# STILL RIVER GREENWAY REPORT

Characterization of existing Greenway and feasibility study for its extension into Brookfield & New Milford



Prepared for the Housatonic Valley Council of Elected Officials (HVCEO)

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## **SECTON I: INTRODUCTION.**

The Still River Greenway is a passive recreational trail along the edge of the Still River, starting in East Danbury and continuing north to its mouth, at the Housatonic River in New Milford. The location of the Still River where the Greenway is planned, henceforth referred to as the "project area", is illustrated on Figure 1.

The goal of this project is to provide passive recreational public access to the River for citizens to enjoy the revitalized natural resource of the Still River. This overall goal is nested with many objectives:

- To provide opportunities for a full day hike or a short walk along the River and the floodplain for exercise and aesthetic enjoyment of the outdoors in the Housatonic Valley region;
- To provide selected segments of the River walk for disadvantaged individuals along handicap access zones;
- To give the public locations for environmental education experiences, both in a formal curricular setting or passive self-guided walking tours.
- ➤ At selected locations, educate the users of the Greenway as to the history of human interaction with the River;
- ➤Include a canoe and kayak experience along the River, with a well-defined "Housatonic Valley River Trail" which is integrated with the Greenway walking trail throughout the project area.

The foundation of the Still River Greenway and the Housatonic Valley River Trail is the culmination of 30 years of industrial and public works engineering and construction to restore the water quality of the River, culminating in the upgrade of the regional sewage treatment plant (STP) in Danbury in 1993.

The STP upgrade, by significantly reducing ammonia in the discharge of the Plant, dramatically and immediately improved the quality of aquatic life in the River. For example, the Connecticut Department of Environmental Protection, at a location that was virtually devoid of a fish population before the improvements were made to the STP, documented a diversity of fish within the Project Area in 1997 and again in 1999. This upgrade, therefore, can be seen as the step that removed the final limiting factor to recreational water quality that culminated the century long transformation of the River from a sewer to a recreational resource.

However, even prior to the restoration of the water quality of the River, from a land use perspective, a foundation stone was laid in the 1970s, when the Department of Transportation (DOT) committed to creating a Greenway project that would roughly parallel Route 7 north (from Interstate 84), as a long term compensatory mitigation for the construction of the highway.

The history of the development of the Greenway and River Trail project dates back to 1996, when the City of Danbury identified the initial project area and obtained grant funding and donations to provide the public with an opportunity to enjoy the fruits of the restoration of the River to recreational quality.

As an outgrowth of the Danbury project, the Housatonic Valley River Trail was spawned as a collateral project to create a corridor for kayaks and canoe enthusiasts. In 2004, the Town of Brookfield received federal funds to create a 1.5-mile handicap accessible walking trail and bike path along the River, centered on its Town Hall and extending north. With all of these works in progress, the Housatonic Valley Council of Elected Officials (HVCEO) is taking the initiative of cementing all of these areas from Danbury to New Milford into a fully integrated regional trail.

This report intends to convey the current status of all the planning, design/engineering, construction and programmatic dimensions for a key section of the Greenway and the River Trail. Referring to Figure 1 as a reference guide, the "project area" is segmented into various zones, some of which are completed, others in design, engineering or construction, and still others in the conceptual planning stage. On Figure 1, the specific development stage of each segment of the project area is keyed as follows:

**C** = segment is constructed and fully useable by the public

**FS** = Project in conceptual stage, awaiting completion of feasibility study.

**E** = Project site in design and/or engineering

Northern terminus
of Still River Greenway
(Still River mouth al
Housatonic River)

Brookfield-New Milford Border

Still River Corrido
(Iturquoise)

Brookfield Center, north

This report focuses exclusively on Segments 3 and 4 in northern Brookfield and New Milford. Other segments of the full project corridor are characterized in the HVCEO Website.

This report is formatted geographically into various zones that are indicated on the Map. Functionally, there are two broad categories of end uses for the corridor along the River:

- >The Greenway walking trail, paralleling the River on its floodplain;
- >The River Trail on the water itself.

The format of this report is organized geographically, from south to north (with the flow of the River) and includes characterizations of both the Greenway and the River Trail in each of the segments.

#### SECTION II: GENERAL DESCRIPTION OF THE GREENWAY AND RIVER TRAIL

The Greenway walking trail has four main segments. The first segment, from the southernmost point of the corridor in Commerce Park in Danbury to the Brookfield border, is largely completed. A significant portion of the second section of the project from Brookfield Town Hall to 777 Federal Road and is in engineering and design. It should be noted that the segment of the Greenway from the Danbury border to the beginning of the Brookfield project near Town Hall, is currently undefined, but is conceptually part and parcel of the entire project, with few obstacles to bridging this "missing link". The next section from Brookfield Town Hall to 777 Federal Road is in design. Each of these segments (from Danbury to 777 Federal Road in Brookfield) is described in other sections of the HVCEO Website.

The section of the Greenway, from northern Brookfield to the mouth of the Still River at the Housatonic River, is currently the subject of a feasibility study. The text and accompanying illustrations in Parts III and IV, below, convey the substance of this feasibility study and provide a conceptual design for the Greenway.

Section III describes Segment 3, from 772 Federal Road to the Brookfield-New Milford border. Note that Part IIIA – IIIC is the only section of the project where there are two "alternative" corridors. Hence, part of the feasibility study provided in Part IIC discusses the characteristics, advantages and disadvantages of each of these alternatives. When a decision is made on the more desirable route in this area, it will be exclusively described in future updates to this report, and the alternative will be deleted.

Section IV describes Segment 4 of the Greenway, which extends from the Brookfield-New Milford border to the mouth of the Still River at the Housatonic River. This section describes the challenges and opportunities of creating an outdoor "Riverine / floodplain" learning center at a section of the River with numerous oxbows, the obstacle of passing hikers through the Candlewood Valley Golf Course and the final stretch through HarryBrooke Park to Lovers Leap on the Housatonic River.

Each of theses sections of the feasibility study includes a general characterization of the riverine / floodplain corridor along the River, a description of environmental points of interest, a summary of construction requirements, a statement of proximity to proposed or existing parking areas and an identification of easement requirements along the river corridor.

Finally, it should be noted that the River Trail is part and parcel of the corridor. The River Trail characterization is integrated in Sections IIIA and IIIB, below. In addition to describing the physical layout of the River Trail, locations of potential boat launches and areas of the River where blockages due to fallen trees inhibit the trail are discussed here.

### III. SEGMENT 3:NORTHERN BROOKFIELD (from 777 Federal Road to New Milford)

This section (and part IIIA, below) provides more than the narrative character description of the Greenway and River Trail. A feasibility study is presented here, along with references to Figures 2 - 3, below. Also, as segment 3 of the Greenway provides two distinct corridors, this part of the report separately describes both routes: Part IIIA describes Corridor 3A (west side of the River to New Milford border), then Part IIIB portrays corridor 3B (east side of the corridor to the New Milford border).

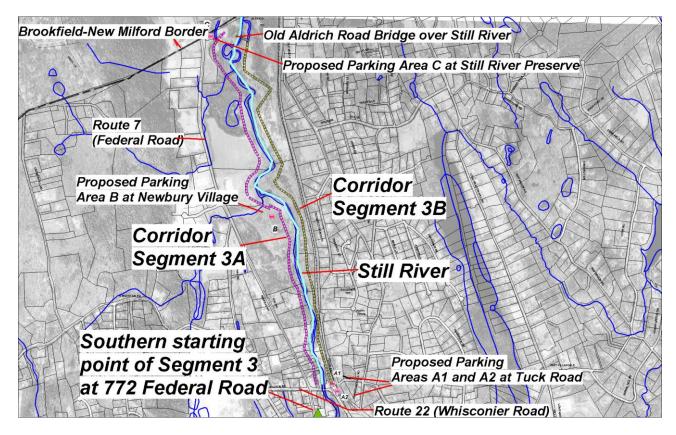


Figure 2: Segment 3 of Greenway. Segment 3A (purple line) is on west side of Still River Segment 3B (green line) is on east side of River

From 777 Federal Road, the Greenway Corridor must travel immediately east of a condominium development that is currently under construction and then through a developed commercial property just south of Whisconier Road (Route 22). This short segment will be merely a connecting walkway from the southern Brookfield project to the proposed Greenway north of Whisconier Road. There are no significant Environmental Points of Interest along this short connector and it will not be considered further in this feasibility report.

