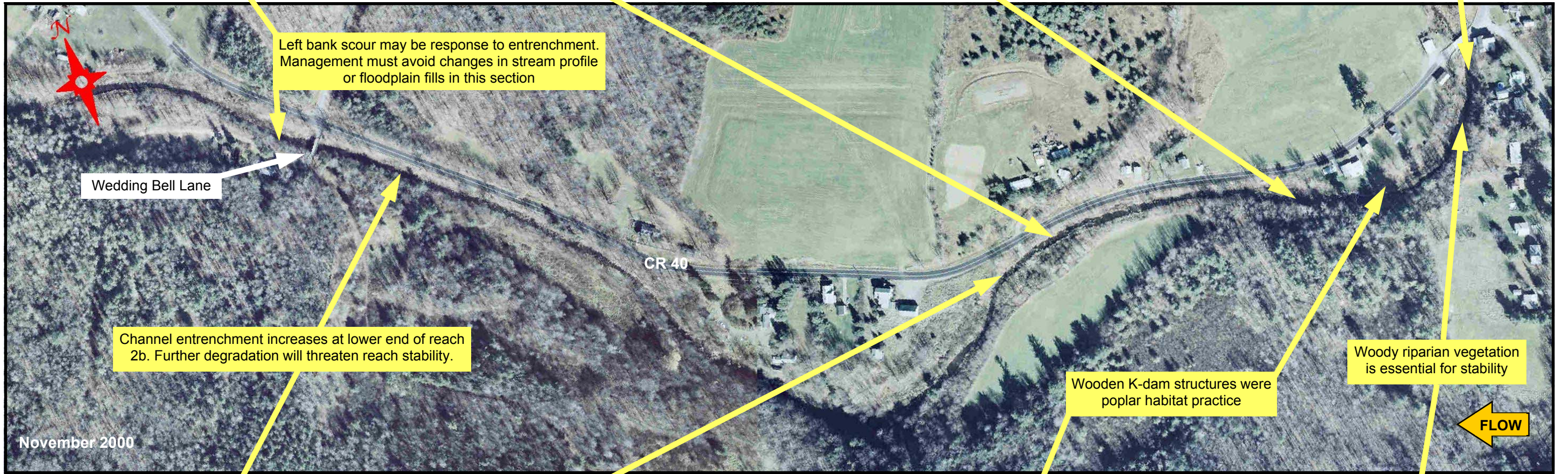
Infrastructure

Management reach 2b is characterized by fairly low impacts either to or from infrastructure. The reach includes only one county bridge crossing at Wedding Bell Lane (#2-26927-0) and the bridge structure does not appear to be impacting stream stability. The hydraulic opening of the bridge is more than adequate to accommodate the bankfull discharge, and the bridge exhibits no signs of backwater deposition nor bridge scour. Immediately upstream of the bridge, approximately 600 feet of channel is influenced by CRT 40 which

is a factor in the increased channel entrenchment (**Figure VI-26a, photo A,E**). This entrenchment also extends a short distance below the bridge, but, despite this entrenchment, the channel appears to be stable under the current flow regime.

Condition Summary

Reach 2b exhibits a very high degree of stability as the result of reduced discharge and sediment supply below the flood control structure, and the presence of good riparian vegetation. While most of the reach is characterized by low entrenchment, with effective floodplain structure, the channel is moderately entrenched over a short segment where CR 40 runs parallel to the stream. This entrenchment does not appear to be a problem, but should be monitored for potential future impacts to the stream. Management activities must be undertaken in a manner which will not increase entrenchment.





A



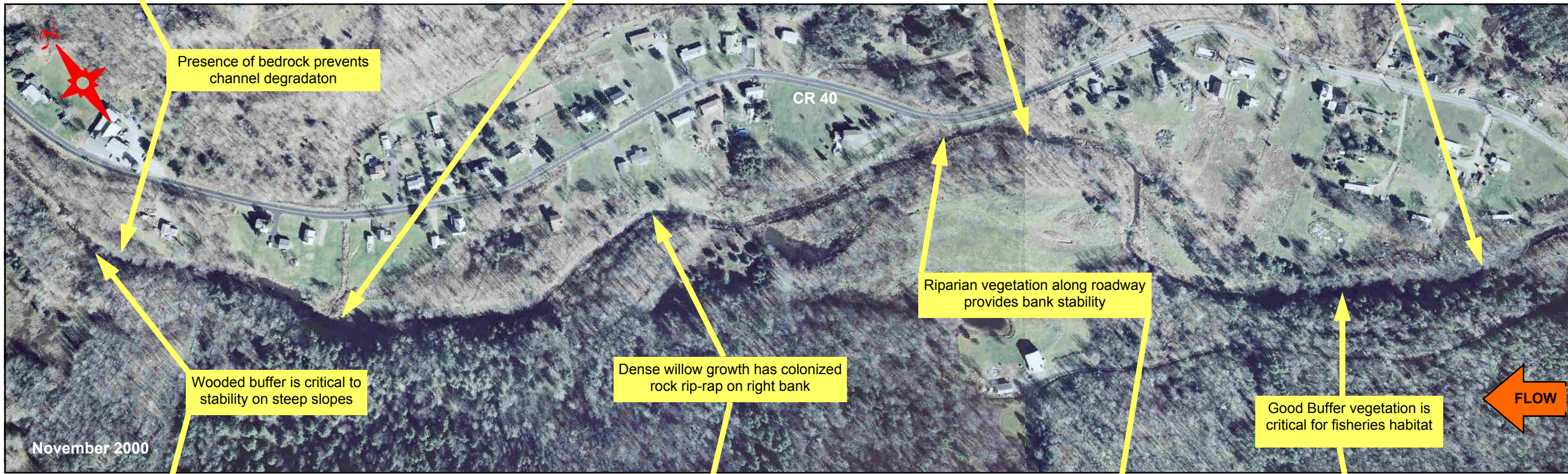
B



C



D



Presence of bedrock prevents channel degradation

Wooded buffer is critical to stability on steep slopes

Dense willow growth has colonized rock rip-rap on right bank

Riparian vegetation along roadway provides bank stability

Good Buffer vegetation is critical for fisheries habitat

FLOW

November 2000

CR 40



E



F



G



H

Figure VI-26b: Reach 2b-Lower

Table VI-6: Recommendations Reach 2b (CR 40 7 56 Intersection to Hensonville Market)	
<i>Intervention Level</i>	Protection
<i>Stream Morphology</i>	<ol style="list-style-type: none"> 1. Prevent further entrenchment of stream reach above and below Wedding Bell Lane. 2. See general recommendations
<i>Riparian Zone</i>	See general recommendations
<i>Water Quality</i>	See general recommendations
<i>Infrastructure</i>	See general recommendations
<i>Habitat</i>	See general recommendations
<i>Further Assessment</i>	<ol style="list-style-type: none"> 1. Continue to monitor stability. Establish additional cross sections in entrenched section above Wedding Bell Lane. Implement detailed monitoring protocols if instability is observed. 2. Assess the benefits of additional habitat improvements.

Reach 2c (Hensonville Market to CR 65)

Reach 2c begins at the Hensonville Market on CR 40, and ends at the county bridge (No. 3-302890) at CR 65. The total reach length is approximately 3,275 feet, with the drainage area ranging between 13.4 mi². and 00.0 mi². Reach 2c is located along the transition between Valley Zone 4 and Valley Zone 3. The average valley slope begins to decrease from 1.3% to 0.7% slope. The valley type is classified as a valley type V, with moderately steep valley slopes generally less than 4% with a “U” shaped glacial trough valley. A crest stage USGS gage station (# 01349850) near Hensonville is located at bridge #3-30285-0, section (see section V-C).

Channel Morphology/Stability

A level one classification characterized the reach as being a moderately entrenched B stream type, with moderate width/depth ratio and moderate to low sinuosity. Further investigation of aerial photographs indicated a potential historic modification of the channel in the area adjacent to CR 65A, and USGS topographic maps also display the stream crossing at CR65 in a different location. This suggests that the channel planform was adjusted, perhaps in the repair or construction of the CR65 bridge. In 1997, the Phase I Inventory and Assessment identified reach 2c as a possible reference reach due to its physical appearance and health after the flood in January of 1996. There was no erosion or visually unstable streambanks noted through the entire reach length and the stream appeared to be in equilibrium with the flow and sediment inputs. A review of aerial photographs from 1959 to 1997 was utilized to evaluate changes in channel planform based on compare historical channel alignments. Measurements showed no significant lateral channel migration since 1959. The sinuosity of reach 2c has remained very low. The available belt width and floodplain is limited by the constraints of the topography and the impingement of County Route 40 and 65A.