The points of interest discussion in sections IIIA and IIIB, below, should be used as a basis for deciding the primary corridor of the route of the Greenway.

Finally, a comparative analysis of the two alternatives in this section (IIIC) presents the advantages and disadvantages of each alternative corridor. When a decision is made, Town and regional officials will update this report with an exclusive characterization of the route that is selected. The southern end of both corridors would be served by one of two proposed parking areas (A1 and A2 see figure 2), while the northern end would be directly accessible to proposed parking area C on the Weanotinogue property.

# III A Corridor 3A (west side of the River). See Figure 2.

**Corridor characterization**: From its southern anchor point at 777Federal Road, the corridor passes east of a commercial plaza and a condominium development to Route 25 (Whisconier Road). The corridor must then traverse this road.

The users of the River Trail will temporarily exit at a location immediately behind 777 Federal Road. The new federally funded multi-use trail arriving from the south on the Still River's west bank will temporarily terminate at this location. Brookfield's long-range trail plan calls for it to continue northward downstream of this location. The original HVRT brochure stated that just downstream from the take out point there are "Dangerous rapids and dams. Paddlers must exit and reenter north of Brookfield Four Corners." The brochure map also includes a red STOP sign with the notation MUST EXIT HERE

The rapids become well developed at the Brookfield Craft Center and thereafter (see view of rapids at Craft Center). Hence, users will need to portage to a location beyond the rapids on either Segment 3A or 3B and will follow the Greenway Trail. To accommodate this portage, take out steps were constructed about 900 feet before the Route 25 Bridge over the Still River and adjacent Brookfield Craft Center. Additionally, a boat launch will be constructed to allow users to re-enter the River, at an appropriate location on Segment 3A or 3B. There are no signs denoting the River Trail. Rather a sign on the western bank about fifty feet before the take out point states "DANGER AHEAD." Then at the take out

itself, a second sign states "DANGER EXIT HERE." Both signs include a simple and easily grasped drawing of a canoe in the midst of falling over a dam.



The mandatory take out steps are located to the rear and south side of the retail building at 777 Federal Road (Route 7), at the southernmost point adjacent to an overflow parking lot south of the commercial building. This is approximately 900 feet south of Route 25. Historically a hazard, the River Trail process is the first ever effort to warn the boating public of the natural rough water here.

After crossing Route 25 (Whisconier Road), the user of the Greenway trail and the portage from the River Trail will either walk over the bridge and cross to the east corridor (3B) or cross directly without going over the bridge) to the west side of the River and travel on the west side (corridor 3A).

For the west corridor, the trail will then pass on to 12 properties that are currently privately owned (see Figure 2). Most of these properties are either commercial in use, though some have a vacated (though developed) character.

Note that the first eight (southernmost) properties (Lots D07091, D07097, D07042, D07043, D07044, D07045, D07046, D07047, D07052) on this corridor are commercial and relatively small and narrow, and the Greenway will be limited in width by proximity to the developed portions of the lots. The next 4 properties (Lots D07053, D07052D06057, D06065) are longer, appear to be vacated and have more of an opportunity for a wider buffer from the Greenway trail to the developed portion of the site along Federal Road. On all 12 of these properties, the Greenway passes on the west end of the lots on the top of a steep embankment over the River.

The twelfth property north of Route 25 (lot D06065) grades down from the ridgeline, bringing the hiker at the same grade as the River, at the Newbury Village site. The Greenway then passes 3 large commercial properties:

a. Newbury Village is a 5-10 acre site where there is a condominium complex that is partially developed and nearing completion. There is however, sufficient space for the

Greenway to be developed between the retention pond at the western edge of construction and the River.

North of the retention pond there is a well-developed hiking path that can be used as the Greenway. It should also be noted, that a stipulation to their inland wetland permit requires Newbury Village to provide a permanent easement for the Greenway, so acquisition / easement will not be an issue along this part of the site.

It should be noted that the Newbury Village development was stipulated with the condition to create a public boat launch for users of the River Trail. If Corridor 3A is selected, this will be the location where boaters return to the River after a 0.5 mile portage. The users of the River Trail will be portaging from the take-out steps at the beginning of this corridor (at 777 Federal Road) to Newbury Village. While the area upstream from the 777 Federal Road South take out location has never been navigable in the past, as noted above the HVRT is the first effort to include signs on the River to this effect. The elevation of the Still River drops fairly rapidly thru this section. The U.S. Geological Society provides live measurements of daily streamflow at this location.

**b**. <u>Immediately north of Newbury Village</u>, there is a 15-acre industrial property (currently operated by Intercontinental Lubricants) that fronts the River on its east side. There is currently a large enough buffer between the developed portion of this facility and the River for a Greenway trail to be constructed.

The entire stretch of this property and the properties of Brookfield North, LLC and the Weantinogue Land Trust to the north is largely a floodplain, adjacent to the River that periodically inundates with water from storm events. The costly endeavor of raising the walkway above the floodplain forest by an elevated boardwalk can be avoided by providing notice in all documentation for the trail that it is closed following major storm events. Typically, the periodic flooding from storm events recedes within 24-48 hours.

Placing water elevation markers at strategic locations that notify the user that the trail is closed when a specified water mark on a pole is submerged can also reinforce this policy.

- **c.** Immediately north of Intercontinental Lubricants, there is a 44-acre site, owned by Brookfield North, LLC, which is currently in a state of development construction. Similar to Intercontinental Lubricants, there is a wide enough buffer for the Greenway.
- **d**. Finally, north of Brookfield North LLC, the corridor by the River enters the property of the Weantinogue Land Trust, which is undeveloped open space dedicated to conservation and passive recreation. This property continues north to the abandoned Aldrich Road Bridge over the Still River that could allow passage to Segment 4 on the east side of the River, if corridor 3A is selected.

**Environmental Highlights and Points of Interest**. Starting at the southern end of corridor 3A alternative, the Greenway is on the top of a steep bluff overlooking the River. The first 8 properties traverse through the developed "backyards" of the developed commercial sites, but nonetheless provide a scenic overlook of the rapids of the River as the Still overlooks the AJ Tuck Company across the River, to the east.

From the ninth property (lot # D06053) northwards to Newbury Village, as the land use is more abandoned, further from the developed portions of the site, the view of the watercourse from the top of this ridge is spectacular, as it overlooks the dam, the rapids and the undeveloped open space on the east side of the River. Photo 1, below, illustrates this ridgeline view of the River. Also, there is a footpath that is evident on the top of this ridge (see photo 2).

Though the gradient is steep, there is an opportunity to create a serpentine side spur path to the River (note: the gradient negates this portion of the River as a take-out point for boaters). Such a side spur path could allow an environmental education and aesthetic dimension to the Greenway, as it brings the hiker close to the rapids.



Photo 1:View of rapids below dam from ridgeline on segment 3A corridor



Photo 2: cleared pathway along east ridge) overlooking River

When the corridor grades down to the Newbury condominium site, the Greenway would be somewhat detracted for a short stretch by the developed character of the condominiums on the west. However, immediately north of the retention pond to the northern edge of the lot, the major potion of the property's River frontage, there is a developed hiking path that traverses through a combination of scrub-shrub forest, small meadows, wetlands, and the riverine buffer (see photo 3).

Such combinations of habitat provide a rich potential for nature education and aesthetic appreciation of this environmental mosaic. At the northern edge of this property, there is a tributary (Lime Kiln Brook) that discharge to the Still River (see photo 4). This tributary affords an opportunity for an environmental education station that could explain the classification system for first-third order streams and tributaries (i.e., Lime Kiln-Still-Housatonic).



Photo 3: Developed hiking path at Newbury Condominiums



Photo 4: Lime Kiln Brook (7-8 feet wide) at mouth discharge to Still River

North of Newbury Village, the corridor enters a floodplain and palustrine (swamp) environment that has a well-developed scrub under story and is crossed by one other tributary. This floodplain and swamp is the first broad stretch of this type of habitat on this corridor and should be utilized as an environmental point of interest, if segment 3A is selected. For all three properties north of Newbury Village, the Greenway path would pass very close to the Still River itself for large stretches of this segment, offering opportunities to explain the dynamics of this riverine habitat and the history of pollution and restoration.

As an historic note, the Brookfield Craft Center fronting on the Still River and Route 25 was once a gristmill with a water wheel tapping the rapid flow here until 1920. The mill's dam remained here until damaged by Hurricane Diane in 1955 and was removed thereafter. The Still River plunges through a significant elevation drop from the former gristmill to Newbury Village. Hence the River traverses through a gorge at this location.

The distance of this gorge along the Still River (not meandering now that it is in this steep section) from the Route 25 Bridge northerly to the first dam is only about 400 feet, or less than one tenth of a mile. The Still River elevation at the top of the dam is 250 feet. A landmark on the east bank between the two dams is the A. J. Tuck Company, an electroplating business, operating here since 1925.

The distance from Route 25 northerly to the second dam is a little over four tenths of a mile, with the water elevation at the top of that dam at 225 feet. After this second dam the Still River is then free of rapids until the vicinity of Harrybrooke Park in New Milford.

- > Trail Clearing requirements. The development of a functional walking trail requires an initial clearing of a 5-foot pathway, including chain saw work, trimming, loading, disposal and surface compaction. An estimate of \$1.50 per linear foot was provided by a by a local landscape / construction contractor who visited all areas of the proposed Greenway. For corridor 3A on the east side of the River, clearing will be required from Route 25 to Newbury Village (approximately 3700 linear feet) and from north of Newbury Village to the Aldrich Road bridge (approximately 3900 linear feet). This totals to 7800 linear feet, equating to a preliminary cost estimate of \$11,400.
- **Construction Requirements**. On the southernmost twelve properties in this corridor, there is not much construction required, other than clearing a path, placing trail markers and providing a buffer of shrubs or a split rail fence to separate the Greenway from the developed portions of these lots. Further north, there may be a moderate amount of work, predominantly labor, if a serpentine trail is created from the top of the ridge to the River.

As indicated above, a trail already exists along the majority of the River frontage of Newbury Village, and the properties immediately south of the condominiums. However, as the Greenway enters the northernmost properties along this corridor segment, there is construction required for boardwalk crossings of the two tributaries and a substantial clearing effort for the Greenway development through the thick scrub layer in the floodplain and swamp.

Some costs would also be incurred in creating a parking area at the entrance to the Still River Preserve off of Route 7. Finally, there may be a significant cost for upgrading the abandoned bridge to a permanent pedestrian crossing of the Still River at the northern end of this segment, if this westerly corridor is established for the Greenway (see photo 5). This

bridge is currently non functional and is situated on the Still River Preserve (**SRP**) near the Brookfield-New Milford border.

Egress from the River Trail on this segment is from the take-out steps behind 777 Federal Road. This is already constructed (designed by John Monroe of the National park Service and constructed by three Brookfield High School students in 2002). Hence no further construction is needed. However, re-access to the River is needed at Newbury Village Condominiums. Plans are for a canoe/kayak ramp on the Still River to be built behind the recently constructed Newbury Village Condominiums, (see map of complex) located at 901 Federal Road (Route 7). Mike Rosado of the U.S. Department of Agriculture is scheduled to do the design. This housing complex fronts on a relatively placid section of the Still River between the 225 and 220-foot contour lines. It is well downstream of the non-navigable upstream gorge area with its rapids and two dams.

The River Trail requires a boat launch for re-entry to the watercourse. A CT DEP Recreational Trails grant for \$14,160 has been awarded to King's Mark to design and construct a launch ramp at Newbury Village. This may occur as early as 2007.

However, a corresponding take out point needs to be in operation downstream before this put in can be constructed, otherwise be no point of exit prior to the rapids by Harrybrooke Park downstream. Alternative take-out locations may be constructed at the Weantinogue Preserve at the Brookfield New Milford border (near the bridge) and at the New Milford Animal shelter.



Photo 5: Current condition of Old Aldrich Road bridge over Still River at SRP

Additional costs for trail construction include the construction and installation of three boardwalk sections (anchored to the floodplain) for the three major tributary crossings ( Limekiln Brook and two other permanent watercourses north of Newbury Village) on the east side of the River (estimated at \$900).

- > Parking lot access. The southern end of Segment 3A is approximately 800 feet from the proposed parking location A1 and 200 feet from proposed parking area A2 (see Figure 2 and photos 6 and 7). The northern end of this corridor terminates at proposed parking area C on the Weantinogue property. At the mid-section of Segment 3A, there is also a parking area B, that will be situated at dedicated parking locations at the Newbury Village condominiums. There is also a need for exploring parking access arrangements at the commercial complex at 777 Federal Road that could be used for the benefit of river trail users who would terminate their trips at this location to avoid the portage.
- **Easement Requirements.** The GIS map lists the easement or acquisition corridors that will be need on each property for alternative 3A. It is summarized in the list below:

#### a. Lot D07091

Address: 281 Whisconier Road

Name of owner: Whisconier Property Management

Size of lot (acres):

Greenway size (acres):

Upper value of 30 ft Greenway buffer<sup>1</sup>:

\$32,258

#### b. Lot D07097

Address: 825 Federal Road Name of owner: Cynthia Jelenffy

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer:

\$45,534

#### c. Lot D07042

Address: 831 Federal Road
Name of owner: 831 Federal Road, LLC

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$19,954

#### d. Lot D07043

Address: 833 Federal Road Name of owner: JBM Properties

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$27,744

#### e. Lot D07044

Address: 837 Federal Road

Name of owner: Kim Yong
Size of lot (acres): 0.54
Greenway size (acres): 0.05
Upper value of 30 foot Greenway buffer \$23,527

#### f. Lot D07045

Address: 839 Federal Road

Name of owner: Kim Yong
Size of lot (acres): 0.60
Greenway size (acres): 0.03
Upper value of 30 foot Greenway buffer \$9,969

g. Lot D07046

Address: 843 Federal Road

Name of owner: Merle/Nancy Borste Estate

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$35,855

h. Lot D07047

Address: 849 Federal Road Name of owner: Michael Sproviero

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$33,626

i. Lot D06057

Address: 857A Federal Road

Name of owner: Richard Greene, Joan Pierpoint Est

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$42,594

j. Lot D06052

Address: 871 Federal Road Name of owner: Riverview LLC

Size of lot (acres): 5.5
Greenway size (acres): 0.262
Upper value of 30 foot Greenway buffer \$14,886

k. Lot D06065

Address: 891 Federal Road Name of owner: Gereg Helen Estate

Size of lot (acres): 5.1
Greenway size (acres): 0.167
Upper value of 30 foot Greenway buffer \$12,116

I. Lot D05067

Address: 901 Federal Road Name of owner: Newbury Village

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer **Not Applicable** (easement required by permit)

m. Lot C05001

Address: 993 Federal Road

Name of owner: Intercontinental Lubricants

Size of lot (acres): 15 Greenway size (acres): 0.52 Upper value of 30 foot Greenway buffer \$100,435

n. Lot C04012

Address: 1055 Federal Rd Name of owner: Brookfield North LLC

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

\$1.47

\$101,244

o. C03003

Address:

Name of owner: Weantinogue Land Trust

Size of lot (acres): Greenway size (acres):

Upper value of 30-foot Greenway buffer Not Applicable (part of Still River Preserve)

**IMPORTANT**: the entry in this list for the value for the *greenway buffer areas* of each of the properties (a-o), listed above, the amount listed is a rough approximation, based upon a formula that apportions the percentage of the total value of the property, based upon the ratio of the size of a 30-foot buffer to the total size of the property. *NOTE*: this is a very rough upper value and is intended to be used only as a comparison of the total easement costs of Segment 3A vs. Segment 3B. It is most likely that the actual cost of easement/acquisition for these properties will be substantially lower than this or even donated to the project.

Using this formula, the relative cumulative property value (compared to segment 3B) for the greenway buffers of the properties on the west side of the River (segment 3A) totals **\$534,064**.