In August of 1997, the upper section of Reach 2c was classified as a B3c and surveyed as a potential reference reach. The data collection efforts included the installation of 7 cross sections, and surveys of several hundred feet of channel profile. Two cross sections were monumented and monitored in July of 1998 with the site re-surveyed by NYCDEP SMP in the summer of 1998. All seven cross sections and longitudinal profile was re-surveyed in August of 2000 by GCSWCD staff. The reach has a low to moderately entrenched channel, with a gradient less than two percent. The entire reach has good floodplain structure, with the exception of encroachments from bridge approach fill in the middle and at the bottom of the reach.

The channel bed material is dominated by a cobble material, with channel bedform characterized by a series of rapids and unevenly spaced scour pools. The stream's energy is dissipated by these fluctuations, which in turn maintain the channel form. This channel has very little erosion occurring to its bed and banks. At the top of the reach, there are several areas with exposed bedrock, with additional influences on the channel grade

exerted by a timber K-dam and a boulder sill (**Figure VI-28, photo B,E**) both located just below the CR40 bridge (No. 3-30285-0). The K-dam is in poor to fair condition and has lost much of its scour pool function. These structures are common, having been installed by the NYSDEC, GCSWCD and others under state and federal conservation programs in the 1960s. The boulder sill was constructed in the early 1990 by the Town of Windham, under the technical assistance of the GCSWCD. The sill was constructed to provide grade control protection for a water service main which runs from the Town's well house to Hensonville under the stream. The rock sill has worked well, and survived the 1996 and 1999 flood events. There are no visual signs that either structure is impacting reach stability.

The bed and bank materials have also been classified as stable, with BEHI (bank erodibility hazard index) indicating very low erosion potential throughout the monitoring period. The channel streambed materials are well imbricated and stable, as evidenced by the extensive growth of grasses and sedges within the active channel. Streambank stability near both bridges is somewhat influenced by rip rap.

Riparian Condition:

The riparian vegetation through the majority of the reach consists of a very thin buffer along CR 40 and CR65A. The buffer is composed of a mixed population of mature deciduous species, conifers and grasses on the reaches lower banks (**Figure VI-28, photo A,C,D**). Although the forest buffer is thinner than desired in places along CR65A, the canopy cover appears to be providing excellent shading of the stream channel through the reach and the vegetation is assumed to be a major factor in the stability of the reach. As noted in previous reaches in management segment 2, the stream channel is well vegetated with grasses and sedges (**Figure VI-28, photo D**).

Water Quality:

The Phase I Inventory and Assessment did not indicate any potential water quality problems. Streambank erosion is low, and no clay exposures were noted. The reach is an insignificant contributor to turbidity. At the very bottom of the reach, a large stormwater outfall enters on the left bank above the CR65 bridge. This stormwater system drains a major portion of the Hensonville hamlet, and was substantially damaged in the 1996 flood event. Opportunities to retrofit the stormwater system for water quality improvements should be further investigated.

Infrastructure:

There are two bridge crossings located along reach 2c. The first bridge (No. 3-30285-0)

is located along CR 40, and the second bridge #3-302890 at the lower extent of the reach along CR 65A. Neither bridge appears to be having a negative impact in stream stability. The hydraulic openings are adequate to pass the bankfull flow and no backwater deposition or bridge scour was noted. The lower bridge is characterized by having a center pier which should be observed to insure that debris buildup does not occur. Along CR65A there is evidence of rip rap protection which should be observed after future storm events. The riprap is not currently thought to be having an impact on channel stability, but future repairs must be undertaken so as to prevent triggering stream channel response.

Condition Summary

Similar to reaches 2a and 2b, the overall condition of reach 2c is highly stable. The reach has little to no erosion or streambed instability. Riparian vegetation is fair to good, and there are no known water quality impacts. While roads and bridges do impact the channel's morphology, they do not appear to be causing problems at this time.