Finally, it should be noted that there needs to be a formal easement agreements negotiated between the Town of Brookfield and the owner of the commercial plaza at 777 Federal Road to institutionalize public access to the take-out steps. This agreement could also include dedicated parking arrangements at the plaza for the River Trail and Greenway users. For the boat launch area at Newbury Village, Brookfield Zoning Commission stipulated an easement for a canoe and kayak ramp on the property (Permit # 200200697, page 4). It states part that "The applicant shall provide an easement... for the following purpose: an area, in size and location mutually acceptable, on the shores of the Still River, to be used for recreational purposes such as canoe and kayak launching, etc. and the right of vehicle access thereto." Right of access by vehicles is included in the Brookfield Zoning Commission special permit.

> **Trail Maintenance**. Once the trail is constructed there is a need for on-going maintenance to maintain its functionality. The Greenway Trail will require an annual inspection (recommended in Spring) and a scheduled mowing and brush-clearing schedule (at least three times per year). This can be institutionalized through a "Management/Maintenance Manual" and an annual commitment from the Town of Brookfield to fund this service through its budget. Although volunteer clean-up days can be

utilized as events to engage citizens in the work to maintain selected segments of the Trail, relying on volunteers is NOT a feasible option for maintaining the clearance of the full corridor throughout the year. The scope of this work is too large for volunteer work.

Maintenance of the River Trail is more complex. Unlike the Greenway path, which can still be traversed, between scheduled maintenance work, when brush overgrowth or tree blow down occurs, a blockage on the River will stop boating access and presents a potential safety hazard to users. Currently, the manager of the River Trail periodically checks the condition of the River and coordinates volunteer groups for litter clean up. Also Eastern Mountain Sports has, since 2005, sponsored an annual River clean-up day in May. However, such volunteer efforts are keyed to litter removal. Tree blockages need to be contracted to a logging firm. Hence, the "Management/Maintenance Manual" needs to address this critical issue for the future functionality of the River Trail. This will require an annual commitment to retain the services of a logging contractor to clear blockages as needed, as well as a volunteer "River keeper team" - experienced paddlers whose would be responsible of periodic checks for obstructions.

# III B Corridor 3B (east side of the River). See Figure 2.

**Corridor characterization.** Alternative segment 3B parallels 3B, but on the east side of the River. Note that the rapids interrupt the River Trail at this location, requiring exiting of the River, and portaging to below the rapids at New bury Village (see more detailed discussion in Section IIA1, above).

Starting at its southern access location, the Greenway route proceeds either from proposed parking area A2, near the old Railroad Station Building or from proposed parking area A1 at AJ Tuck's property (see photos 6 and 7, below). In the former case, the route will traverse Tuck Road for approximately 600 feet before entering the open space north of AJ Tuck, near proposed parking area A1. If proposed parking area A1 is created, the walk enters the open space north of AJ Tuck directly.



Photo 6: Proposed parking area A2 across from Old Railroad building



Photo 7: Proposed parking area A1; AJ Tuck property. Tuck Rd on right.

As indicated on Figure 2, the entry route travels adjacent to the railroad property and enters into lot D06 063, approximately 30 feet to the north of proposed parking area A1. This is a ridge that is approximately 150 feet from the River. Although the view of the river is somewhat limited (due to forest cover) and not nearly as dramatic as the walk along the western side, the presence of the watercourse is very evident and the area is scenic.

Approximately 150-200 feet north of the entry point into lot D06 063, the gradient from the ridge to the River tapers and the Greenway trail would traverse diagonally down slope (in a

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northwesterly direction). From this point to the terminus, the Greenway trail would stay close to the east shore of the Still River.

There are two small tributaries to the Still River bisecting the corridor, requiring boardwalk crossings. Also, the entire stretch adjacent to the River is a floodplain that periodically inundates with water from storm events. The costly endeavor of raising the walkway above the floodplain by an elevated boardwalk can be avoided by providing notice in all documentation for the trail that it is closed following major storm events.

Typically, the periodic flooding from storm events recedes within 24-48 hours. Placing water elevation markers at strategic locations that notify the user that the trail is closed when a specified water mark on a pole is submerged can also reinforce this policy.

Approximately 1700 - 1800 feet north of the decent to the floodplain, the Greenway enters the property of the Still River Preserve, owned and managed by the Weantinogue Land Trust. There is an established trail through the entire length of the property along the River. At one location, the Weantinogue trail detours slightly east, away from the River, to pass through a managed meadow, which is an environmental point of interest, as discussed below. The meadow is approximately 1 acre in size and is enclosed by a palustrine floodplain.

After exiting the north end of the meadow, the trail returns to the edge of the River, crosses a tributary on a boardwalk plank crossing and exits Segment 3B, at the New Milford border, as the walkway passes the abandoned bridge to the west. The refurbishment that will be required for the bridge for Segment 3B will only be necessary, if the proposed parking area B is created for use of the corridor 3B alternative. Otherwise the user would continue north into Segment 4 without crossing the River.

**Environmental Highlights and Points of Interest.** The walkway starts near the site of a historic mill site (see photo 8). However, the walkway from parking lot A1 detours this dam, such that a side trail would need to be developed to view the dam, if an environmental point of interest is established here.



Photo 8: Historic AJ Tuck Mill dam

The walkway passes through a combination of upland mixed mesiphytic forest, riverine floodplain, some pockets of palustrine wetlands, scrub shrub woodland and a 1-acre meadow. This is a rich combination of habitats, particularly near the meadow, as discussed below. Also noteworthy as a general note, is the relative remote and quiet character of the entire area of Corridor 3B, along the west side of the River.

All of the properties are currently undeveloped and isolated by the River on the west and the railroad tracks on the east. In fact, if this corridor is selected for development of the Greenway, the Town of Brookfield and/or the managing organization for the Greenway should strive for as much easement protection for these properties as possible.

The upland forest along the top of the ridge is one of the few sections of the Greenway that traverse this type of habitat. Hence, the entry into this upland woodland should be noted with environmental education signage. As the walkway descend to the floodplain, it enters the gateway of a more water-based environment, which should also be noted with environmental education signs.

On the Weantinogue property, the meadow site, which the trail passes through, is particularly noteworthy (see photo 9). Encircled by scrub shrub, floodplain and palustrine swamp environments and in close proximity to the River itself, this area represents a very good example of multiple "ecotones": edges between different habitats where wildlife diversity is rich and environmental sensitivity is high.

If segment 3B is selected as the alternative, it is recommended that the meadow be established as an "environmental education" laboratory that include passive self guided environmental observation stations as well as programmatic outreach opportunities for

area schools. The area can be enhanced for environmental observations and research with minor construction of wildlife viewing blinds.



Photo 9: Upland meadow on Weantinogue property

Finally, it should be noted that the Greenway trail passes very close to the Still River itself for large stretches of this segment, offering opportunities to explain the dynamics of this riverine habitat and the history of pollution and restoration.

> Trail Clearing requirements. The development of a functional walking trail requires an initial clearing of a 5-foot pathway, including chain saw work, trimming, loading, disposal and surface compaction. An estimate of \$1.50 per linear foot was provided by a by a local landscape / construction contractor who visited all areas of the proposed Greenway. For corridor 3B on the west side of the River in Brookfield, the clearing requirements are approximately 6000 linear feet, from the proposed parking area at AJ Tuck Company, north to the beginning of the existing trail on the Still River Preserve on land owned by the Weantinogue Land Trust. Hence the clearing costs for corridor 3B will be approximately \$9,000.

**Construction Requirements.** Construction requirements along this segment are relatively modest and in some cases optional. If the Greenway project intends to take recreational users to view the dam, a side spur down the slope of property would require the creation of a serpentine trail up/down the ridge that may require water breaks and delicate construction to avoid erosion.

The other optional feature is use of the bridge, if a parking access at the entry point of the Still River Preserve on Aldrich Road is created. As in the case of using the bridge to cross over the River for alternative 3A, public use of this bridge may require refurbishment to allow continual use.

The clearing of a 5-10 foot trail corridor is required initially and would have to be periodically maintained on an annual basis. There are two tributaries that require boardwalk crossings, one at the southern border of the Still River Preserve and a second near the Aldrich Road foot bridge. All of these boardwalk sections need to be anchored to the floodplain. A contractor estimated the construction of 10-foot long sections of these crossings at \$300 per unit. Hence, the estimated cost for this item for corridor 3B will be approximately \$600). Finally, installation of environmental education signs along the entire length of the Greenway and the construction of bird blinds on and around the meadow will enrich the Greenway as a public environmental resource.

Finally, construction of a separate boat launch area on the east side of the Rive does NOT necessary. If Segment 3B is selected, the River Trail can still proceed with the construction of the boat launch at Newbury Village, as discussed in Section IIA1, above.

**Parking lot access.** The southern end of Segment 3B has direct access to proposed parking lot A1 and is approximately 200 feet from the proposed parking location A2 (see figure 2). The northern end of this corridor terminates near proposed parking area B on the Weantinogue property. Note also the need for parking access at 777 Federal Road, as discussed in Section II A1, above.

**Easement Requirements.** The GIS map lists the easement or acquisition corridors that will be need on each property for alternative 3A. It is summarized in the list below:

a. Lot #: D07039

Address: 12 Tucks Road Name of owner: AJ Tuck and Co

Size of lot (acres): 1.27
Greenway size (acres): 0.23
Upper value of 30 foot Greenway buffer \$66,614

b. Lot #: D06063

Address: 14 Tucks Road Name of owner: Alvin/ Lois Tuck

Size of lot (acres):

Greenway size (acres):

Upper value of 30 foot Greenway buffer

1.4

0.47

Upper value of 30 foot Greenway buffer

\$51,166

c. Lot # D06065

Address: 891 Federal Rd
Name of owner: Gereg Estate east

Size of lot (acres): 5.1
Greenway size (acres): 0.56
Upper value of 30 foot Greenway buffer \$40,637

d. Lot # D05067

Address: 901 Federal Rd
Name of owner: Newbury Village east

Size of lot (acres):

Greenway size (acres): 0.5

Upper value of 30 foot Greenway buffer Not Applicable (easement required in permit)

e. Lot # D05068

Address: 26A Prospect Dr

Name of owner: CL & P Size of lot (acres): 18.73 Greenway size (acres): 1.62 Upper value of 30 foot Greenway buffer \$12,150

f. Lot #: C03003

Address:

Name of owner: Weantinogue Land Trust

Size of lot (acres): Greenway size (acres):

Upper value of 30-foot Greenway buffer **Not Applicable** (part of Still River Preserve)

**IMPORTANT**: the database entry for the value for the *greenway buffer areas* of each of the properties (a-f), listed above, the amount listed is a rough approximation, based upon a formula that apportions the percentage of the total value of the property, based upon the ratio of the size of a 30-foot buffer to the total size of the property. *NOTE*: this is a very rough upper value and is intended to be used only as a comparison of the total easement costs of Segment 3A vs. Segment 3B. It is most likely that the actual cost of easement/acquisition for these properties will be substantially lower than this or even donated to the project.

Using this formula, the relative cumulative property value (compared to segment 3A) for the greenway buffers of the properties on the east side of the River (segment 3B) totals \$170,562.

Finally, as indicated in Section IIA1, above, it should be noted that there needs to be a formal easement agreement negotiated between the Town of Brookfield and the owner of the commercial plaza at 777 Federal Road to institutionalize public access to the take-out steps. This agreement could also include dedicated parking arrangements at the plaza for the River Trail and Greenway users.

> Trail Maintenance. Trail Maintenance requirements as stated at the end of Section IIA1, above are repeated here and also apply to other segments of the River and Greenway corridor. Once the trail is constructed there is a need for on-going maintenance to maintain its functionality. The Greenway Trail will require an annual inspection (recommended in Spring) and a scheduled mowing and brush-clearing schedule (at least three times per year). This can be institutionalized through a "Management/Maintenance Manual" and an annual commitment from the Town of Brookfield to fund this service through its budget. Although volunteer clean-up days can be utilized as events to engage citizens in the work to maintain selected segments of the Trail, relying on volunteers is NOT a feasible option for maintaining the clearance of the full corridor throughout the year. The scope of this work is too large for volunteer work.

Maintenance of the River Trail is more complex. Unlike the Greenway path, which can still be traversed, between scheduled maintenance work, when brush overgrowth or tree blow down occurs, a blockage on the River will stop boating access and presents a potential safety hazard to users. Currently, the manager of the River Trail periodically checks the condition of the River and coordinates volunteer groups for litter clean up. Also Eastern Mountain Sports has, since 2005, sponsored an annual River clean-up day in May. However, such volunteer efforts are keyed to litter removal. Tree blockages need to be contracted to a logging firm. Hence, the "Management/Maintenance Manual" needs to address this critical issue for the future functionality of the River Trail. This will require an annual commitment to retain the services of a logging contractor to clear blockages as needed, as well as a volunteer "River keeper team" - experienced paddlers whose would be responsible of periodic checks for obstructions.

# III C Comparative Analysis of Alternative 3A vs. 3B

The table below summarizes the advantages of the two alternatives (east side of River versus west side of the River) for Segment 3 of the Greenway:

Segment	Advantages	Disadvantages
3A (west side	Spectacular view of River from top	The width of the buffer needed for
of River)	of gorge	easements at southern end is
		extremely narrow
	Newbury Village already has hiking	Numerous easements required from
	trail developed	commercial properties that are
		developed and in use
	Good example of major tributary	Cost of easements is approximately
	discharge to Still River as illustration	3 times higher than segment 3B
	of first – third order streams	Bridge over Ctill Diver at New
	Traverses through a variety of habitats	Bridge over Still River at New Milford border will need engineering
	Habitats	evaluation and possible
		refurbishment.
		Longer walk needed to parking area
		at southern end.
		Total trail construction cost
		estimate: \$546,300
3B (east side	Remote area that is relatively	Lacking spectacular view of River
of River)	isolated from future development	from ridgetop.
	Weantinogue property has	Canoe/kayak launch on east side
	developed trail along River	by Newbury Village disconnected
		from segment 3B Greenway.
	Meadow on Still River preserve	
	offers rich opportunity as an	
	environmental learning/observation	
	Center	
	Relatively few easements (3) required.	
	Bridge evaluation and refurbishment	
	are not necessary (only needed if	
	parking lot B is used).	
	More direct access to proposed	
	parking areas at southern end	
	Total trail construction cost	
	estimate: \$180,100.	

# IV. Segment 4 (New Milford corridor on east side of River). See Figure 3.

Due to the complexity of issues along the Greenway section of this geographical stretch the River Trail characterization is broken out separately in Section IIIB, below, to allow continuity of the description and issues of creating a continuous walkway in Section IIIA.

# III A Greenway Trail

Corridor Characterization. Segment 4 enters New Milford immediately north of the pedestrian bridge on the Still River Preserve (lot # 4/34). It continues on the Weantinogue property, along the River through a floodplain forest for approximately 750 feet, at which point there is a small tributary, which will need a boardwalk crossing.

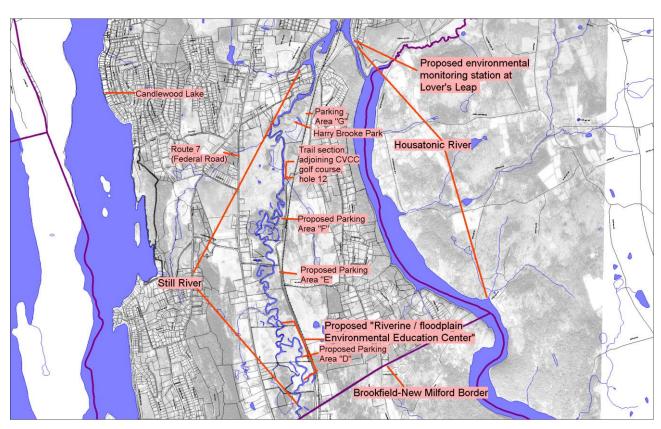


Figure 3: Segment 4 of the proposed greenway in New Milford

After the tributary, the environment transitions to a floodplain field, until the northerly border. This property is permanently preserved as open space (see Photo 10).