A



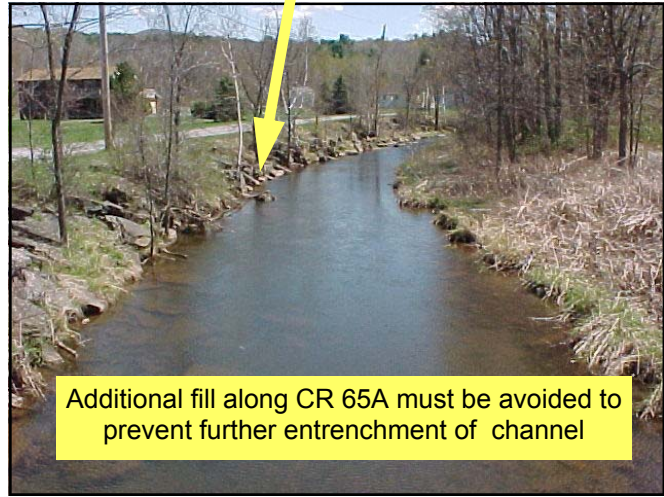
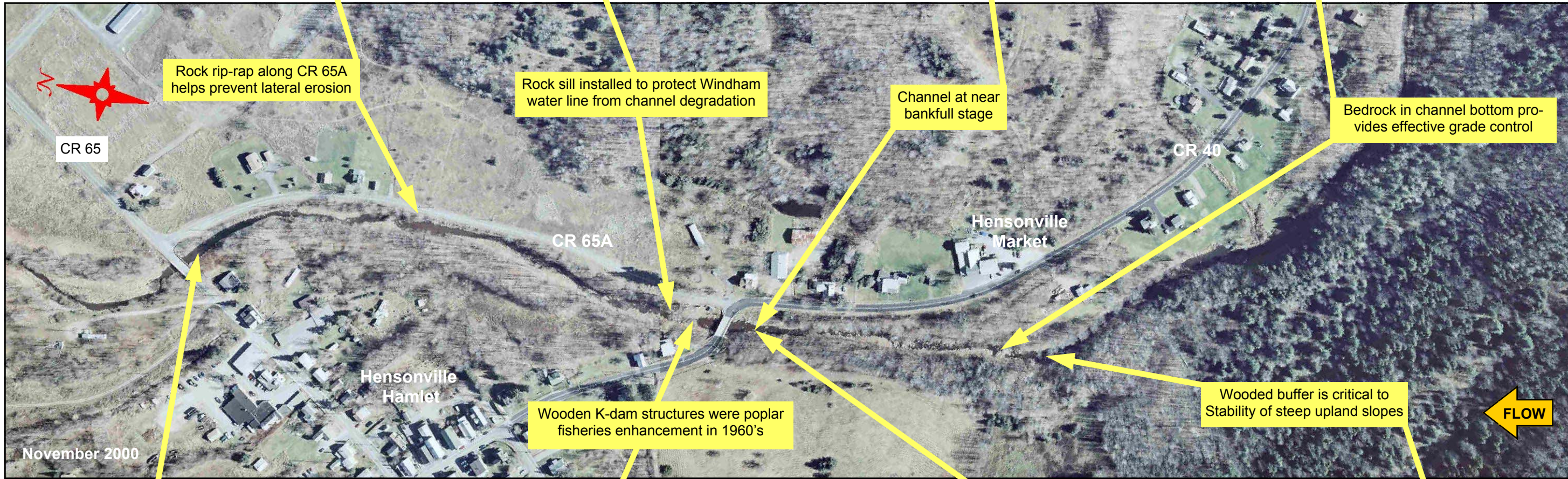
B



C



D



E



F



G



H

Figure VI-28: Reach 2c

Table VI-7: Recommendations Reach 2c (Hensonville Market to CR65)	
Intervention Level	Protection
Stream Morphology	<ol style="list-style-type: none"> 1. Prevent further entrenchment of stream reach below CR40 bridge 2. See general recommendations
Riparian Zone	See general recommendations
Water Quality	See general recommendations
Infrastructure	See general recommendations
Habitat	See general recommendations
Further Assessment	<ol style="list-style-type: none"> 1. Continue to monitor stability. Implement detailed monitoring protocols if instability is observed. 2. Assess the benefits of stormwater retrofits for water quality improvements.