Photo 10: Property marker for the Still River Preserve sites

Immediately north of the Weantinogue parcel, the Greenway enters property of the State of Connecticut Department of Transportation (lot 4/38). This is a very strategic property with regard to development of the Greenway for the following reasons:

- 1. It is flat and accessible from Old Aldrich Road, and can be a parking alternative for proposed parking area D (see figure 4);
- 2. It is a floodplain field that can be developed into an environmental education area for observations and nature study.

As implied, this is a point of interest, as this floodplain field can provide the user with the experience of the dynamic interaction of a floodplain with a River. It also abuts a relatively large open field area on the two properties to the north (together comprising 47 acres), which provides a sweeping vista of the floodplain field (see photo 10, below). As the Greenway proceeds north into lots 7/86 and 7/76, the River curves through numerous oxbows, in some cases branching into "oxbow off of oxbows".

This provides a great opportunity to educate the recreational users with field understanding of the dynamics of a River cutting through a floodplain with graphic features, such as undercut banks, trees being undermined and the River gradually breaking through the neck of an oxbow that will branch the River into two segments, to cut out an island and rejoin.



Photo 11: Broad view of floodplain from Old Aldrich Road looking toward Rte 7

The accessibility of this flat floodplain field is dependent upon moisture regime. During spring melt and after major storm events, this area is likely to remain wet for longer periods, as the dynamics of the River utilize the "sponge" of the floodplain more intensively than other stretches of floodplain forest or fields in the Project Area. Hence, there may be a long-term value for installing a continuous boardwalk along this stretch of the property along the approximately 3300 linear feet along the River. However, given the high budget scope of a continuous boardwalk, this can be deferred, creating a mowed walking path with use restrictions for flooding events referred to in previous sections of this Report.

The two properties to the north of the DOT parcel – 7/86 and 7/76 – are privately owned and require easement or acquisition. These properties are extensively posted, with no trespassing prohibitions. However, immediately north of 7/76, the Greenway re-enters publicly accessible land at lot 7/77.1, owned by the Weantinogue Land Trust. A floodplain forest, with pockets of palustrine wetlands, dominates this parcel as it travels along the Still River. The property ends at Cross Road. At the intersection of Cross and Erickson Road, there is an opportunity for proposed parking lot E (see photo 12).



Photo 12: Approximate location of proposed Parking Area E

The Greenway Trail crosses Cross Road and re-enters the property of Weantinogue Land Trust at parcel 7/20. The Greenway would then traverse approximately 2500 feet through a floodplain forest, interspersed with floodplain fields, palustrine wetland pockets and two tributary crossings. Travel along this property is very difficult with scrub growth, wet areas and tributary crossings. A significant effort will be needed to clear this property and maintain it over the years. The Greenway travels past the New Milford Animal Shelter, which is the site of another potential parking area (see lot F on figure 1).

North of this open space, the Greenway enters the property of Candlewood Valley Country Club (lot 10/21). The extension of the Greenway through this property poses the single most formidable challenge to the feasibility of this project, due to the extreme proximity of the River to the fairways of the golf course and the incompatibility and liabilities of walkers of the Trail and golfers playing golf on the fairways.

However, in a meeting with the manager of the golf course on 12/05/06, she related the sentiment from the owners to discuss this issue to seek an amenable solution for access across their property in the future (referenced from meeting notes, available form the files of KEC).

However, in its current state, the only way that users of the Greenway can travel through this property without detour is by construction of a "covered bridge" walkway that would protect the Greenway user from golf balls driven form the fairways of Holes 12 and 13. This would not only involve extensive construction costs, but would require approval by the owner and modification of the inland wetland permit to allow this installation. Figures 4 - 7 below, depict two separate options for channeling walkers through the golf course, in a manner that would protect them from golf balls from the tee and the fairway.



Figure 4: Plan view layout of CVCC fairway # 12 with "sheltered walkway" option



Figure 5: Close-up view of "Sheltered walkway" concept

NOTE: All drawings (figures 4–7) prepared by Stan Kozuchowski, Model Engineer

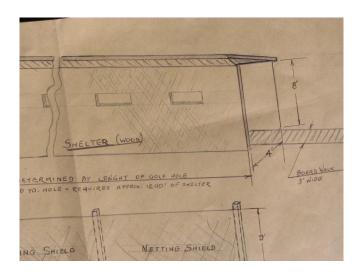


Figure 6: Cross-sectional view of "Sheltered walkway" concept

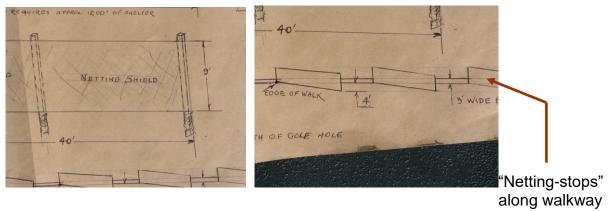


Figure 7: Plan views of netting protection for walkers

The alternative is to detour users of the Greenway entirely around this property. This would detour the user up to Erickson Road from Lot 7/20, walking along the road for approximately 1600-2400 feet, before re-entering the proposed Greenway from the east, into HarryBrooke Park.

However, this detour would require another easement form one of the 4 private residential properties along Erickson Road to the north. Although Erickson Road is not one of high traffic volume, there is a long-term drawback of this detour in that it "disconnects" the continuity of the Greenway, detracting from the functional integrity of the trail.

The final property along Segment 4 is HarryBrooke Park (lot 14/1). This Park is private – managed by the HarryBrooke Trust, which is under the direction of a Board of Directors. The Board establishes policies and oversees the fiduciary functions pertaining to its

management. An informal (and unofficial) meeting was held with the Board of Directors on December 5, 2006 with Jack Kozuchowski, Greenway project consultant (KEC) and Peg Daley, the manager of the Housatonic Valley River Trail.

At the meeting, the Board was presented with an overview of both the Greenway and the River Trail. KEC indicated that the feasibility report was intending to recommend the passage of the Greenway on the east side of the River in New Milford, including a pathway through HarryBrooke Park, subject to the formal approval of the Board. The Directors indicated that this was a feasible proposal that would be considered by the Board at the appropriate moment, and that the only limitation they could foresee was keeping the trail away from the Museum *(referenced from meeting notes, available form the files of KEC)* 

The Greenway path through the Park can initially pass close to the River, but would detour at the pavilion to the roadway that leads to the exit at the northern end of the Park (see photo 13). At the end of the exit road there is an existing parking lot, which is designated as proposed parking lot G for the Greenway (see Photo 14). This parking area, within sight of the mouth of the River at the Housatonic River (across the Still River Road) marks the northern terminus of the Greenway.



Photo 13: Exit Road of HarryBrooke Park, proposed as end of Greenway Trail



Photo 14: HarryBrooke Park parking lot; proposed Parking Area G of Greenway

Finally, it should be noted that the extensive and scenic trail network that is being developed as the "Jeanne Garvey" trails is approximately one-half mile east of the Still River Greenway terminus. Also, users would be able to spot cars to travel this short distance or even hike along the side of the road to the Jeanne Garvey Trails. This would be a significant dimension of interconnection of these two open space corridors. A programmatic connection between the Still River Greenway and the Jeanne Garvey trails is the development of a river monitoring network that would allow academic research access from the proposed "Riverine/Floodplain" Environmental Education Center on Aldrich Road (see discussion, page 26) and the Housatonic River at Lover's Leap. The former location would function as a "background" location for the latter (Lover's Leap) location on the Housatonic, as a long-term documentation of improvements in water quality in the Housatonic River downstream of the GE facility in Pittsfield, Massachusetts. This "upgradient vs. downgradient" monitoring network is described in detail in a grant proposal submitted by the King's Mark Environmental Team for funding form the GE settlement administered by the State of Connecticut DEP.

**>Environmental Highlights and Points of Interest**. As previously indicated, the southernmost end of Segment 4 continues through a floodplain forest, managed by Weantinogue Land Trust. The edge between the forest and the River represents significant ecotones, edging riverine, stream bank and floodplain communities. Wood Ducks and other waterfowl may nest and certainly use the River. The forested floodplain also hosts a rich array of wildlife, which is catalogued by the Land Trust. This is a point of interest, in that it is a preserved open space owned and managed by an entity dedicated to managing the parcel for conservation functions.

In fact, the potential exists for expansion of this large tract of open space by negotiating easement, licensure or acquisition arrangements with the Connecticut Department of Transportation (DOT), which owns lot 4/38, immediately north of the Weantinogue

Preserve. The habitat of wet and floodplain meadows on this site (and parcels 7/86 and 7/76, adjoining to the north) is a significant environmental resource, and offers a large potential for developing a riverine floodplain environmental education center as described in the "Corridor Characterization" section, above.

The extreme amount of meandering in this area demonstrates the fluid dynamics of a river migrating through its floodplain over time. This entire complex of properties (lots 4/38 along with lots 7/86 and 7/76) provides environmental research potential with potential study sites in the floodplain, along the oxbows and on the stream banks. Environmental restoration/enhancement demonstrations could also be sited within this vast floodplain.

A large part of the value of this section of the Greenway Trail is its sheer size. Together, the properties total approximately 100 acres of a vanishing open field floodplain habitat.

A practical way of viewing the challenge of creating a "Still River floodplain education zone" here is to focus on negotiations with the State of Connecticut DOT for use of lot 4/38 for this purpose. Preserving this piece would expand the Still River Preserve's adjoining floodplain forest habitat by 14 acres and add the flood plain meadow edge.

Concurrently with this effort, preserving a healthy buffer for the Greenway along the River on the private properties 7/86 and 7/76 to the north of the DOT parcel would be a way of maintaining preservation and passive recreational access along this key riverine environment.

The Weantinogue properties immediately south (lots 7/77 and 7/77.1) and north (7/20) of Cross Road are further examples of floodplain forests that also provide good examples of river dynamics, since the Still meanders significantly through this area. There are also examples of dead trees ("snags") and trees that are undercut by the River in this area. There are inclusions of floodplain meadows and wet meadows here, which provide further environmental dimension to this area.

North of the New Milford Animal Shelter, the Greenway enters Candlewood Valley Country Club. The conflict of hiking and golf are discussed in the "Corridor Characterization" section, above. However, this linear corridor along the River, if it can be preserved with a "covered bridge" style walkway is more than just a passageway through the golf course. Creating the covered structure, with openings on the River (west) side, will focus the walker on the River itself, which at this location changes to a single channel and straightened character with flow accelerating toward the waterfalls and outlet further to the north.

Finally, the stretch of the Greenway through HarryBrooke Park brings the Greenway close to the rapids and the waterfalls that are adjacent to the Museum building on the site (see Photo 15). The waterfalls represent an unusual feature of the flow of a river in a significant watershed such as the Still River. In most cases, the mouth of a river in a large watershed is characterized by a relatively flat gradient, often braiding out into a marsh type of delta. However, recent geologic history of this section of the Still River watershed, caused by

recent glaciation, shifted the watercourse relatively suddenly form the east, causing this gradient.

Unfortunately, the access restrictions to the buffer area around the Museum building will not allow the users of the Greenway sight of the waterfall. However, there is an opportunity to provide users of the Greenway trail in HarryBrooke Park with an environmental education station with graphic photographs of the waterfalls, the recent geologic history that formed the falls and the location (i.e., "You are here") of the reader in perspective of the vast watershed of the Still River. Finally, such an environmental education station can be a "parting shot" summary of the entire scope of the regional Greenway Trail.



Photo 15: Waterfall at HarryBrooke Park at sunset

#### IVB. Characterization of the River Trail: Brookfield border to the Housatonic River

This section of the Still River is relatively flat, with many meanders and an adjacent relatively wide flood plain. To better visualize the low slope, consider the fact that in Brookfield just south of the New Milford Town Line the River elevation is 220 feet, and does not then descend to the 210 foot contour until it reaches the north end of the Candlewood Valley Country Club, an air distance of about 2.2 miles.

As to the south, throughout this section the right or east bank of the River is closely bounded by the tracks of the Housatonic Railroad Company. However, just north of the town line Aldrich Road, and then its extension as Erickson Road, runs between the River and the railroad tracks.

Then the left or west bank looks west towards the backs of commercial properties fronting upon Route 7, that route paralleling the Still River at a distance averaging about one thousand feet.

Northerly from the town line the landscape around the meandering Still River is quite open, with traffic on nearby Route 7 visible. A landmark about half way through this section is the modern 1993 bridge carrying New Milford's Cross Road over the Still River. In this vicinity the landscape around the still intensely meandering River is more wooded than that just passed to the south.

From near the Brookfield Town Line northerly to the Cross Road Bridge over the Still River, the nearby north-south running Aldrich Road provides potentially excellent access to the east bank of the Still. This low-lying road is close to the level of the flood plain here and would be the logical route for emergency access to paddlers if ever needed.

The record of the exploratory paddle by veteran paddlers Ed Foss and Joe Hovious in September of 2002 that launched at Cross Road found that north of that point to Harrybrooke Park "there were two tree blockages requiring portage around each one, and several other blockages that were passable. A good part of this section runs through the country club's golf course and is a beautiful area to paddle." They also saw the vicinity of the Cross Road Bridge as a good put in location.

North of Cross Road, the Still River is paralleled on its east bank by Erickson Road, which with Aldrich Road provides a traffic corridor in this area. This road also runs very close to the Still and its many meanders are visible to passing traffic.

At a point about half way between Cross Road and the bridge taking Erickson Road over the railroad tracks, between the right bank of the Still and Erickson Road is the Regional Animal Control Shelter. This Town of New Milford owned facility should be studied as a potential take out point, especially as one is needed in this vicinity before the upcoming rapids. The Still River is especially close to the north side of this property.

High paddle mileage compared to airline mileage here is due to the extensive meanders in this section of the Still River. Three components of the 2.93 mile total between access points are first the 1.18 miles from the Newbury Village put in to the New Milford Town Line, then from the Town Line north to Cross Road .94 miles, and then from Cross Road north to the animal shelter .81 miles.

A golf course (Candlewood Valley Country Club) abuts the left or west bank of the Still. It is a privately owned, public eighteen-hole golf facility situated on 175 acres. Running downslope west to east towards the Still River from its Route 7 frontage, the scenic qualities of the Country Club and the Still River nicely reinforce each other. Some of the Club's greens are adjacent to the River (see discussion of trail access, in IIA, above).

About .27 miles downstream from the animal control shelter the golf course has a pedestrian bridge over the Still River. This is a landmark and potential emergency access point. After this point the golf course is on both banks of the Still River.

Across from the northern end of the Candlewood Valley Country Club property on the Still's west bank is the Harrybrooke Park property on the east bank. While the most recent

March 1, 2007

change in elevation of ten feet required the Still River 2.2 airline miles to descent, the similar air distance (discounting the River's meanders) between the next two ten foot contour lines of 210 feet and 200 feet requires an air distance of a much lesser three tenths of a mile. This is a telltale indicator or increasing steepness.

Due to these rapids a mandatory take out location or locations before or at the Park, coupled with possible development of an overland portage route, are important planning issues. Across from Harrybrooke Park a landmark on the west bank is the Harrybrooke Condominium complex.

This relatively steep section of the Still River runs along the entire western edge of Harrybrooke Park. There are severe rapids on the Still River here. Looking back, the paddle distance from the golf course pedestrian bridge to the rapids here (considered to be a point between the home in the park and the Harrybrooke Condos) is .85 miles.

# Paddling in from the Housatonic River to the first Still River rapids. Source: hvpaddleclub.org.

The street address for Harrybrooke Park is 64 Lanesville Road in New Milford. A narrow one-way bridge crosses over the Still River to link the Park with Lanesville Road, the Park being on the Still's east bank.

From this little bridge the Still River's rapids can be seen upstream, while down stream the River widens into a broad pool and is placid. Note that it is an easy and very scenic paddle southwesterly from the Housatonic River up the Still River to this pool location, under the narrow bridge into Harrybrooke Park.

This attractive recreational resource was created in 1965 when the late Frank A. Harden willed that his estate should become Harrybrooke Park. It is under the supervision of an appointed board of managers. A description of the Park states "There is a very nice area of small waterfalls and lots of white water as the river descends quickly over bear rock ledges heading northeast."

The main parking area for Harrybrooke Park is by its northernmost point off of Still River Road, downstream from the rapids.

Park activities include picnicking, walking, playground use, fields for sports, Still River fishing in summer, hiking and cross country skiing.

The length of the watercourse between the rapids and the Still River Road Bridge is .39 miles, with the first portion of about 650 feet or so being the rapids and an obvious "no paddle zone."

Downstream from the little entrance bridge into Harrybrooke Park there are three more bridges over the Still River as paddlers landmarks. The first is the old bridge that once carried Lanesville Road over the River. This bridge is now closed to vehicular traffic and open to pedestrians only. The parking for Harrybrooke Park, accessed off of Still River Road, is at the eastern end of this bridge.

Next along the watercourse is the bridge carrying Still River Road. This opened in the 1990's as a replacement for the Lanesville crossing just discussed. It is a wide and attractive span.

A put in portage for long distance Still River paddlers needs to be developed in this general vicinity, in conjunction with the proposed Harrybrooke take out. The remaining paddle distance from the Still River Road Bridge to the edge of the Housatonic River is .45 miles.

Just before it enters the Housatonic River, the Still River then flows under a bridge carrying the Housatonic Railroad. Then it enters the Housatonic River, which is part of Lake Lillinonah at this point.

According to its FERC permit, Lake Lillinonah elevations may vary from 193.8 feet to 198.3 feet. As the trail head at the Marriott Courtyard Inn back upstream in Danbury was at an elevation of 290, from that point the Still River has dropped about 95 feet.

**>Construction Requirements.** The construction projects in Segment 4 that are required, along with those that are considered optional but desirable are summarized in the Table, below:

Lot #	Project description	Required	Optional
4/34	<ul><li>Clearing, mowing, trail markers</li></ul>	✓	
	Ten foot section of boardwalk over tributary		
4/38	Clearing, mowing, trail markers	✓	
4/38	Bird blinds, nesting boxes, sections of boardwalk		✓
4/38	Construct gravel parking lot		✓
7/76	Clearing, mowing, trail markers	✓	
	Ten foot section of boardwalk over tributary		
7/86	Clearing, mowing, trail markers	✓	
	Construct boat launch / take-out steps	✓	

7/77.1	Clearing, mowing, trail markers	✓	
7/77.1	Construct gravel parking lot		✓
10/20	Clearing, mowing, trail markers	✓	
	Ten foot section of boardwalk over tributary		
10/21	Construct 3300 foot covered walkway	<b>✓</b>	
14/1	Construct environmental education station		✓
14/1	Construct take-out steps	✓	

# > Cost estimates for Construction on Segment 4 of Greenway:

Cost Category	Source	Amount
Easements	New Milford Assessor's Office real estate value	\$41,000
	of property, using formula in footnote at bottom	
	of table	
Clearing Costs: Brookfield border – CVCC	Contractor estimate (Dreamscapers Inc, LLC) at \$1.50/linear foot	\$12,150
Boardwalk crossing of 4 tributaries	Contractor estimate (Dreamscapers Inc, LLC) at \$300/10 foot unit	\$1,200
Install 8' chain link fence between CVCC hole 12 and river walkway	Contractor estimate (Dreamscapers Inc, LLC)	\$25,000
Subtotal for "F Option" for New Milford section of Greenway (see footnote 2)		<b>\$90,350</b> .
OPTIONAL: Boardwalk for Riverine/floodplain environmental observation center	Contractor estimate (Dreamscapers Inc, LLC) for 300 foot boardwalk	\$14,000
OPTIONAL: Parking Area at Riverine/floodplain environmental observation center	Contractor Estimate for Construction of (Steiner Development Corp.))	\$50,000
Sheltered walkway at CVCC Golf Course	Contractor estimate (Dreamscapers Inc, LLC)	\$36,000 (see footnote 3)
Total Cost for "C Option" for New Milford section of Greenway (see footnote 2)		\$154,350

FOOTNOTE ON EASEMENT COSTS: The value in this part of table is based on the following formula: (Area of land req. for Greenway) / Total property area) \* (Real Estate Value of Property It should be noted that this is a WORST CASE TOP VALUE of a negotiating range. Since the location of the easement is on area classified by Public Act 90 as "Open Space", it is considered by this statue, as having a "much lower assessed value"

FOOTNOTE 2 on Subtotal / Total Cost codes: "F" Option = "Ford", "C" Option = Cadillac

FOOTNOTE 3 on Total costs for Option "C": installation of the sheltered walkway negates the costs for the 8-foot chain link fence of the "F" Option.

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> Trail Maintenance. Trail Maintenance requirements as stated at the end of Section IIA1, above are repeated here as it also applies to the New Milford sections of the River and Greenway corridor. Once the trail is constructed there is a need for on-going maintenance to maintain its functionality. The Greenway Trail will require an annual inspection (recommended in Spring) and a scheduled mowing and brush-clearing schedule (at least three times per year). This can be institutionalized through a "Management/Maintenance Manual" and an annual commitment from the Town of Brookfield to fund this service through its budget. Although volunteer clean-up days can be utilized as events to engage citizens in the work to maintain selected segments of the Trail, relying on volunteers is NOT a feasible option for maintaining the clearance of the full corridor throughout the year. The scope of this work is too large for volunteer work.

Maintenance of the River Trail is more complex. Unlike the Greenway path, which can still be traversed, between scheduled maintenance work, when brush overgrowth or tree blow down occurs, a blockage on the River will stop boating access and presents a potential safety hazard to users. Currently, the manager of the River Trail periodically checks the condition of the River and coordinates volunteer groups for litter clean up. Also Eastern Mountain Sports has, since 2005, sponsored an annual River clean-up day in May. However, such volunteer efforts are keyed to litter removal. Tree blockages need to be contracted to a logging firm. Hence, the "Management/Maintenance Manual" needs to address this critical issue for the future functionality of the River Trail. This will require an annual commitment to retain the services of a logging contractor to clear blockages as needed, as well as a volunteer "River keeper team" - experienced paddlers whose would be responsible of periodic checks for obstructions. Annual maintenance of all boat launch and take-out steps is also needed.

>Parking lot access. The southern end of Segment 4 of the Greenway is accessible to proposed parking lot C, by crossing the Still River at the bridge on the New Milford-Brookfield border (Weantinogue property) and walking approximately 600 feet west toward Federal Road. If proposed parking area D is developed, the access is from a lot 4/38, approximately 1500 feet northeast of the border; this parking area can be developed between Old Aldrich Road (on the east) and the Greenway trail.

The northern terminus of segment D finishes at proposed parking area G, which is already in place for the users of HarryBrooke Park.

Additionally, proposed parking area E could be constructed on Weantinogue property on lot 7/77 on the corner of Cross Road and Erickson Road. A parking spot could also be constructed on the southern end of the portion of lot 10/20 where the New Milford Animal Shelter is situated (proposed parking lot F).

**Easement Requirements.** The GIS map lists the easement or acquisition corridors that will be need on each property for Segment 4. It is summarized in the list below:

a. Lot # 4/37

Address: Danbury Road

Name of owner: Weantinogue Land Trust

Size of lot (acres): 17.7 Greenway size (acres): 0.63

b. Lot # 4/38

Address: Aldrich Road

Name of owner: State of Connecticut DOT

Size of lot (acres): 13.7 Greenway size (acres): 1.0+

c. Lot # 7/76

Address: Aldrich Road Name of owner: Chester Walajtys

Size of lot (acres): 27.8 Greenway size (acres): 3.2

d. Lot # 7/77.1

Address: Aldrich Road

Name of owner: Weantinogue Land Trust

Size of lot (acres): 5.0 Greenway size (acres): 0.83

e. Lot # /20

Address: Erickson Road

Name of owner: Weantinogue Land Trust

Size of lot (acres): Greenway size (acres):

e. Lot # 10/20

Address: 86 Erickson Road Name of owner: Town of New Milford

Size of lot (acres): 2.5

Greenway size (acres):

f. Lot # 10/21

Address: Danbury Road

Name of owner: Candlewood Valley Road

Size of lot (acres): 20.2 Greenway size (acres): 0.94 g. Lot # 14/1

Address: Lanesville Road

Name of owner: United States Trust Company of New York

Size of lot (acres): 41

Greenway size (acres):